Subjectivity Under the Smartphone:
A Rhetorical Examination of Digital Communications Technologies

by

Shannon Marie Lodoen

A thesis
presented to the University of Waterloo
in fulfilment of the
thesis requirement for the degree of
Doctor of Philosophy
in
English

Waterloo, Ontario, Canada, 2024

Examining Committee Membership

The following served on the Examining Committee for this thesis. The decision of the Examining Committee is by majority vote.

External Examiner	Casey Boyle Associate Professor, Department of Rhetoric and Writing The University of Texas at Austin
Supervisor	Andrew McMurry Professor, Department of English University of Waterloo
Internal Members	Lai-Tze Fan Associate Professor, Departments of English and Sociology (Cross-Appointed) University of Waterloo
	Winfried Siemerling Professor, Department of English University of Waterloo
Internal-External Member	Shana MacDonald Associate Professor, Department of Communication Arts University of Waterloo

Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

This dissertation examines how the ubiquitous presence of the smartphone is reshaping what it means to be a subject, and how people experience their subjectivity, in a digitally mediated society. I explore this question by analyzing the smartphone as a persuasive agent on both a micro (individual) and macro (societal) level. In positioning the smartphone as a persuasive agent, I move beyond traditional rhetorical analyses in or of digital environments to a multimodal analysis of the rhetorical nature of the smartphone itself. My analysis combines two empirical approaches for studying digital rhetoric—captology and procedural rhetoric—into what I call a *captocedural rhetorical approach.* The dual approach I employ considers both the intentions of phone designers and actual usage patterns for users, with a focus on the affordances of the smartphone that encourage and enable these particular usage patterns to emerge.

With this approach, I identify three aspects of the smartphone's address that make it so persuasive and pervasive: it is *constant*, it is *customizable*, and it alters the perceived *consequentiality* of the actions, interactions, and procedures conducted through and with these devices. Each of these three elements can be examined on both an individual level (looking at the smartphone's captological features) and a broader level (which considers the processes and procedures that the smartphone either necessitates or facilitates). In both cases, it is clear that the smartphone is becoming more integral in daily life more quickly than any previous communications technology; as such, it is important to assess how and why this device differs from previous technologies in terms of its affordances and effects. By scrutinizing the smartphone's impact on users' behaviours, beliefs, and values, I aim to bring it back to the forefront of thought and discern some of the key consequences of its "taken-for-grantedness" (Ling).

Acknowledgements

There are many people to whom I want to extend my sincere thanks and gratitude:

To Andy, who has been a staunch source of support and guidance over the better part of two degrees at the University of Waterloo—who would have guessed that, a decade after mentioning to Rose at the Hockey Office that you were an English Professor at UW, you would be signing off on my doctoral thesis?

To Lai-Tze, a true rockstar who always made time to help me, no matter how many other things she had on her plate; I am so grateful for the advice, insight, and encouragement you have given me.

To Win, whose wide breadth of knowledge, enthusiasm for critical theory, and kind words of encouragement helped to strengthen this dissertation throughout its various iterations.

To my external examiners, Dr. Casey Boyle and Dr. Shana MacDonald, for their generous feedback and valuable insights; your input will enrich and strengthen the ideas discussed here as they develop in future projects.

To Alexi and Lara, my "day ones" in this program—what a rollercoaster this degree has been. I'm so glad to have had you both along for the ride.

To my writing-mates Paula, Kyle, and the Agraphia crew, who provided invaluable support and motivation in the final stretch.

To the Canadian Society for the Study of Rhetoric for providing a warm and welcoming scholarly environment in which to debut many of the ideas discussed in this project.

To the Social Sciences and Humanities Research Council of Canada (SSHRC) and the Government of Ontario (OGS), whose generous support helped to fund the research undertaken in this project.

To my family—Rose, Nathan, Luke, Nicole, and many relatives with whom I've discussed (or rather, whom I've subjected to discussions of) smartphone-related matters. Your support and interest in my work throughout the years has meant so much to me.

To Joseph, whose encouragement, superb cooking, and reminders to go for frequent walks helped to get me through to the end. Yes, you can read it now.

Table of Contents

List of Figures

Preface

When explaining my dissertation research to various people, a question I was asked frequently was "do *you* have a smartphone?" The asker was often surprised, given that I am generally critical and skeptical of the devices, to hear that I do. The fact that I also have Facebook, Instagram, and Twitter (albeit solely for my academic presence) was a further curiosity; how can someone who researches the negative impact of these digital developments still engage with them? Of course, this is more or less exactly what my dissertation aims to find out. That is, why and how can someone (like me) who is fully aware of the negative effects of smartphones still "justify" having and using one?

The answer, as we will see, is that the smartphone has become so entwined into the fabric of daily life that such a disentanglement is often nearly impossible. I say "nearly" because, of course, I could throw my phone out the window right now and still have a very full and productive life (though I would struggle without Google Maps), especially given the more ambivalent attitude I have cultivated towards my smartphone. And yet, because of the way smartphones enable certain networks and relationships in contemporary life, this easy detachment is not possible for many people of my generation (Millennials) or the following (Gen Z). Smartphones have become a "passport" to many of the aspects of modern life that people participate in, particularly in a world where people are often geographically or temporally separated from family and friends. On an even more basic and psychological level, smartphones and the apps and platforms they support are designed in very particular ways to encourage users to engage with them. The recently released, unredacted court documents in the case against Meta by three dozen American states in 2023 clearly highlight the thought-process of platforms designers who have both the science-backed strategies and the user data to create ever more engaging and immersive user experiences. And so, the question that we should ask is not why or why not someone has a smartphone. Rather, a much more interesting question is: *how and why have smartphones become ubiquitous to the point of indispensability in modern life?* In asking this two-pronged question, the mechanisms by which smartphones function, both as personal mobile devices and within society, begin to come to light.

I want to be clear that the following dissertation is not a criticism of smartphone users. Because technologies are designed to be used in specific ways, to specific ends, average users often lack the power (due to lack of technical know-how or awareness of deeper design motives) to challenge or change these technologies and how they function, at least on a large scale. And so, what I want to do is to deconstruct, and thus demystify, the inner workings of how smartphones work *on us*. My hope is that this demystification, framed in the language of rhetoric and media theory, will afford users greater empowerment and understanding through awareness. I'm not recommending that we all throw our phones out the window—that's simply not a feasible response, for reasons I will discuss. However, I do urge readers to take seriously the notion that smartphones are *persuasive technologies* (Fogg). If you are of the conviction that persuasion is limited to human agents alone, then I humbly request that you suspend your disbelief for the next two hundred or so pages (a big ask, I know) while I work to demonstrate how and why smartphones enact and enable persuasion.

Although this statement might appear obvious, it's important to remember that "persuasion" implies a given direction or aim. That means that smartphones are not, cannot be, neutral; no technology is. As Samuel Florman writes, "a basic human impulse precedes and underlies each technological development" (61). (The fact that the major developments that led to the smartphone emerged during wartime and accelerated during the post-industrial and capitalist eras should say something about the intentions behind these devices.) By uncovering the logics and values that have been written into the very code of these devices, we can also uncover something about how they operate, and how they encourage *us* to operate—the logics and values they instill and perpetuate, as it were. That is my task in this project.

- S.M.L.

Introduction
Theory, Method, and Concepts

> *[T]he very act of using the kinds of machines, techniques, and systems available to us generates patterns of activities and expectations that soon become 'second nature.' We do indeed 'use' telephones, automobiles, electric lights, and computers in the conventional sense of picking them up and putting them down. But our world soon becomes one in which telephony, automobility, electric lighting, and computing are forms of life in the most powerful sense: life would scarcely be thinkable without them.*
>
> – Langdon Winner, "Technologies as Forms of Life," in *Ethics and Emerging Technologies*, 55.

1.1 General Overview

Questions concerning the latest (communications) technologies have pervaded history, occupying the minds of thinkers from Plato to Bacon to Heidegger to modern day media theorists and posthumanists. Regardless of the era, there have always been people extolling the speed, reach, reliability, verifiability, and other positive qualities of successive communications technologies. There have also always been people decrying the loss of wisdom, community, or other societal virtues that seem to fall by the wayside or get trampled underfoot in the rush to the Next Big Thing.[1] And, throughout history, there has always come a point where, as Langdon Winner's epigraph above conveys, technologies that were once outlandish and unthinkable begin to simply blend into the background of everyday life. This is not to say that critics and proponents fully stop debating the merits or ills of a given technology, but rather that it has been adopted or domesticated (Haddon) into the general landscape; in the words of Richard Ling, it becomes "taken for granted."

[1] As Douglas Rushkoff notes: "We tend to think of the assault on our temporal sensibilities as a recent phenomenon, something that happened since the advent of computers and cell phones—or at least since the punch clock and shift workers. But as technology and culture theorists have reminded us at each step of the way, all this started much, much earlier, and digiphrenia is just the latest stage in a very long and lamented progression. At each of these stages, what it meant to be a human being changed along with however it was—or through whatever it was—we related to time." (76)

The smartphone is no exception to this process of debate, resistance, acceptance, and integration. Barely two decades after its widespread introduction into society,[2] the smartphone has attained the most rapid adoption of any communications technology to date: sixty percent of people globally own smartphones, seventy-two percent in Canada, and seventy-seven percent in the United States (Turner n.p.). However, there is still growing debate over the relative merits or ills (whether psychological, social, economic, or political) associated with this communication device. Regardless of the side of the debate one falls on, what is abundantly clear is that the smartphone has strong effects on the ways people relate to the world around them, their peers, and themselves as individuals. Data on the smartphone's impact on everything from self-esteem and motivation to physical health to personal relationships have emerged from a variety of fields, both qualitative and quantitative. The findings of psychologists like Jean Twenge and Daria Kuss, sociologists such as Sherry Turkle or Nicole Aschoff, communications theorists from James E. Katz to Rasmus Helles to Maria Bakardjieva, and cultural critics Byung-Chul Han, Nicholas Carr, Ronald Deibert, and Adam Greenfield (to name just a few of the foremost scholars) all point to rapid and radical changes in society emerging in tandem with the rise of smartphones. While there are many factors beyond the popularity of smartphones that contribute to these changes, of course, the role of these devices cannot be understated or underestimated.

We are at the point where the idea of living without smartphones is almost unthinkable for many people across the world. Of course, again recalling Winner, this is true of all past media and technologies—life is unthinkable without them, until they are surpassed by an even more powerful and comprehensive technology. But I am going to argue here, following Lev Manovich, that there is a qualitative difference in the computing

[2] The earliest smartphone was released by IBM in 1994 (the IBM Simon); RIM released its first smartphone, the BlackBerry 5810, in 2002. While the BlackBerry had significant uptake, it was not until the arrival of the first iPhone in 2007 that the smartphone as we know it really began to intertwine with the fabric of society. As Thomas L. Friedman writes: "As step changes in technology go… the platform birthed around the year 2007 surely constituted one of the greatest leaps forward in history. It suffused a new set of capabilities to connect, collaborate, and create throughout every aspect of life, commerce, and government" (31).

technologies that emerged in the latter half of the twentieth century. Considering the impact of past media, Manovich states:

> the introduction of the printing press affected only one stage of cultural communication—the distribution of media. Similarly, the introduction of photography affected only one type of cultural communication—still images. In contrast, the computer media revolution affects all stages of communication, including acquisition, manipulation, storage and distribution; it also affects all types of media—texts, still images, moving images, sound, and spatial constructions. (19)

In other words: computer media changed *everything*. One might then ask what the smartphone *in particular* contributes to this already-colossal shift in cultural practices, logics, objects, sites, and what Manovich calls "cultural forms." The answer, I believe, is not what it contributes technologically—as noted above, all of its components are already also situated elsewhere, on mainframe computers—but rather what it contributes to, and how it operates in, everyday life. That is to say, the smartphone's greatest effect comes not from its technological computing capabilities (although this was definitely a huge leap at the time of its emergence in the mid-2000s), but from its role in users' lives and in social life more broadly. Certainly, these roles are enabled by the ever more frequent updates in digital computational capabilities, but there is something special about the way these capabilities coalesce in the smartphone as a handheld computing device.

In contribution to this growing body of discussion and critique, then, my dissertation examines how smartphones function *rhetorically* to affect their users—in other words, how they function as persuasive, persuading technologies. I use rhetorical theory and media theory to investigate how the smartphone rhetorically constructs subjects in a way that departs markedly from past communications technologies, even from the computers from which it has so recently evolved. I'm seeking to answer questions such as: *How do smartphones captivate and engage people? How do they encourage the formation of a user-device relationship that can supersede relationships between individuals and their environment, their peers, and even their very selves?* And, on a more critical theoretical

level: *how do these relationships reproduce the ideologies of late capitalist society and appear to promote freedom and individuality even as they reduce these potentials for the average user?* Determining these answers requires first identifying the affordances or qualities that enable the smartphone to influence and persuade individuals *as* individuals.[3] It also, of course, requires a broader consideration of the role that smartphones play in the broader processes and systems of society.

1.2 Defamiliarizing the Smartphone

When conducting an analysis with a central "object-to-think-with" (Papert), it is necessary to first distance oneself from the object, to hold it (quite literally, in this case) at an arm's length. Although smartphones are ubiquitous in North American culture today, in the future there may be a different prevailing technology or tool, and so I want to offer a short explanation of what I'm referring to when I use the term "smartphone." Interestingly, the term is not as straightforward as it seems, with numerous definitions floating around the Internet:

> A smartphone is a mobile or cellular phone that runs off a mobile operating system (OS) and functions like a mini computer. Smartphones also function as portable media players, digital cameras, video cameras and GPS navigational devices. The operating system equips the device with advanced computing capabilities, runs applications and enables the device to perform… basic features. (Lenovo n.p.)

> When the word 'smart' is used within terms such as smartphone, smart cities or smart homes, it comes from the acronym S.M.A.R.T., which initially stood for 'Self-monitoring, Analysis and Reporting Technologies', in reference to a device that can learn from the way we use it…

[3] "Affordances" here refers both to "the ways that technologies invite, as well as constrain, the possibilities of certain forms of interactions while acknowledging their socially constructed nature" (Madianou 61) and to "the physical properties of objects that enable people perceiving or using those objects to function in particular ways" (Sellen and Harper 17).

> [A definition would be] *camera-diary-navigator-music-entertainment-information-phone*, but the list would certainly not stop there… (FutureLearn n.p.)
>
> Most Versatile Device Ever… A combination cellphone and handheld computer that created the greatest tech revolution since the Internet. (PCMag n.p.)
>
> Wireless phones with advanced data features and often keyboards… What makes the phone 'smart' is its ability to manage and transmit data in addition to voice calls. (Cellular Telephone Industries Association qtd. in Hamblen n.p.)

Key features of smartphones thus include mobility and the ability to "manage and transmit data" (Hamblen n.p.) through a "mobile operating system (OS) [that] supports the smartphone and provides the device with advanced computing capacities" (Lenovo n.p.); they are, as PCMag notes, a handheld computer crossed with a cellphone that affords the functionality of both tools (computer and telephone) in one palm-sized device. Although the locative, connective, and information-based technologies that comprise the smartphone as we know it have been around for many decades, it is only within the past twenty or so years that they converged into the convenient, pocket-sized device so often taken for granted today. Furthermore, in addition to being a physical point of convergence of various communications technologies, smartphones characterize the shift to mobile computing that has allowed digital communications technology to become essentially ubiquitous today—a phenomenon referred to as the "Internet of Things."[4]

One interesting omission in the definitions above: none mention touch screens as being crucial to the definition of "smartphone." And yet, touch screens have become ubiquitous in smartphones, to the point where a Google search for "non-touch screen smartphone" yields results only for "dumb phones" and "flip phones" (essentially equating the lack of touch screen with a lack of "smart" power). As I will discuss later, considering

[4] See Vincent Mosco's *Becoming Digital: Toward a Post-Internet Society*, where he introduces the "Next Internet" comprised by the three pillars of cloud computing, big data analytics, and the Internet of Things.

that smartphones are media "windows" (Manovich, Verhoeff and Cooley) that permit users to accomplish a range of tasks, the emphasis on the amount or size of available screen makes sense.

One further point of note here is that, while there are a number of current operating systems for smartphones, the two most common are Apple's iOS and Google's Android (an overarching category used by numerous smartphone manufacturers, including Samsung, Sony, and Nokia). Apple's iOS will form the basis of many of my anecdotes and analyses, for a number of reasons. As of 2023, fifty-eight percent of Americans used iOS, while forty-two percent preferred Android (although global statistics are greatly in favour of Android, at seventy percent). Additionally, according to online data, younger users in North America are more likely to choose iPhone (Howarth n.p.). I also believe that Apple has done the most to integrate users' experience across their product line—linking iPhone, MacBook, Apple Watch, and iPad—in a way that strongly exemplifies the critiques I will posit below. Lastly, I myself have an iPhone, and thus have far more data and experience with it to draw from.

1.3 Rhetorical Foundations

> *[O]n one hand, media give visibility to already existent rhetoric discourses (such as political ones) and, on the other hand, they integrate, appropriate and assimilate rhetoric in their own activity and discursive practice.*
>
> – Samuel Mateus, *Media Rhetoric: How Advertising and Digital Media Influence Us,* 4.

> *When humans are no longer the alpha and omega of rhetoric, the task in the nonhuman turn becomes describing how capacities for rhetoric emerge through the composition of objects.*
>
> – Alex Reid, *Rhetorics of the Digital Nonhumanities*, 4.

1.3.1 Bridging Traditions

In his book *Media Rhetoric,* Samuel Mateus offers three main interpretations of the titular term: "rhetoric *in* media," "rhetoric *through* media," and "rhetoric *within* media" (4). The first interpretation refers to "the persuasive verbal, sonic and visual mechanisms contained in discourses that are given visibility through media" (4). This approach is concerned with "rhetorical performances that are disseminated through media," such as a broadcasted political address (4). The second, which suggests that media themselves can be "studied as agents of rhetorical discourse," calls for an examination of "media and its use of rhetoric starting from the notion that media practices are, in themselves, a form of persuasive, discursive activity" (4). In this perspective, "researchers try to identify, isolate and classify the specific elements of media discourse that consubstantiate its rhetorical dimension" (5). The final sense of media rhetoric refers to the "persuasive potential of media," a newer and less-developed angle focused on the "reformation of Aristotle's rhetoric triangle to include media: now speaker, media, message and audience" (5).[5] This view contends that "the modern functioning of persuasive discourse cannot be separated from modern mass media," and that contemporary rhetoric "influences and is influenced by the media concerning the profound modifications media introduced to persuasive communication" (5). Taking up the second interpretative approach—rhetoric *through* media—this project considers how "media themselves can be studied as agents of rhetorical discourse" (5). This notion of media as agents, however, is one that is often rejected or viewed with skepticism, especially in a human-centred conception of rhetoric that focuses on traditional divisions of speaker, text, and audience. So, how can non-sentient objects be active rhetorical agents?

There are many ways to answer this question. The first, and one that I especially like, is Jay Bolter and Richard Grusin's assertion that "media technologies constitute networks or

[5] As Mateus elaborates: "The inclusion of media in the rhetoric equation does not mean that persuasion is now conducted in media or through media—as in the first two senses of media rhetoric. Instead, media rhetoric, in a third acceptation, points to the fact that media completely changed the traditional rhetorical canons by maximizing potential audiences and by imposing a series of constraints on the rhetorical craft" (5).

hybrids" that consist not only of hardware and software, but also of the "sum of the uses to which the given technology is put" (19). This therefore means that "we can say that media technologies are agents in our culture without falling into the trap of technological determinism" because "new digital media are not external agents that come to disrupt an unsuspecting culture" but rather "emerge from within cultural contexts [and] refashion other media, which are embedded in the same or similar contexts" (19). Similarly, Miles Coleman writes: "Machinic rhetoric exists where the agency of people ends, and the agency of machines emerges. It is a framework contributing to a growing case for the persuasiveness of machines, wherein machines are not merely tools for human rhetors to use, but are in fact persuasive themselves, carrying their own ethē as rhetorical agents" (347). Thus, while the smartphone does not, of course, exhibit agency in the sense of "the capacity of individuals to act independently and to make their own free choices" (Brekke 518), insofar as it is designed to be persuasive and engaging to users, it does actively participate in shaping people's lives to a lesser or greater extent.

To situate smartphones as agents using a different aspect of the rhetorical tradition, I want to touch on the "return to things" noted by Scot Barnett and Casey Boyle in their 2016 book *Rhetoric in Everyday Things.* In particular, I would like to invoke John Muckelbauer's work on heliotropic rhetoric, in which he explores the potential for everyday persuasion beyond direct linguistic means (i.e., beyond the Aristotelian model for argumentation). Once we begin looking beyond explicit modes of persuasion in our everyday lives, Muckelbauer says, "it quickly becomes apparent that people are frequently persuaded by things that most of us would not readily call arguments (and that certainly are not primarily linguistic)" (36). He notes that images, sounds, and physical structures can and do exert persuasive force, giving the example of a speedbump, which persuades drivers to slow down (and enacts concrete consequences for failing to heed this "suggestion"). A good way to think about this in terms of the smartphone: phone designers are not delivering a concrete or literal message to users through the devices they design; rather, the smartphone *itself* is the active agent in the user-device relationship, every bit as much as the user.

Muckelbauer's broad conclusion is that, although "everyday physical structures may not exactly be arguments (and they are certainly not primarily linguistic—though they are surely integrated with language), but they are undoubtedly persuasive," and thus "it is important to consider these types of objects as crucial components of rhetoric" (36). His discussion of the extra-lingual modes of persuasion at work in everyday life highlights a major issue with taking only human-to-human rhetoric as legitimate: this narrow focus fails to capture the rich networks of suasion taking place all around us, all the time. Following Muckelbauer, I believe it is crucial that scholars of rhetoric and communication take seriously the notion that objects can exert suasive forces just as humans do, albeit in very different ways.

At the same time, it is important to clarify that, despite my interest in Muckelbauer's heliotropic rhetoric, my research is largely human- (or user-) centred. I emphasize the user because considering the smartphone solely as a "thing" (which operates outside of human awareness and intention) overwrites the very *human* intentions beneath the device's design and functioning. That is to say, unlike natural phenomena such as rocks, trees, and dragonflies (all of which have been considered rhetorical agents, as in the work of Jane Bennett, Alana Hatley, and Marilyn Cooper), every single aspect of the smartphone has been carefully designed and constructed to make specific types of suasive appeals to users. They are the epitome of persuasive technologies, calculated to the minutiae. For this reason—the inseparability of smartphones and their human designers—I will not work here with object-oriented approaches, as they decline to privilege human actors over non-human and even non-sentient agents.[6] Instead, I will employ two complementary approaches from digital rhetoric that account for both human and technological agency.[7]

[6] Though for a fascinating examination of the nineteenth-century stereoscope (a "philosophical toy" [125] that made use of early visual technology) from this perspective, see Kristie Fleckenstein.

[7] For an adjacent approach that addresses similar questions of agency in a slightly different way, see Jonathan Adams' work on "infrastructural rhetoric," which he defines as "the ability to discover, understand, and manipulate the elements present in any given infrastructure to persuasive ends" (48).

1.3.2 A Dual Approach: Captocedural Rhetoric

From this rhetorical perspective, my task in this dissertation is thus, in Muckelbauer's words, "to affect a turning whereby the rhetorical tropology of things—both human and nonhuman—becomes visible" (40). To accomplish this task, I use two approaches Mateus identifies as constitutive of the empirical (as opposed to theoretical) side of digital rhetoric[8]: captology and procedural rhetoric. Rather than studying persuasion *within* digital environments (such as on social media sites or news apps), these approaches consider how digital technologies themselves are persuasive by "measur[ing] and classif[ying] the persuasive processes involved in computational systems" (12). This focus makes them highly useful for looking beyond onscreen content to determine the underlying mechanisms by which technologies exert persuasive force (although the methods define "underlying mechanism" in very different ways, as we shall see). In Mateus' ensuing chapters, however, there are no discussions of procedural rhetoric beyond analyses of video games; indeed, captology falls entirely by the wayside after his introductory chapter. Because of the short shrift these empirical approaches receive in Mateus' book and elsewhere (given that I can find no other procedural rhetorical or captological analyses of smartphones as of April 2024), it is my goal here to both reinvigorate and merge these two approaches in my analysis of the smartphone. I will first define the two approaches and then highlight the benefits of merging them for the purposes of my project.

Captology is a partial acronym of "Computers as Persuasive Technology." The concept comes from social scientist B.J. Fogg's studies on human-computer interaction and persuasion. It refers to "the design, research, and analysis of interactive computing products created for the purpose of changing people's attitudes or behaviors" and conceives of computers themselves as persuasive agents (5). Captology "explores the intersection

[8] Mateus defines digital rhetoric as rhetoric "concerned with the study of persuasion in digital environments including computers, videogames, websites and discourse on new media" (12). There are numerous definitions of digital rhetoric that differ and exceed that given by Mateus (by Richard A. Lanham, Elizabeth Losh, James Zappen, Douglas Eyman, and others), but what I am particularly interested in here are these two empirical means of studying persuasion in online environments.

between persuasion in general (influence, motivation, behaviour change, etc.) and computing technology including design, research, and program analysis of interactive computing products" (13). Because captology focuses specifically on intentions rather than outcomes, it is a great starting point for analyzing how the smartphone is *designed* to influence users.

Since the publication of Fogg's book in 2002, such design tactics and strategies have become much more prevalent and much more openly discussed. Concepts such as "deceptive patterns,"[9] (Brignull), "nudge theory" (Thaler and Sunstein), and "Aesthetic Design Power" (Kender and Frauenberger) are just a few examples of how captology has been taken up in digital design practices. Aesthetic Design Power is especially similar in that it focuses on design features; however, it accounts for *both* "the intended and unintended influence the form of a designed artefact has, consciously and unconsciously, on users, to behave in a certain way in their interactions with the artefact and beyond" (367), which is an expansion from Fogg's original emphasis on the "*planned persuasive effects* of computer technologies" (17). Because I too want to examine the wider, sometimes unplanned effects that result from persuasive design, I turn to a related but distinct concept: procedural rhetoric.

Ian Bogost defines procedural rhetoric as "the art of persuasion through rule-based representations and interactions rather than the spoken word, writing, images, or moving pictures" (ix). It uses symbol manipulation, "the construction and interpretation of a symbolic system that governs human thought or action," to shape the way users find and construct meaning from their engagement with processes or procedures, which include everything from computer programming to government bureaucracies (5). For Bogost, procedures are important because they "found the logics that structure behaviour" (7); to examine procedures is to examine the values, beliefs, goals, and assumptions that undergird them. As Bogost notes, "asking how does this work?" in the case of "cultural, social, and

[9] Originally termed "dark patterns."

historical systems" requires a dismantling of these systems in order to "see what logics motivate their human actors" (8). It is important to highlight that Bogost, a games scholar, is specifically interested in how software can be ideological when it enforces structures that users can't see or change, similar to the ideological stratifications that exist in the legal system or in class systems.[10] This is something that Manovich and Janet Murray previously wrote about, and which Wendy Chun and Friedrich Kittler have touched on in their work, so it is by no means a new idea.[11] However, Bogost's formulation of the concept is particularly fitting in a society in which so many processes and procedures are now specifically (and computationally) coded and routed in particular ways that impact the overall functioning of that society.

Despite their differences, both approaches are useful for analyzing the rhetoricity of the smartphone. Furthermore, each helps to fill in the gaps—ideological and mechanistic—left by the other. Fogg's interest is in how computing systems can be made more persuasive on an instinctual level by circumventing traditional dialectical rhetoric; this interest complements Bogost's attempts to locate persuasive force within procedures. Bogost is careful to emphasize that captology differs from procedural rhetoric in that the former "is not fundamentally concerned with altering the user's fundamental conception of how real-world processes work. Rather, it is primarily intended to craft new technological constraints that impose conceptual or behavioral change in users" (60). That is, for Bogost captology is

[10] To provide an example of what Bogost was thinking about in *Persuasive Games*: a non-binary individual is picking an avatar to play in a video game, but everything is heavily stereotyped by gender, which forces a choice between just two alternatives that legitimates and circumscribes the paucity of options.

[11] Similarly, Nelly Oudshoorn and Trevor Pinch describe the work of Madeleine Akrich and Bruno Latour, who use the word "script" when "theorizing relationships between users and technology… The concept of script tries to capture how technological objects enable or constrain human relations as well as relationships between people and things. Comparing technologies to film, Akrich (1992: 208) suggested that 'like a film script, technical objects define a framework of action together with the actors and the space in which they are supposed to act.' To explain how scripts of technological objects emerge, she drew attention to the design of technologies. Akrich suggested that in the design phase technologists anticipate the interests, skills, motives, and behavior of future users. Subsequently, these representations of users become materialized into the design of the new product. As a result, technologies contain a script (or scenario): they attribute and delegate specific competencies, actions, and responsibilities to users and technological artifacts. Technological objects may thus create new 'geographies of responsibilities' or transform or reinforce existing ones" (9).

not explicitly rhetorical because it does not focus on persuasion through "dialectical engagement," but rather on (in Fogg's words) "chang[ing] attitudes or behaviors or both" (15). However, while Bogost gives more agency to the user or participant in the construction of meaning, to focus *only* on these conscious or intentional levels of persuasion would be to overlook the equally important instances of persuasion that occur subconsciously.

Thus, in order to understand how the smartphone is persuasive on both a micro and macro level, and conscious and unconscious level, in this project I am uniting the two approaches into one that I call a **captocedural rhetorical approach.** Bringing together Fogg's captology and Bogost's procedural rhetoric visibilizes the "rhetorical tropology" (Muckelbauer) of the smartphone because, together, these approaches account for both the intentions of designers and the effects of the end product in the hands of users—and in society more broadly. That is to say, both centre the intentional persuasive aspects "baked in" to the smartphone that emerge as a result of the very *human* motives, values, and ideals that manifest in technological objects, structures, or systems. And yet, both also leave space for the question of user experience, too, and how arguments are structured through experiencing smartphone-facilitated procedures and processes. In studying both the design-side of things (i.e., the "planned persuasive effects" that result from designers' specific decisions during the design process [Fogg 17]) and the end-user side (i.e., achieved by analyzing studies, a variety of primary and secondary texts, and anecdotes)—both "ends" of the seesaw of which the smartphone is the fulcrum—I aim to demonstrate how physical and affective relationships can form between users and their devices, and how these devices shape users' relationships with the rest of the world.

Working with this dual approach more effectively takes into account the various layerings of situations, intentions, and addresses occurring hundreds of times every day through smartphones (and all other digital communications technologies). In this way, I hope to avoid some of the pitfalls of a narrower method of analysis. For example, focusing only on surface-level elements (emojis, memes, social media posts) can sometimes foreclose a broader critical analysis of the implications and consequences that emerge and accumulate

from the actions and interactions that take place through smartphones. At the same time, focusing only on the big picture (for example, the assertion that "capitalism is taking away people's freedom and enslaving them through the supposed freedom given through digital devices") prevents us from understanding how these largescale systems are perpetuated on an everyday basis through the sum of an infinite number of actions and interactions. A comprehensive examination of this issue thus requires connecting detail-oriented, captological analyses to broader social themes and trends.

1.4 The Framework: Constancy, Customizability, and Consequentiality

With all of that said, I will now propose three aspects that I have identified as being unique to the smartphone's rhetorical address. By "address" I mean the specific way in which the smartphone communicates to users, or how it captures (and holds) users' attention. We can think here of Althusser's *interpellation*—how does a user know (or suspect) that it is *their* phone ringing? By focusing on the address, I am examining how smartphones appeal to users in both the sense of a rhetorical *appeal* and being *appealing* to engage with. Going back to the Latin *appellare*—"to address or call upon"—we can see the importance of the smartphone's agential power in this research question. As I will argue, this specific address is unlike that of any previous communications technology. So, what is it that makes the smartphone so singular, in this sense?

The smartphone's address is so persuasive and pervasive because it is **constant**, it is **customizable**, and it alters the perceived **consequentiality** of the actions and interactions conducted through and with these devices. By **constant**, I mean both the way that the smartphone is literally designed to be, in Turkle's words, "always on/aways on us" and to its ubiquitous presence in the social landscape. **Customizable** refers to the many ways in which the smartphone's address can be personalized to users as individuals, making it much more persuasive of a hail (to use Althusser's term) than the de-personalized mass communications

technologies of the past. Lastly, the point of altered **consequentiality** describes how the smartphone distorts the sense of *consequence* (in other words, the sense of *importance*) attached to the actions, interactions, and procedures it facilitates. It can thus distort the perceived importance, or even the actual experienced impact, of many different scenarios.[12]

The ordering of the three elements, while originally pure coincidence, has throughout this writing process revealed itself to be significant. The constancy of the smartphone's address is, as I will explore in Chapter 2, a necessary precondition for customizability and altered consequentiality to take hold. That is to say, if the smartphone's presence was *not* constant, the customized and consequentiality-altering nature of its address would not have nearly as much rhetorical efficacy or persuasive power. Similarly, if the constant presence of the smartphone was *not* customized and customizable, it wouldn't be nearly as consequential. And so, as the reader progresses through the subsequent chapters, they will see how each element is both enabled and enhanced by the previous.

The three elements of my framework share similarities with past frameworks proposed by Lev Manovich, danah boyd, Janet Murray, and Andrew Feenberg for conceptualizing the Internet or computers, in the sense that I am trying to pinpoint the specific qualities of the technology under consideration. However, because my framework bridges the physical, technological, and social affordances of the smartphone in this captocedural rhetorical approach, my project provides new insight into the question concerning smartphones as a communications technology. Furthermore, although many scholars have written on digital rhetoric and its applications (Richard A. Lanham, Elizabeth Losh, James Zappen, Barbara Warnick, and Douglas Eyman, to name just a few), the smartphone-specific rhetorical analysis I am proposing has not yet been conducted in any fulsome way. I hope to spur a broader consideration of the rhetoricity of smartphones as

[12] As I will show in my topical division of the chapter dealing with consequentiality, this distortion can either be an inflation or a reduction of consequence.

agents of persuasion by examining each of the three elements of the smartphone's address in greater detail from both an individual and societal level.

1.5 Defining the User

In her 2023 book *Generations*, Twenge writes that technology, *not* major world events, is the number one cause of differences between generations. It is fitting, then, that this dissertation focuses on the populations born right alongside two massive technological developments: the Internet in the 1990s and the smartphone in the 2000s.[13] These populations are Millennials (Gen Y) and Zoomers[14] (Gen Z), particularly those in North America. Likely because these individuals have grown up in tandem with the rise of mobile digital communications technologies, they have the highest rates of smartphone adoption: as of 2024, ninety-four percent of Millennials and ninety-eight percent of Zoomers own smartphones (GilPress). At times I may discuss particular groups or demographics that fall outside of this main scope, but for the most part, my analysis focuses on Canadians and Americans born from 1980–2012. However, despite this necessary limitation in scope, my project engages with concepts and conclusions that apply to users of all ages. As such, I envision a broad readership for this work—not only interested members of the noted demographics, but instructors, parents, policymakers, mental healthcare workers, and *anyone* who wants to learn more about how and why smartphones are so persuasive to users.

It is important to note here that, while I employ the term generally, I will often be speaking of "the user" in the sense of the *ideal* or *idealized* smartphone user—that is, the user as envisioned by the designer. This is because I want to show how the rhetorical

[13] "'Every once in a while, a revolutionary product comes along that changes everything,' said Apple CEO Steve Jobs on January 9, 2007. 'Today, Apple is going to reinvent the phone.' It did: Six months later, Apple introduced the first iPhone, and the world has never been the same" (Twenge 345).
[14] Twenge notes that this term comes from the amount of time this generation was forced to spend on video-chat platforms during and after the COVID-19 pandemic (345); her term for this generation is "iGen," as discussed in her book by that title.

address of the smartphone operates within intended (ideal) usage patterns and contexts: the ones that designers are simultaneously counting on and creating. With this set limitation, I will not explore instances of "creative misuse" (Farman, "Creative"), wherein users put smartphones to unusual or unexpected uses, either out of necessity or as a form of critique (this could be an entire dissertation of its own). The perspectives and voices of those who are left out of this idealized version will be discussed as well, of course, because the utopian vision of an "ideal user" is one that overwrites and disempowers many people, and that deserves serious attention. The "ideal user," although appearing to be unmarked by the designers that assume its generic nature, is always constructed through various choices that privilege certain features, traits, positionalities, and perspectives.

Daniela Rosner highlights these conflicting tenets of design when she cites both *individualism* and *universalism* as dimensions of design practice. She writes that designers "tend to conceive of their target users as an aggregation of individuals rather than as a web of relationships" (individualism) but at the same time will "imagine things about their target users" in order to "help them generalize their ideas" (universalism) (12, 14). In other words, designers make assumptions about the individuals they target in order to design mass products while simultaneously disregarding the extra-individual factors that would impact how a user might relate to and engage with a given product. Therefore, in my exploration of ideal smartphone users, I can also explore how and why certain individuals are positioned *as* ideal, and by extension gain insight into a) why they are positioned as the ideal and b) who is left out, and how. The captocedural rhetorical approach I use for my analysis considers ideal or typical patterns of use on both an individual and broader level, which covers both how design logics operate and how wider societal logics structure and inform these design logics (which, in turn, impact future design logics).

1.6 Defining the Subject

Considering that the title of this project contains the term "subjectivity," it is necessary to define what I mean by a "subject." This is a concept that will occupy a central, although perhaps spectral, position in this research, as it does in life. Subjectivity is, by definition, always present—I am always experiencing the world in a particular way, although I am not always aware of the particularities—but not always front and centre in an individual's mind during experiences. As Nick Mansfield explains in *Subjectivity: Theories of the Self from Freud to Haraway*, "subjectivity" refers to:

> an abstract or general principle that defies our separation into distinct selves and that encourages us to imagine that, or simply helps us to understand why, our interior lives inevitably seem to involve other people, either as objects of need, desire and interest or as necessary sharers of common experience. In this way, the subject is always linked to something outside of it—an idea or principle or the society of other subjects. It is this linkage that the word 'subject' insists upon… The word subject, therefore, proposes that the self is not a separate and isolated entity, but one that operates at the intersection of general truths and shared principles. (3)

However, where these "general truths and shared principles" intersect is another matter entirely and differs depending on the field and perspective. Katia Maheirie notes that "[n]o other contemporary theme has mobilized researchers from such a broad range of disciplines and fields, all concerned with a discussion that runs from the ontological aspects to the politics of the issue" (143). This is because of conflicting perspectives about the nature of the aforementioned "truths and principles" regarding "whether they determine or are determined by us as individuals—in short, the range of their power" (Mansfield 3). For this reason, there are several definitions within this definition of "subject," including the subject of grammar, the politico-legal subject, the philosophical subject, and the subject as a human person. This project will look primarily at the philosophical subject, an idea that has been central within the continental philosophical tradition in which I am writing.

The philosophical conception of a "subject" was introduced in German idealism by Kant and Hegel, who sought to delineate the "unity of the subject" and determine how it forms from the perception of the world around it. These philosophers wrote in response to the work of empiricists like Hume who held that the self was nothing more than fleeting bursts of sense perceptions. This German idealist notion of a unified subject was complicated by the work of Marx and Freud (particularly Freud's "discovery" of the divided unconscious), whose ideas were then taken up by many twentieth century thinkers including Althusser, Heidegger, Foucault, and Butler. Amongst these later thinkers, Mansfield identifies two main schools of thought in studying the subject.[15] The first, in the Freudian tradition, "attempts to explain the truth of the subject, how our interior life is structured, how it has been formed, and how it can explain both uniquely individual traits (for example, nervous habits and sexual tastes) and vastly public ones (for example, the politics of gender and culture)" (Mansfield 9). This approach "rests on the assumption, found nearly everywhere in Western thought in the modern era, that its object of analysis is quantifiable and knowable—in short, a real thing, with a fixed structure, operating in knowable and predictable patterns" (9). Conversely, the "anti-subjective theory of the subject" (drawing from Nietzschean and, later, Foucauldian thought) purports that "subjectivity is not a really existing thing, but has been invented by dominant systems of social organization in order to control and manage us" (10). In this figuration, "'subjectivity' is not the free and spontaneous expression of our interior truth. It is the way we are led to think about ourselves, so we will police and present ourselves in the correct way, as not insane, criminal, undisciplined, unkempt, perverse or unpredictable" (10).

In this project, I assume an anti-subjective stance in my examination of how the subject is (re)shaped by the smartphone; while a structural Freudian analysis would certainly prove fruitful, I am more interested in how subjectivity has been constructed and perpetuated "by dominant systems of social organization in order to control and manage us" (10).

[15] Peter Zima, in *Identity and Subjectivity*, identifies many more—including his own "dialogic" approach—but for the sake of brevity I will stick to the simpler distinctions set out by Mansfield.

Looking at contemporary forms of social organization and (technological) control, some scholars such as Antoinette Rouvroy even posit that digital media and computational phenomena (such as "algorithmic governmentality") are resulting in *de*-subjectification, "in which individuals are fragmented and unable to maintain singular, coherent identities and social groups are only formed based on statistical abstractions" (Packer et. al 26). Although I will not pursue this angle of de-subjectification here, it is important to mark this turn in theories of subjectivity, which points to a shift in the dominant systems that control and manage individuals (or, rather, "dividuals," to use Deleuze's term[16]).

Although Mansfield highlights the differences between the two schools of thought he discusses, he also emphasizes the commonalities within them: "their separation from what we consider to be the commonsense model of the subject that we have inherited from the Enlightenment: the idea that we are possessed of a free and autonomous individuality that is unique to us, and that develops as part of our spontaneous encounter with the world" (11). Mansfield states elsewhere another key similarity: both "see the subject as a construct [because] the subject does not come into the world with all its nature and scope encapsulated within itself in embryonic form. *Subjectivity is made by the relationships that form the human context*" (51, emphasis added). This point is of particular importance. The fact that subjectivity is shaped through relationships means that whomever or *whatever* people have the strongest relationships with will have the biggest impact on their subjectivity and self-development. When we consider that smartphones not only mediate many users' relationships to other people but in fact have become the object (or, rather, subject) of relationships as well, understanding the ways in which they address and appeal to users becomes crucial.

As such, I add to my existing list of key questions: *how has the introduction of smartphones into "the relationships that form the human context" (Mansfield 51) impacted*

[16] "We no longer find ourselves dealing with the mass/individual pair. Individuals have become '*dividuals'* and masses, samples, data, markets, or *'banks'*" (Deleuze 5).

people's subjectivity? I am interested in how phones persuade users—both on an individual and collective level—by "turning" them towards specific actions, behaviours, and thought patterns and away from others. This also becomes, on a broader scale that integrates a more critical theoretical perspective, an interest in how the smartphone both exemplifies and enables capitalist society in its continual evolution.

1.7 The Question of Smartphone Addiction

The eye-catching opening line of a University of Toronto Mississauga research update from December 2023 reads: "Are you addicted to your smartphone? So is most of the world, it seems, based on new research from the University of Toronto" (Raza).[17] The idea of smartphone "addiction" is widespread, yet controversial. The clinical definition of an addiction requires that there is a *substance* causing a chemical reaction to occur in the body. The DSM-5 (*Diagnostic and Statistical Manual of Mental Disorders*) recognizes only one so-called "behavioural addiction"—gambling—and yet numerous others (to food, sex, video games, and smartphones) are popping up in mental health resources and public discourses. According to Gabriel Rubio, a psychiatrist and researcher at the Complutense University of Madrid, "excessive phone use might not change our brains' structure like alcoholism does, but it does change how our brains *function*. Namely, phones affect how our brains deal with internal emotions (i.e., boredom, loneliness) and external stimuli (i.e., seeing someone else pull out their phone)" (qtd. in Bajaj n.p.). That is to say, smartphone usage (and all addictive behaviours) taps into the brain's "reward circuit," thus creating effects similar to that of actual addiction—including obsessive patterns of use[18] and withdrawal symptoms.

Tine Eide et al. note three main views on the issue of smartphone addiction:

> (1) one can be addicted to the medium itself; (2) one could be addicted to the medium, because it grants access to different types

[17] For the actual study, see Jay Olson et al.
[18] Noted by Mark Griffiths as the following six components: salience, mood modification, tolerance, withdrawal symptoms, conflict, and relapse.

> of content that is accessible only through the medium; and (3) one is only addicted to the content the medium makes accessible and not to the medium itself. (2)

In this project, although I will not be examining the concept of smartphone addiction in particular, my analysis will tend to focus on (1) and (2); that is, I will examine (1) what the smartphone affords as a communications technology (medium) and (2) how it provides users access to content in an unprecedented manner that has proven to be far more effective in capturing and holding users' attention.[19] To speak to (3), in my opinion, it is not necessarily the content itself that is addictive—otherwise we would see much higher levels of computer addiction—but rather the fact that smartphone-generated content is made accessible and presented to users in a very particular way.

1.8 Against Solutionism

> *[E]very genuine dilemma is seen as a mere paradox . . . that could be untangled by judicious application of cold logic.*
>
> – Joseph Weizenbaum, *Computer Power and Human Reasons: From Judgment to Calculation*, 22.

With a project like this, the question of solutions—*what is to be done?*—is bound to come up sooner or later. I want to state from the outset that I am writing from a firm stance of philosophical pessimism.[20] To qualify this a little: philosophical pessimism is a perspective that rejects the notion of progress that undergirds post-Enlightenment, Western society, particularly as it is evident in scientific, social, political, and economic discourses. Pessimism does not (contrary to popular belief) believe the world is necessarily getting

[19] As Turkle notes in "Always-On/Always-On-You: The Tethered Self": "It is not exact to think of people as tethered to their devices. People are tethered to the gratifications offered by their online selves. These include the promise of affection, conversation, *a sense of new beginnings*" (125, emphasis added).
[20] The most extensive treatment of philosophical pessimism I have found to date is Joshua Foa Dienstag's *Pessimism and Ethic*, which is an excellent introduction to the concept.

worse—it just doesn't believe in the linear, upward trajectory that has been an integral part of Western civilization since the Enlightenment (Dienstag).[21] Philosophical pessimism also doesn't believe in neat, straightforward "solutions" to the ills of the world. Evgeny Morozov even sees the desire for problem-solving as falling into the trap of "solutionism": "the idea that given the right code, algorithms and robots, technology can solve all of mankind's problems, effectively making life frictionless" (qtd. In Tucker).[22] This faith in technology, of course, gives more power to the corporations that my work seeks to examine and critique; it also upholds the ways of "modern technological thinking" that Carolyn R. Miller says "close[s] conceptual system[s] to achieve certainty and efficiency" (234). Even invention—which Miller cites as a key aspect of an open conceptual system—is now being coopted by solution-focused technological thinking, which thrives on optimism and a desire to end ambiguity (which we see now in the ever-encroaching datafication of all spheres of life, from sleep patterns to traffic stops to medical breakthroughs).

Following this conviction, I am not writing with the end in mind of positing solutions to the issues I identify, and I hope this disclaimer explains my aversion to positing solutions for situations that I don't believe can necessarily be remedied. In fact, part of the problem I identify here is that it *is* so difficult to imagine an "otherwise" because of how smartphones have been so quickly and deeply integrated into modern life. Smartphones aren't going anywhere, unless it is to take a back seat to an even more powerful and pervasive communication technology like Elon Musk's "Neuralink."

Even in this "meantime," many of the "remedies" suggested—time-monitoring apps, "phone jails," digital detoxes, or even full digital abstinence—are not feasible for many people, nor are they sustainable long-term (for reasons I will discuss later). While the pitfalls

[21] For overview of the history of the idea of progress, see Robert Nisbett's book by that name.
[22] Though Theodor Adorno never called himself a philosophical pessimist as such, his essay on "Resignation" is a prime example of the active rejection of the urgent push for solutions in the face of complex crises. His concept of "pseudo-activity," which is "action that overdoes and aggravates itself for the same of its own *publicity*, without admitting to itself to what extent it serves as a substitute satisfaction, elevating itself to an end in itself" (290-291), aligns well with Morozov's view.

of the first three options might be more readily evident, the issues associated with digital abstinence (disconnection) are not as obvious. As Simone Natale and Emiliano Treré explain, the "emancipatory potential of disconnection as a form of critique and socio-political change is often deactivated and subsumed by the dynamics of digital capitalism under the innocuous facade of escape in connection to issues of authenticity, mindfulness and nostalgia" (628). Figuring "disconnection as a form of disengagement from digital technologies and systems… ultimately reduces its political meaning and outcomes, running the risk of turning disconnection from a reaction and critique to digital capitalism to a mere form of escapism" (627). This sentiment is exemplified by the notion of sleep itself as resistance, which suggests that the only means of truly escaping from the technocapitalist regime is through sleep. I find this conviction both demoralizing and, unfortunately, not even true, given the ways in which sleep is now datafied.[23] In essence, Natale and Treré argue that by disconnecting, whether through sleep or by rejecting smartphones entirely, users also lose access to potential means of taking action and end up forfeiting their (already limited) power.

Furthermore, as Leopoldina Fortunati explains, striking against today's digital technology is impossible, both because this technology is crucial for political organization and because it is dispersed. Unlike the textile machines the Luddites took issue with, smartphones and smart devices are *everywhere* (in keeping with Boyle et al.'s assertion that "digital rhetoric is everywhere at once and nowhere in particular" [252]). Boycotting certain sites, platforms, or devices or otherwise disconnecting in an organized manner is highly difficult due to the fact that solidarity in today's world is harder to achieve, maintain, and believe in without the digital connection on which so many users (especially in younger generations) have come to rely. The "imagined communities" (Anderson) across the digital sphere today might still be imagined (in that they encompass far more individuals than one

[23] For example, there are now numerous platforms based around recording and analyzing sleep, including Pokémon Sleep, Sleep Cycle, and sleep analytics on fitness trackers like the FitBit, Apple Watch, or Oura Ring. For more on the disruption of sleep caused by "24/7 capitalism," in particular, see Jonathan Crary.

might ever be able to meet in person), but they leave less and less to the imagination due to the fact that users are expected to have online profiles and presences that leave verifiable traces of their existence.[24]

1.9 Chapter Overview

I conclude this introduction (Chapter 1) with a quick overview of the following chapters and sections, in which I will explore the three elements of my framework using my captocedural rhetorical approach. Each piece of the framework—constancy, customizability, and altered consequentiality—is addressed in its own chapter. All chapters follow a similar layout, moving from a micro-level analysis of the smartphone's captological elements to a broader investigation of the way that these design elements give rise to "logics" or "values" that structure or shape wider processes in society.[25]

Chapter 2

The first aspect of the smartphone's rhetorical address—and a key way in which it differs from the addresses of past communications media—is that it is constant. The constancy of the smartphone's address is, as we shall see, a necessary first condition for the efficacy of the other two elements; if the smartphone's presence was not constant, the customized and consequentiality-altering nature of its address would not matter nearly as much (it would then be no different from a laptop or desktop computer). I first consider the ways in which the smartphone is a marked departure from past technologies of mass communication. The other communications technologies I focus on are the printed book, which Philip Loubere credits with "introducing true mass communication for the first time in human history" (6),

[24] Although as Dani Di Placido notes, there is a growing presence of online bots, which further complicates the idea of imagined communities through the injection of thousands of AI-generated replies and content.
[25] This structure is also analogous Herbert Marcuse's juxtaposition of the *ontogenetic* (individual) and *phylogenetic* (societal) levels, which he draws from Freud but adapts to his discussion of *eros* and civilization.

telecommunications (predominantly television, but also radio to a lesser extent[26]), and the computer.[27] By taking a cross-sectional analysis of three different eras just after the invention of new communications technologies, I hope to emphasize the difference in the effects of each technology on their users (as I shall refer to the handlers of all three technologies) in the first few decades after their introduction. I draw from Howard Rheingold, John Lienhard, and Michael Harris for this tracing of effects, though many authors have written on the histories of various communications technologies and media (Loubere, Gitelman, Kittler, Eisenstein, Parikka, Williams, and countless more).[28]

Following this historical overview, I address the key captological features that allow the smartphone to maintain a constant presence: portability, connectivity, and convergence (which in turn leads to greater convenience). I then offer a procedural rhetorical analysis of the logics that emerge from the constant presence of smartphones in social life: the **logic of connection** and the **logic of the digital default**. These logics will reappear in later chapters under slightly different guises, but it is here that we will begin to investigate the impact smartphones have on the wider functioning and flow of social life. The chapter concludes with a short consideration of the type of subject created (and addressed) by the constant presence of the smartphone: **the split subject**.

Chapter 3

The third chapter explores how the increasing customization permitted by the smartphone impacts users individually and collectively. I begin with a historical comparison of the level

[26] The reason I have chosen to focus more on television is because it operates on two registers, both audio and visual, whereas radio uses only audio and thus does not offer quite as much material for comparison; in this, television exemplifies Marshall McLuhan's description of a "cool" medium, versus radio's status as a "hot" medium.

[27] Although it could very well be argued that the written word itself was the first major communications technology, in this project I will be considering "technology" more narrowly as an intentionally constructed system (first mechanical, later electronic and digital) that serves the purpose of communication, rather than the use of an extant objects used as tools to produce symbols. This is certainly reductive, but for the sake of the scope of this project, a distinction of some sort must be made.

[28] I highlight some key points from these other scholars, but leave the vast history of communications technologies and media for enterprising readers to discover on their own.

of customization possible with print literature, broadcast media, and digital media. The comparison centres around the affordances of the particular communications technologies under consideration—specifically, those affordances that constrain or invite customization through interaction with the interface and its components. I also discuss options for customization of the medium's contents and genre (i.e., customization through choice). I then go on to discuss how the customizable features of the smartphone are themselves captologically persuasive to users. The three aspects of captological customization I discuss are at the level of interface, applications, and (self-) representation. This discussion highlights an interesting contradiction, in that designers promise (to invoke Rosner's tension between universalism and individualism) to offer customization that is both accessible for all and perfectly suited for each individual. In order to capture both sides of this tension, I will move between considerations of design decisions made by smartphone companies (the production and distribution stages) and the actual user experiences with these design features (the consumption stage). In doing so, I attempt to map the ways in which design decisions determine the smartphone's affordances and features as well as the ways in which users are anticipated or expected to interact with it. In this discussion, I also articulate how smartphones become extensions of the self (Belk), which prepares the way for later conversations about consequentiality and consequence.

The procedural rhetoric section addresses how these capabilities reflect and enable the broader double-logics that operate in contemporary society: the **logic of recognition/integration** and the **logic of control/optimization**. Unlike Bolter and Grusin's double-logic of immediacy and hypermediacy, these logics aren't paradoxical or opposed, but rather layered in such a way that one obscures the other, allowing the more insidious aspects to go unnoticed. To clarify further, both double-logics I discuss centre around values that *appear* to be beneficial to all people, but I argue that they work more so in support of capitalism by further integrating users into the economic system. The chapter ends by gesturing to the type of subject that is addressed by the customized and customizable address of the smartphone: **the integrated subject**.

Chapter 4

The final chapter takes a slightly different approach from the previous two, which begin with historical overviews of the element under consideration. A history of the sense of consequence associated with a technology's message is far more difficult to measure objectively, and so I instead split the chapter into a discussion of increased versus decreased consequentiality. I begin by discussing how the consequentiality of the smartphone's address is increased through the use of captology, specifically some smaller persuasive elements such as sensory features, haptics, and mechanisms on popular apps, and their associated psychological effects. I then connect these elements to *kairos*—an Ancient Greek term for the "right time" or "opportune moment"[29]— to explore some of the ways in which a sense of urgency or importance is amplified in human-computer (especially smartphone) interactions. I then discuss some ways in which the smartphone procedurally increases the sense of consequentiality attached with certain procedures or uses. In addition to a continued examination of *kairos*, I discuss how the **logics of visibility**, **the archive**, and **"right time"** serve to magnify the consequences (real or perceived) of the actions and interactions conducted through smartphones.

In the next section, I examine the decreased sense of consequence for users. I want to note from the outset that there are obvious points of contradiction between this section and the previous; I encourage readers to think of them as signs of the conflicting and self-contradictory nature of users' relationships with their smartphones. I first look specifically at the decreased sense of consequentiality resulting from the physical mechanisms through which users operate their phones, then at some other affordances and features of popular apps (such as Amazon's "Buy Now!" button). I then move to a procedural examination of the related logics of **the buffer, "infinite distraction"** (to borrow Dominic Pettman's phrase), and **"out of sight, out of mind."** I discuss the reduced consequentiality of user-initiated processes set in motion through smartphones, as well as the consequentiality

[29] The term was used in archery, weaving, and rhetorical contexts, where it referred to the opportune moment for speech or action.

associated with the technology's production itself. I argue that the inability to see how smartphones are manufactured or disposed of reduces the sense of consequentiality attached to them, because users are not fully aware of the complex (and destructive) processes required to produce and discard them. I conclude with a discussion of the **unmoored subject**, using this nautical metaphor to demonstrate how users are impacted by the consequentiality-altering address of their smartphones.

1.10 A Note on Footnotes

Because of the number of different methodologies and approaches I have combined in this dissertation, there are always multiple angles from which to consider the points I am making; the inability to adequately address each point from all angles is an unfortunate occupational hazard of inter- and transdisciplinary projects such as this. Ample footnotes have been included to fill significant gaps in the discussion, or to direct readers to particular follow-up texts that provide more detail. I cordially encourage my readers to refer to the footnotes when they appear in the text, as they are intended to extend and elaborate on my argument within its larger media theory and rhetorical studies context.

1.11 Conclusion

The following pages trace my attempt at using the smartphone as an "object-to-think-with" (Papert) to understand how subjectivity is being reshaped in the digital age. Just as Seymour Papert's gears served as a longstanding centre of fascination and model for many other aspects of his thinking and development, my goal is to understand the implications of how smartphones are now placed at the figurative and sometimes even literal centre of people's lives (and fields of vision) today. Papert defines "objects-to-think-with" as "objects in which there is an intersection of cultural presence, embedded knowledge, and the possibility for personal identification" (11). Smartphones certainly are situated at that nexus; the goal now

is to identify how this situation came to be, how the smartphone operates on a mundane level, and how it impacts users collectively as members of communities and society more generally.

Chapter 2
Constancy

2.1 Chapter Preview

I begin this chapter with a historical comparison of rates of evolution and adoption in three landmark communications technologies: printed books, broadcast media, and computers. I then discuss three key captological affordances that allow the smartphone to maintain a constant presence: **portability**, **connectivity**, and **convergence**, which also enhances the device's **convenience**. Following this, I turn to a procedural rhetorical analysis of the logics that emerge from the smartphone's constant presence in social life: the **logic of connection** and the **logic of the digital default**. These logics will reappear in later chapters, but it is here that we will begin to investigate the impact smartphones have on the wider functioning and flow of social life. I conclude by identifying the type of subject created by the smartphone's constant presence: **the split subject**.

2.2 History

In this section, I compare smartphones with previous mass communications technologies—books, radio and television, and computers[30]—by looking predominantly at the overall timeline of evolution and rates of penetration (which Harris describes as "the amount of time it takes for a new technology to be adopted by fifty million people" [31]). Examining the constant presence of the smartphone and its rapid adoption compared to previous communications technologies is a useful starting point for grasping the magnitude of the effects it has had in users' lives. While looking solely at numbers and historical data does not, of course, dig deeply into the rhetorical elements at play—that will come later—it is

[30] There are many communications technologies that could be productively compared to the smartphone, and many other methods of fruitful comparison. My decision to limit my analysis primarily to this selection is because these mass communications technologies caused radical changes in several spheres of life, just as the smartphone is doing today.

instructive to consider the importance of the speed of adoption with regard to ensuing social, political, and cultural shifts. Thus, by examining how and how quickly these three disruptive technologies were received in their milieu, I hope to highlight the similarities and differences among different media and their effects on users (as I shall refer to the handlers of all three technologies) throughout their evolution.

One point of note before I begin: although I will be considering the trajectories of broadcast media and computers separately, we should keep in mind the importance of their parallel development. In *The Language of New Media*, Manovich says that the trajectories of both modern media and computers began around the same time, because both "media machines" and "computing machines" were crucially necessary for modern mass societies to function (22).[31] Media and technologies such as photography, film, the offset printing press, radio, and television ensured that "the same texts, images, and sounds" were distributed "to millions of citizens—thus assuring the same ideological beliefs" (22). Meanwhile, computers ensured that "birth records, employment records, medical records, and police records" could be tracked and tabulated. As such, "mass media and data processing are complementary technologies; they appear together and develop side by side, making modern mass society possible" (23). As we shall see, the smartphone combines these two distinct technological trajectories in such a way that it has become the perfect tool for the functioning of contemporary post-industrial society.

2.2.1 The Evolution Process

The speed of evolution of particular technologies is interesting to examine because it suggests something about the speed at which adaptation to, and adoption of, the technology take place. While all advances in communications technologies had to pass through various

[31] It is important to note that, for Manovich, "[t]he history of technological media can be imagined as a series of many overlapping stages. At each stage, new technologies and new practices for creating, storing, distributing, and using content become prominent. But these practices do not replace each other in a linear fashion. Instead, the older ones continue to coexist along with the new ones" ("100 Billion" 474).

phases before becoming commonplace,[32] the length of these phases differed greatly depending on the time and milieu in which they arose. Lienhard describes these stages as passing from "gestation to cradle to maturation" (157).[33] The gestation period, he explains, is "a fairly long run-up period before the invention takes an identifiable form. It is a period during which we seriously begin working to create some capability that we strongly desire, without knowing what form that capability will take" (158). The cradle "follows the first appearance of the invention in a reasonably functional form. It represents a time during which inventors hone the rudimentary engine of their ingenuity and seek to determine what it is that they've really invented"; during this time, "the invention is altered in ways that make it more fully serve us" (158). Lastly, maturation is "the period after which the form has been roughly established, and in which we and the technology begin the process of adapting to each other… maturation [is] complete when the technology has finally reached a form that from then on is only inflected and no longer dramatically revised" (158).

Lienhard provides an instructive comparison of the evolution of books versus computers. The printed book is the first form of mass communication, according to Loubere (although Farman rightly points out that message sticks used by Indigenous peoples in Australia were the first *mobile* medium, dating back at least twelve thousand years [164]). The printed book had a gestation period of 208 years (1230–1438), a cradle period of thirty-eight years (1438-1476), and a maturation period of forty-nine years (1476–1525). The computer's evolution was significantly shorter, with a gestation period of ninety-six years (1834–1930), a cradle period of twenty-eight years (1930-1958), and a maturation period of twenty-five years (1958–1983). Lienhard, writing in 2006 just before the release of the iPhone, could not foresee the even greater speed with which the smartphone would complete its evolution.

[32] If they did at all—there were some technologies that never did become commonplace, such as the pneumatic tubes underneath Paris and New York.
[33] Nancy Baym offers a different but equally compelling set of stages that technologies go through: 1) marvelous and strange, 2) capable of creating greatness and horror and 3) so ordinary as to be invisible.

It is more difficult to separate the smartphone's evolution into clear periods since it is a convergence of multiple media and technologies rather than a totally new technology in itself. I will let the reader determine for themselves when the gestation period began (depending on what one counts as the catalyzing precursors, such as cordless telephones or networked computers), but let us assume that it ended in 1973 with the first mobile phone, the Motorola DynaTAC 8000X. From 1973, it took only twenty-one years for the first smartphone, the IBM Simon, to emerge in 1994 complete with touchscreen and applications. It was a mere eight years later that Blackberry's first smartphone (the Blackberry 5810) was released in 2002, and five more to the release of the first iPhone in 2007. At this point, the maturation stage for the smartphone was complete.

This speed of development aligns with the promise of "exponential growth" outlined in Gordon Moore's "Moore's Law," which states that the number of transistors on a chip roughly doubles every two years. We see the time from cradle to maturity drop from eighty-seven years with print in the fifteenth century to fifty-three with the computer in the twentieth century to a mere thirty-three for smartphones in the twenty-first century. As noted above, it helps that the smartphone was built on so many other developments and technologies that had culminated by the early 2000s, meaning that such a device could far more quickly become a reality rather than remaining the stuff of dreams or science fiction (alongside flying cars and teleportation). Nonetheless, it is still interesting to read predictions from the period where computers were maturing to understand the vast leaps in expectations about communication and technology. For instance, Rheingold wrote in 1985: "Fifteen years from now, there will be a microchip in your telephone receiver with more computing power than all the technology the Defense Department can buy today. All the written knowledge in the world will be one of the items to be found in every schoolchild's pocket" (16). While his timeline was a little over-optimistic, ultimately Rheingold was right.

This rapid increase in evolution speed is significant; for the communications technologies developed in the 1800s and onward, many people have actually lived through a large part of the evolution process (rather than just a small part of it, as would have been the

case for many previous communications technologies). As Harris writes: “For any single human to live through such a change is extraordinary. After all, the original Gutenberg shift in 1450 was not a moment that one person could have witnessed, but a slow-blooming era that took centuries before it was fully unpacked” (13). The speed of the development and widespread adoption of current internet-based technology leaves us with what Harris calls a “straddle generation”: people born before 1985 who can remember life as adults before the Internet. Humanity is living, he says, in “this brief historical moment, this moment in between two modes of being, [which is] a very rare opportunity. For those of us who have lived both with and without the vast, crowded connectivity the Internet provides, these are the few days when we can still notice the difference between Before and After” (8). In other words, this is a unique period of time in which a drastic shift is yet again underway, in which two distinct “modes of being” are present simultaneously. There was no such “precipice” in printing history because the evolution process took such a long time. This does not mean, of course, that medieval people were unaffected by the development of print literature (the Reformation would certainly prove otherwise); however, that development unfolded much more slowly and would have made its mark over generations rather than mere decades. Let us examine the differences in these early years in more detail.

2.2.2 Comparing Early Access and Adoption

The invention of the movable type printing press[34] had many important effects on medieval society: it allowed for wider distribution of documents than the previous scribal method of transmission, it inspired intermingling of cultures and ideas, and it spurred on the Reformation. However, despite the powerful effects we can identify in hindsight, Elizabeth Eisenstein highlights the difficulty of discussing the impact of print on society because society was so drastically stratified. Scribes, scholars, and the clergy were impacted far differently from rural villagers who, as Eisenstein notes, “probably belonged to an exclusively hearing public down to the nineteenth century” (130). When the medieval ages

[34] The first woodblock printing press had been invented in China around 700 CE, during the Tang Dynasty.

saw the introduction of printed books, society did not begin to revolve around increasing production of books and developing industries (aside from printing) to support and enable the delivery of books to all members of society. Increasing the literate population was not one of the goals of the rulers; in fact, it quite possibly served the rulers better if the general population was *not* literate, but had to rely on the clergy or government officials for their interpretations of written material.[35] Even with the Reformation, which dramatically increased the production and distribution of print literature, most people did not own books (with the possible exception of a bible), which were expensive and inaccessible to most strata of society. Certain groups found ways to absorb material anyhow—as in the case of the *pecia*, or "packets" that mid-thirteenth century students would rent and copy (Lienhard 149)—but for the most part, the new medium of print did not directly make its way into people's homes and hands for several centuries.[36] As such, the vast majority of the population was not a "reading public" (a distinction Eisenstein makes between being literate and being "habitual book read[ers]" [65]). Indeed, in the year 1800, the global literacy rate was just twelve percent (Loubere 149).[37] The presence of print media was nowhere near ubiquitous, affecting most people laterally and through the "trickle-down effect" rather than directly.

The next great shift in communications technology came with the ability to transmit signals over long distances through wires and waves, as discovered in the mid-1800s; direct communication lines like telegraph machines and telephones, as well as mass broadcasting through radio and television, soon followed. This expanded the reach of communication

---

[35] Harris cites an abbot from Morrison's *The Justification of Johann Gutenberg* who opined that "[t]he word of God needs to be interpreted by priests, not spread about like dung" (12).

[36] Lienhard states that "between 1455 and 1501 somewhere between eight million and twenty-four million volumes were printed, depending upon which expert's estimate we accept" (155), meaning that it took well over forty-six years for the fifty million mark to be reached.

[37] "It was only in the late nineteenth century that regular and extended school attendance became a central part of the educational process for British children and not until after 1945 in Eastern and Southern Europe. Around 1900, Western Europe was divided between a literate, economically developed and largely Protestant north, a centre with pronounced regional variations, notably France, and a less literate, underdeveloped south, notably Italy" (Houston).

beyond the physical transportation of messages, a major step towards the digital communications technologies that eventually developed. University of Minnesota's open textbook *Understanding Media and Culture* tells us that: "When the first transatlantic cable was laid in 1858, allowing nearly instantaneous communication from the United States to Europe, the *London Times* described it as 'the greatest discovery since that of Columbus, a vast enlargement…given to the sphere of human activity'" (14). However, telegraphy never obtained the widespread usage that future technologies did, likely because it was not designed for individual use (i.e., people did not have telegraph machines at home) but rather as an expedited form of postal mail. For that reason, I will focus here on broadcast media, the next iteration of mass communication that emerged in 1901 with radio and expanded in 1927 with television. For these technologies, the adoption of the mature form was faster than any previous technology. Harris identifies the rate of penetration for radio as thirty-eight years and the television at thirteen years, though these numbers have been debated; television was noted as twenty-two according to Jeff Desjardins's article for *Visual Capitalist* (31).

Regardless of specifics, it is important to highlight that, as Raymond Williams notes, "the direct priorities of the expanding commercial system, and in certain periods of the military system, led to a definition of needs within the terms of these systems. The objectives and the consequent technologies were operational within the structures of these systems: *passing necessary specific information, or maintaining contact and control*" (13, emphasis added). The drive to reach more citizens through radio and television was largely spurred on by the world wars of the twentieth century; leaders wanted to create and solidify strong national communities more quickly and dynamically than print material alone could allow.[38] The relative ease of use of the technologies was helpful as well. Unlike early books,

[38] The impetus to create imagined communities (Anderson) was a longstanding goal that preceded television and radio by many centuries. Eisenstein states that from the sixteenth century onwards, the printing press helped solidify the idea of class consciousness by providing visual representations of particular classes or groups in society (84), and Benedict Anderson discusses at length the role of printed literature, maps, and museums in the construction of burgeoning national identities in the eighteenth and nineteenth centuries.

which required that users learned to read (or had consistent access to someone who could) in order to make use of them, these media were relatively simple to operate in their massified forms. From a capitalist perspective, the biggest "improvement" broadcast media made over print was that it had a much stronger hold over its audience because it could be consumed even without direct engagement (i.e., reading) from the viewer, and could be consumed in tandem with other activities (thus allowing people to eat, work, and play with the din of the radio or television in the background). It was similarly marketed as a communal activity, much like early print consumption had been for most of the (non-literate) public. The postwar industrial boom served to provide households across Canada and the United States with goods and commodities that had been hitherto reserved for the wealthiest classes, such as automobiles, washing machines, and televisions.[39] The increased affordability of television caused the number of households with televisions to shoot from just six thousand in 1946 to ten million by 1951. By 1954, "there was a TV set in more than half of all US households. By 1962 ownership had surpassed ninety percent of households, and by 1978 it levelled off at ninety-eight percent (where it has since remained)"—a statistic "marking it as both one of the most universal and one of the fastest communication platforms to be adopted" (Loubere 210).

Compared to radio and television, computers and smartphones have achieved even quicker penetration rates, likely due in part to the speed with which these digital technologies moved from cradle to maturity. Rheingold's *Tools for Thought* describes the dawn of computers in the 1830s, from Babbage and Lovelace's "analytical engine" through to the developments of Engelbart, Licklider, Papert, Barr, and many others who strove to further the capabilities, connectivity, interactivity, and accessibility of the computing machines we know today. The computer went from its cradle in the 1930s—thanks largely to the work of Alan Turing—to people's desktops by the 1980s.[40] In 1983, when Lienhard

[39] For example, "television was initially available only to the privileged few, with sets ranging from $200 to $600—a hefty sum in the 1930s, when the average annual salary was $1,368" (*Understanding* 430).
[40] It was around the 1930s that "[d]igital computing as we know it today [found] its nascent stages in the middle- and late 1930s when thinkers like Alan Turing and Alonzo Church worked to conceptualize the

says the maturation of computers was completed, there were approximately two million personal computers in use in the United States. The rate of penetration for the first fifty million users was achieved within fourteen years (Desjardins n.p.). While the computer essentially began as an experiment within circles of coders and hackers[41] in the 1950s and 1960s, the computing power and languages that developed in the mid-1900s were soon integrated into many aspects of society (for example, Rheingold discusses the implementation of word processors in corporate offices). This was spurred on especially by the introduction of the personal computer (PC) in the 1980s. Before that, computers were operated through command line code, which made them highly specialized and inaccessible to a general usership. However, the addition of operating systems like Windows endowed PCs with the WYSIWYG (What You See Is What You Get) interfaces that are now so taken for granted. Two big players in this shift: Bill Gates, who was one of the first to cash in on operating system software, and Steve Jobs, who also capitalized on operating systems and intentional design to usher in "user friendliness."

Another notable development was the World Wide Web, initially developed in 1989 for CERN and made public in 1993. It had a penetration rate of somewhere between four and seven years (depending on the source).[42] As Rheingold explores in detail, the internet-enabled computer represented a massive shift in the way that people communicated with each other and conceptualized the world around them. It represented an overcoming, albeit in sometimes awkward fashion, of many of the foundational gulfs that had previously existed in human communication. For instance, the former impossibility of interacting and coordinating with many people across vast distances in real time, or of creating simulations

---

mechanization of logical operations by designing Boolean logic into electronic circuits, allowing operations to be carried out by flipping sequences of 'on/off' switches, later becoming the '1s and 0s' that we now commonly refer to as binary code" (Coleman 342).

[41] Though the term has strong connotations today, "hackers" initially referred to skilled programmers who had a particular affinity for coding.

[42] Since then, updates, platforms, and services created for computers have emerged at an ever-increasing rate. To give a few examples of the penetration rates of some more recent additions: Facebook reached fifty million users in approximately three years, Google Plus in eighty-eight days, and Pokémon Go in only nineteen days (Desjardins, Harris).

of things that could only be imagined to play out in "real time," eventually became not only possible, but accessible to the average user. Of course, most early users did not engage with computers in this way, but used them as word processors or to communicate with particular circles of users. As with print media, there was a wide variety of usage potentials and limitations based on the users' knowledge and familiarity with the technology. Many word processors were essentially electric typewriters, meaning that although they were *computational*, they did not have many of the functions we associate with computers today.[43] However, with such a rapid adoption rate, those who did not want to use computers were more quickly left behind or "outdated" in a society that was swiftly moving ahead with the integration and adoption of computers and the Internet in various spheres of life.

Smartphones, the most recently developed and swiftly adopted communications technology to date, have likely achieved this status because, to use Lienhard's term, people of the early 2000s were so well "primed" for this technology. Smartphones simply "made sense" in a society that was already moving faster and producing and consuming more than ever before, already accustomed to connecting with other people across time and space via their computers. Having a tool that could further empower individuals with freedom of mobility while maintaining that connection was simply the "next step" in the line of technological development. This is not to suggest that the development of smartphones was in any way inevitable or predetermined, but rather that these devices were designed to capitalize on many of the desires and gaps created by previous technologies. The readiness of the general population for smartphones is evidenced in the numbers: in 2007, the year the first iPhone was released, 122 million smartphones were sold, making its rate of penetration only a number of months rather than years. Comparatively, it took two years for the BlackBerry 5810 to surpass one million subscribers, a sign that North American society was not yet quite ready for the adaptation—or, perhaps, that Blackberry's target market was not as general as Apple's (Leung n.p.).

[43] See Matthew Kirschenbaum's *Track Changes: A Literary History of Word Processing.*

As of 2024, 4.88 billion people in the world own smartphones—a number Statista anticipates will rise to 6.38 billion by 2029 (Turner n.p.). This rise is a meteoric one. We have gone from zero percent of the global population in 1993 to nineteen percent in 2016 to sixty percent as of 2024, with adoption rates even higher in the United States (seventy-seven percent) and Canada (seventy-two percent). Harris calls the rate of technology absorption "stunning: "Just one generation after the first cell phone call took place (in 1973), [we] are now… nearing a 1:1 ratio with human beings" (31).[44] There are a number of factors which permit this speed of dissemination, most notably globalization and global capitalism, which facilitate the flow of resources and capital across the world (although certainly not evenly). There is also a general willingness to accept new technologies,[45] perhaps because many people have become so accustomed to the incredible rate of evolution of technologies and their integration into everyday life that resistance has begun to seem futile.

2.2.3 Conclusion

Based on this brief historical overview of the rate of evolution and penetration of mass communications technologies, there is something particularly noteworthy about the smartphone's development as a communications medium: the fact that it is so "young" and yet so ubiquitous. This ubiquity creates an unprecedented social situation in which life has been radically altered and rerouted without much time for people to adapt. I am not necessarily claiming that the smartphone has been *more* disruptive to society than previous technologies; such a statement cannot possibly be proven since, as Harris notes, "[l]iving in the real maelstrom of change… means blindness. And so the details of our own Gutenberg moment remain partly obscure" (21). Even the computer, Rheingold notes, had a delayed effect. As he wrote in 2000: "Because mass production of sophisticated electronic devices

[44] This assertion is corroborated by Turner's statistic that there are 7.21 billion smartphones in the world for just over eight billion people as of 2024 (some people own multiple and others own none, which accounts for the sixty percent ownership statistic noted above).
[45] The difference in openness to accepting new technologies is largely determined by age, with older adults being less likely to adopt new technologies than younger people—although research is showing that older users are beginning to adopt technologies more readily than in the past (Faverio).

can lag ten years or more behind the state of the art in research prototypes, the first effects of the astonishing achievements in computer science since 1960 have only begun to enter our lives" (14). For those of us living in the era of smartphones, the effects are felt swiftly and seriously, as with Harris's description (27-28) of toddlers trying to manipulate magazines like iPads. Although it is impossible to discern how much more is still waiting down the road, of course, it is already obvious that the still-young smartphone has had a drastic impact. The magnitude and speed of the smartphone's adoption prove that this *particular* communications technology has been able to overcome nearly all the barriers that formerly prevented or slowed the adoption of previous media: size, distance, cost, stakeholder interest, technological capabilities, etc.

Looking at the evolution and penetration rate of the smartphone compared to previous mass communications technologies is an informative start; however, this approach can only tell us so much. Namely, it can only tell us about the *number* of people who began using them, as well as the social conditions that primed or prepared the population for taking up the new technology. But this alone doesn't paint a full picture of the unique and powerful impact of the smartphone; for this, I turn now to rhetoric. The smartphone's constant presence would not be possible without specific affordances that enable broad types of use from a very broad range of users in a broad range of situations. The following sections in this chapter will explore the different facets of these affordances, how they enable smartphones to appeal to users in the rhetorical sense of both *making an appeal* and *being appealing* to engage with, and how these appeals have permeated and influenced contemporary society.

2.3 Captology and Constancy

To dig deeper into the importance of the constancy of smartphones, let us begin by looking at how these devices are able to stay "always on/always on us" (Turkle) using a captological perspective. Recall that captology refers to "the design, research, and analysis of interactive

computing products created for the purpose of changing people's attitudes or behaviors"—in other words, for the purpose of *persuading* them (Fogg 5). What I am looking at here are the captological elements required for the smartphone's address—the "planned persuasive effects" (Fogg 17) that enable its constant presence.

There are three key affordances that allow smartphones to maintain a constant presence. "Affordances," again, refers both to "the ways that technologies invite, as well as constrain, the possibilities of certain forms of interactions while acknowledging their socially constructed nature" (Madianou 61) and to "the physical properties of objects that enable people perceiving or using those objects to function in particular ways" (Sellen and Harper 17). First, smartphones are small and light enough to accompany users almost anywhere (in simpler terms, they are *portable*). This is a basic but key factor; if smartphones were bigger or more fragile, or required special handling during transport, they would not be able to exert a constant hold over users. Second, unlike previous communications technologies or media, even what Harold Innis identifies as "space biased" media like books and newspapers that were designed for portability, smartphones are always (or at least are designed to be) *connected*, which means that the address, or potential for being addressed, is constant.[46] Third, the smartphone merges the capabilities of many other forms of media into one convenient, hand-held device, which increases its centrality in daily life. In sum, smartphones are more present and more multifunctional than any past communications technology. This section will explore how this constant presence plays out for users as individuals by looking at the particular affordances in more detail.

2.3.1 Portability

One of the key captological aspects of the smartphone is the constancy of its presence on users' bodies (it is even considered a "wearable" by some scholars, such as Scott Campbell or Jason Kalin and Jordan Frith), which is made possible by its discreet size and the portability that this size enables. The idea for smartphones is that the easier it is to have them

[46] See Innis, *The Bias of Communication* and *Empire and Communications.*

tethered to each individual—made possible through waterproof casing, long battery lives, and adhesive phone grips like PopSockets—the better. Portability, from a captological perspective, is itself a suasive physical property of the smartphone because it means that users can easily bring their devices almost anywhere they go. As Heidi Cooley explains in *Finding Augusta*: "In a very immediate and visceral way, the design of our handhelds pleases. For many hands, these devices do feel like 'natural' extensions of the body" (28). Indeed, as Steve Jobs asserted in his 2007 MacWorld keynote address, with the design of the iPhone 1, Apple "designed something wonderful for your hand… [that] fits beautifully in the palm of your hand" (qtd. in Cooley 29).

It is interesting to chart the size of smartphones over time. The first smartphone, the IBM Simon, was 8x2.5x1.5 inches and 510 grams and was shaped rather like a brick. Smartphones now range in size, but tend to come in at less than half the depth of the Simon and weigh between 130 and 200 grams, despite being many times more powerful than the 1990s version. Such shrinkage is consistent with the aforementioned Moore's Law, although this law is coming to an end (or has already ended, by some accounts) because of physical limitations: transistors cannot be made much smaller, since they are already down to just a couple of nanometers long. What this law points to is the fact that the size of a given media tends to decrease over time as its necessary technological components becomes more compact and more powerful. Despite the technical freedom designers now have to downsize devices, however, more recent smartphone screens have actually tended to increase in size; the iPhone 1 came out with a 4.5-inch screen in 2007, but a screen of that size is now much less common than the 5.8–6.2-inch screens we see on newer models. This increase in screen size mirrors the increasing number of uses to which a smartphone can be put, although there is clearly a sweet spot between size, power, and portability.

This sweet spot, however, is not as easy to determine as designers might wish. As Cooley explains, "[i]n striving to fit devices into myriad individual hands without calling attention to them as computer interfaces, Apple's industrial design team follows an

institutionalized practice of forgetting that 'your hand' may be unlike any other" (29). Looking at Apple's iPhone 5, Cooley notes that

> this most recent iteration of the iPhone line assumes a (young) adult hand, with digits slender and agile enough to interact with the 'buttons' and 'keys' that mobilize content on the multitouch screen… Apple assumes this normal hand belongs to a consumer who can afford to purchase such a device and maintain a service contract that charges monthly fees. (33)

Apple has only continued to increase the size of its phones since Cooley's analysis.[47] The 2018 XS iPhone line which prompted complaints from female users had screens ranging from 5.8 inches to 6.5 inches (Gollayan); Apple's iPhone "Pro Max" line even boasts 6.7-inch screens. These phones are very clearly not "designed" for certain users; there is an exclusory ideal here that quite literally eludes the grasp of many individuals.

However, regardless of the size of the screen and device, one thing that smartphones continue to offer is an extremely light and portable means of accessing any information the user could desire at almost any time. Compared to laptops or tablets, even the biggest smartphone is comparatively compact. They are thus far more convenient, generally, to tote around than the former technologies, which require two hands (and often an external tool, such as a stylus, mouse, or keyboard) to operate. But size alone does not create the constancy of the smartphone's address; for that, its *connectivity* is crucial.

2.3.2 Connectivity: A Theory of Media Pushes and Pulls

> *When you pack a mobile persuasive technology with you, you pack a source of influence. At any time (ideally, at the appropriate time), the device can suggest, encourage, and reward; it can track your performance or lead you through a process; or it can provide compelling factual evidence or insightful simulation.*
>
> – B.J. Fogg, *Persuasive Technologies,* 186.

[47] Although the Samsung Galaxy S23 Ultra's 6.8 inches is the largest screen to date.

Although past media could be portable, and others could offer connection over long distances, it was not until the development of the Internet and mobile computing that the current level of connectivity became possible. What impact does this constant connectivity have in everyday life? What makes people notice it, and what makes it important for the way people are addressed by their smartphones? The short answer is that a smartphone's ability to connect to other devices (re)positions users as nodes within an ever more complex web of interaction. These connections take place both obviously—as in intentional messages sent to other users—and discreetly, such as with GPS and Wi-Fi location tracking. It is connectivity that keeps users on their phones and their phones on them, that makes people constantly reachable and able to reach others (whether individual others or massive online audiences[48]), and that ultimately sets the smartphone apart from previous communications technologies.

The novel possibility of having a smartphone present to fill every spare moment has led to people of all ages spending more time staring at screens than ever before. Whereas in 2011 the average American spent only forty-five minutes on the Internet on their phones, in 2021 that number jumped to two hundred and fifty-two minutes, which amounts to over four hours *per day* (Molla n.p.). As of 2023, YouTube, the second most visited website in the world, sees upwards of three hundred hours of video uploaded every minute, with over 3.25 billion hours of videos watched each month (Donchev n.p.). Facebook, the most popular social network site, has 2,895 million active users each month, eighty-one percent of whom access the platform solely from mobile (Smith n.p.). Instagram is frequented by more than one billion users per month, who spend an average of fifty-three minutes per day there (Smith n.p.). These statistics do not even cover the amount of time people spend using their smartphones as "phones," since ninety percent of the average smartphone user's time is now spent on social media (Spajic n.p.). However, these statistics alone, while attention-

[48] In other words, in "one-to-one, one-to-many, or many-to-many" forms of communication (Jensen and Helles 519).

grabbing, don't really get to the mechanism of how and why users are spending so much time on their phones. For that, I will turn to my theory of pushes and pulls.

Using the language of marketing, the smartphone's connectivity can be seen as enabling two different types of interaction: pushes and pulls. When we think of smartphones as having a "rhetorical address," it is the push factor that comes to mind, exemplified in the aptly named "push notification" (see Figure 1). The fact that a smartphone can give "suggest[ions], encourage[ment], and reward[s]" as well as "track your performance or lead you through a process" (Fogg 186) is part of the push factor that it exerts. The smartphone constantly conveys information—even when the user did not specifically request it— due to behind-the-scenes algorithms that convert actions in subsequent action-items and prompts in almost real time. It is because of these pushes (or "nudges," as Richard Thaler and Cass R. Sunstein would call them[49]) that users are frequently being addressed by their devices in a barrage of vibrations, notifications, and sounds.

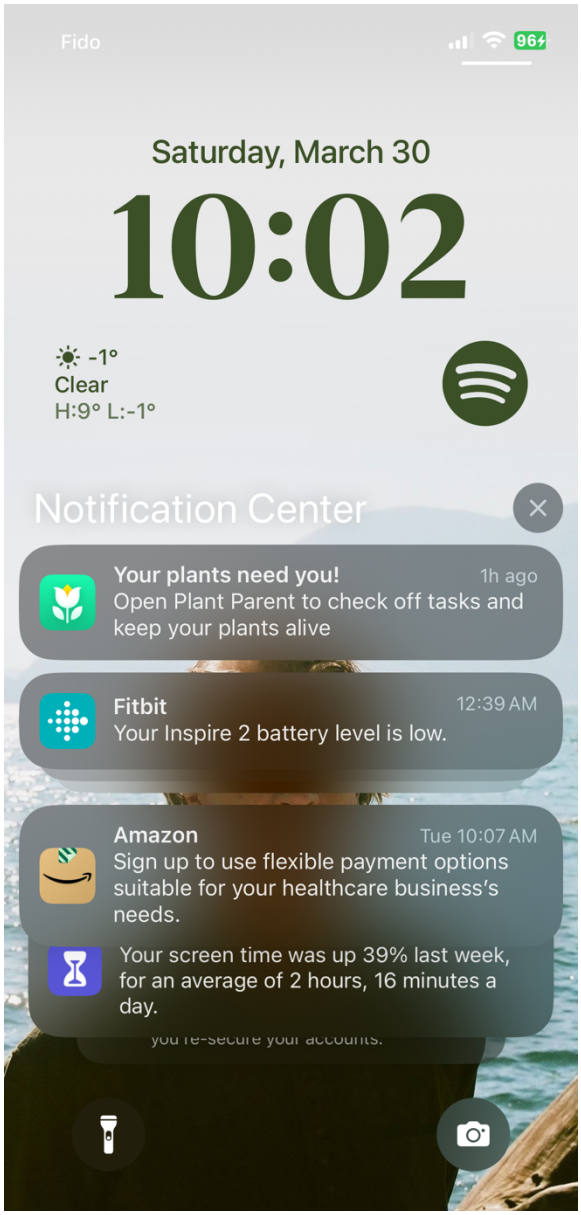

Figure 1: Typical "push" notifications

[49] See *Nudge: Improving Decisions about Health, Wealth, and Happiness.*

Conversely, the pull factor refers to the latent potential stored in a smartphone: the information platforms, search engines, social media sites, and other elements that "pull" users in. This is a much more subtle, but no less effective, approach to attract users' attention—one that at least gives the *appearance* of greater user agency and initiative, because the user is making an independent inquiry as opposed to responding to an address. The pull factor is further enhanced by user-friendly interfaces that are captologically enjoyable or easy to engage with—for example, the "infinite scroll" feature that many social media platforms make use of. This feature, developed in 2006 by Aza Raskin ("who has now made a second career out of his regret for it," according to Samantha Culp), relies on the user "pulling" the screen up in search of new content, which is delivered in a matter of milliseconds. Because of the endless nature of the scroll function—which by definition asserts that there is no end, no bottom to the rabbit hole—users can continually go in search of new information. And, once a user has been pulled in to search for information or products, they are often exposed to an increased number of relevant *pushes*, thanks to the algorithms working behind the scenes. In this way, pushes and pulls feed off one another, creating ever more persuasive appeals as they turn (in both a general sense and Muckelbauer's heliotropic sense) the user this way and that.

Many older media are uni-directional and asynchronous, meaning they cannot exert both pushes and pulls. For books and broadcast radio and television, the user must *do* or *initiate* something (the pull factor) in order to obtain the messages conveyed within these media. This is most obviously the case with books, which cannot engage a reader until they are retrieved and opened; they may have strong pull, but they cannot push readers to engage with them. Television and radio also operate largely through pulls: the audience is required to take the first step in order to engage with the technology. The smartphone's most direct precursor, the landline telephone, is similar to the smartphone in that it can both push (ringing to indicate an incoming call) and pull (the buttons allow users to place calls). However, the landline telephone lacks both mobility and wider connectivity, and therefore its pushes are, while effective, less totalizing than smartphones. People can be "tethered"

(Turkle) to a landline or a desktop computer and thus tethered to a specific location, but smartphones are tethered *to* the user—the whole point is that the person is always reachable, regardless of where they are.

A similar argument applies to the other precursors of the smartphone, desktop and laptop computers, in that they can make both pushes and pulls to the user. However, although the notifications, advertisements, and messages are still waiting on a desktop web browser (and can even alert users audibly to their presence with notification sounds), they cannot follow users around in the same way that a smartphone's notifications, advertisements, and messages do. This is because users can turn a desktop computer off and walk away; the smartphone does not so easily permit such detachment. This is because people have a different relationship to smartphones, and thus different expectations about how and when they can be used. For example, one would not attend a music concert or first date with a laptop in tow, for many reasons, but a smartphone is a perfectly acceptable and even expected companion in these spaces. The lack of prohibitions makes it harder to voluntarily leave the devices at home, or even to avoid them in spaces where they are forbidden (as attested by my first-year students' eternal difficulty with following the "no phones in class" rule). As Peter Vorderer and Christoph Klimmt point out:

> Individuals used to intend to be online, and if this was possible, they executed a specific behavior, which subsequently let them be online for a given amount of time. Today, in contrast, being involved in mediated communication and maintaining availability to communicate has become the norm for most users. (57)

In effect, users no longer toggle between online and real life—one overlays the other, forming a constant current of awareness between the user and the online world that might be tucked out of sight in a pocket or backpack, but certainly not out of mind.

How does connectivity operate behind the scenes and below the notice of everyday users in a persuasive manner? The conversation now turns to the work of Zuboff, Crary, Farman, Aschoff, and other scholars of privacy and data. Looking more critically at the connectivity of smartphones, we see that it is often used for tracking purposes. Location-

based services rely on the constant signals received from users' phones to determine how busy a given store is, what ads to display, and when to expect precipitation. In this sense, connectivity creates a more seamless and persuasive experience for users, whose phones seem to always have the information they need at the time they want it. Furthermore, as Farman and Harris note, smartphones become more helpful as they gather more data on what people do and where they go. The smartphone's constant connectivity affords users frequent chances to add input into various systems (whether by leaving reviews, checking in at a location, tapping to pay for the bus, etc.). The constant connectivity coupled with user input also means that smartphones can begin anticipating future participation by providing tailored recommendations or information. As I will discuss further in Chapter 3 on Customization, even what users can see on their screens is shaped by their previous patterns of connectivity, as is the case with Google Maps highlighting certain stores or types of venues (and not others) based on users' previous locations.[50]

2.3.3 Convergence

The last piece of this captological conversation on constancy that I have hinted at above centres around the way in which the smartphone represents a convergence of many other forms of media. The term here comes from Henry Jenkins, who defined "convergence" in *Convergence Culture: Where Old and New Media Collide* as "the flow of content across multiple media platforms, the cooperation between multiple media industries, and the migratory behavior of media audiences who will go almost anywhere in search of the kinds of entertainment experiences they want" (2-3). The smartphone is a perfect example of the convergence of new media. Helles notes that smartphones offer "the parallel presence of more or less all media on a single, mobile platform," which are all "available in every instance of medium choice"; this allows users an "unprecedented level of discretionary power to select and combine media in communication" ("Intermediality" 16). Users can

[50] For a full–and frightening–examination of issues of privacy and surveillance, see Zuboff, *The Age of Surveillance Capitalism.*

easily flip between several different channels of communication, each selected specifically for their desired audience: a phone call for Grandma, Facebook Messenger for high school friends, Slack channels for coworkers, FaceTime for calls with partners, and the list goes on and on.

In Fogg's view (and others like Nir Eyal, Thaler, and Sunstein), having many forms of communicative affordance available at one's fingertips is advantageous because it increases the number of opportunities for persuasive communication. From a captological perspective, the more features the smartphone offers users, the more it can "hook" (Eyal) users, because it is harder to get away from this device that controls or facilitates so many daily interactions. Indeed, one of Fogg's key tenets of persuasion through computers is that they fulfill many functions for the user, serving as tools, media, and social actors. For the average user, the smartphone can do almost anything that computers can do—though Anne Thorhauge notes that "the smartphone seems to work in relation to the computer as a monitoring device, while the large screen and keyboard of the computer allows for the handling of more complex communication" (71)—but with the added benefit that it is available for use almost anywhere, anytime.

Fogg is particularly interested in how designers, advertisers, and producers can capitalize on opportunities to reach users and persuade them to take specific action. He gives the example of healthcare apps, which monitor and remind users to take their medication at the correct time with a pushed notification—just one more way that the smartphone converges previous media, and even begins to fulfill roles previously held by human beings. Given the right settings and information, the smartphone can (but should not necessarily) take on the role of a doctor, coach, friend, teacher, and therapist, as I will discuss further in Chapter 3. The convergence not only of different *types* of media and communication formats but also of the social world into a digitized format is extremely convenient for users, who rarely have to look farther than arm's length for entertainment, advice, information, or conversation. Smartphones thus become mobile "window[s] into a datascape" that is always dynamic and shifting and full of new possibilities (Manovich 86).

2.3.4 Convenience

On the note of convenient use and convenience, it is undeniable that the smartphone's affordances make it a useful tool for everyday use. Fogg calls the fact that such a device is "always available (it's near the user) and responsive (it's instantly on—almost no delay to boot up or load)" the "convenience factor" (188-9). An important aspect of this convenience is the (almost) seamless *continuity* of experience that smartphones allow—especially for Apple users, who can access iMessage conversations, Notes, and Safari history by MacBook, iPad, or iPhone with equal ease. Because of this possibility for synching content across screens and devices, the user is never really forced to log off. Toggling between multiple devices, they can easily pick up conversations, searches, and activities that formerly would have been left behind when they left their desktop.

Figure 2: Lock screen with shortcuts to a range of apps and features

The convenience factor is also bolstered by ever-lengthening battery life and increasingly "intuitive" interfaces that permit voice or touch (or even now facial) activation, as well as quick-loading apps such as the camera, which allows users to almost instantly capture a moment in real time (no more fumbling with lens caps or camera bags!). These affordances make it easy for users to

engage with their phones, even if their hands aren't free to text. The convenient nature of the smartphone is exemplified by the fact that the device is designed to remain "on" at all times, meaning that its default setting is "*ready*."[51] This is very different from many past communications technologies, which are "at rest" unless they are in use. For books, television, or radio, the default is "off," but the purpose of a smartphone is that its capabilities are only a screen tap away whenever users need them. If users get lost, want a speedy restaurant recommendation, or need to call a friend to confirm a meeting time, smartphones can provide near instant support. Having shortcutted apps on the lock screen (see Figure 2) further streamlines the process. Phones are thus conveniently positioned to help users with the "micro-coordination" (Ling) of routine and non-routine elements of daily life. They are persuasive in this sense because they so elegantly enable users to complete so many tasks with so little effort. In a time where productivity and efficiency are becoming increasingly important, the convenience factor is huge.

2.3.5 Conclusion

This section has focused particularly on users' experience with smartphones by asking how these devices "appeal" to users through their constant presence. As we now know, the first sense of "appeal" (being appealing) comes largely from the simple convenience factor of the smartphone's size and portability, as well as from the plethora of options for multimodal engagement made possible by the convergence factor. The second meaning of appeal (making appeals) is possible because of how connectivity, combined with convergence, promises a steady stream of relevant and fresh information and entertainment options. Now that we have explored the ways in which smartphones have been intentionally designed to capture and hold users' attention, let's look at how their constant presence is (re)shaping broader processes, procedures, and social logics.

---

[51] As Vorderer and Klimmt explain: "During periods when owners of these devices are currently not devoting their attention to them, smartphones and other mobile hardware continue to collect incoming messages, to update status information of these owners' interests (e.g., on weather, stock prices, or the functioning of appliances back at home), and to stay ready for immediate use" (55).

2.4 Procedural Rhetoric and Constancy

> *Like writing, clocks, and the printing press, the Internet and its cronies are indiscriminate game changers. They don't just enrich our experiences; they become our experiences*.
>
> – Jason Farman, *Delayed Response,* 19.

I have considered the smartphone's constant presence from a captological perspective; now it stands to examine how this constancy is rhetorical in a procedural sense. Today there are far more procedures involved in *using* smartphones on a daily basis and far more procedures *involving* smartphone use. It is true that through these many procedures, smartphones conveniently enable people to accomplish many different tasks, especially to foster connections in various ways with other individuals or groups. A superficial analysis might end here—smartphones are so central in modern life because they are simply so useful and give users so much! But, of course, there are many layers beneath this superficial level (and, as Cal Newport argues, taking utility as the sole factor in judging a technology's value is a slippery slope). In order to get a fuller picture of the procedures involved in smartphone usage, we have to go to the thing itself. The constant presence of smartphones has very important consequences for how people live their daily lives, because communications technologies do not just structure *moments* of communication, but also broader habits, patterns, and procedures.

Recall that for Bogost, procedures "found the logics that structure behaviour" (7); asking "*how does this work?* requires taking a set of cultural systems apart to see what logics motivate their human actors" (8). There are many logics and values that motivate human actors in the case of smartphones that become more apparent only once pointed out (in keeping with the fact that a technology is invisibilized as it is normalized). I will look first at a key logic that tends to motivate users: the **logic of connection,** enabled by the smartphone's many pushes and pulls. I'll then argue that the constant presence of the

smartphone in itself makes a very persuasive argument about the device's "necessity" in daily life through the **logic of the "digital default."** Lastly, I'll consider the toll that this digital default has on non-users who do not or cannot share the overarching social values associated with smartphone-enabled connection and efficiency.

2.4.1 Logic of Connection

When thinking about the values smartphones promote, one that instantly comes to mind is "connection." This is true on both an individual and social level. The smartphone is a device whose functioning is predicated on the fact, or assumption, that the user is always reachable, always capable of sending and receiving information. This expectation of receptivity has had an important effect on social norms and expectations. Ling, writing in 2012, likened the prevalence of mobile phones to mechanical clocks, cars, and the Internet, in the sense that the mobile phone is also "a technology that has become a part of the social fabric. It is part of what holds us together. We use it often and *we expect the same of others*" (xi, emphasis added). Just as people are expected to have access to time-telling devices and reliable transportation, they are also expected to have their phones on and on them (to adapt Turkle's phraseology). There is, Ling says, "an expectation of reciprocity" with mobile technologies: if a person wants to reach others easily, they should be easily reachable themselves (xi). Thus, in order to remain connected, users must also remain open to the streams of notifications and information coming from of their devices that signal their "connected presence" (Licoppe, "Connected" 2004).

These expectations are evident even from the design of the phone itself: there is only *one* way to turn the phone on to access all its features (as is common with other media), but many options for reducing or screening its default on-ness (silencing notifications, airplane mode, "do-not-disturb mode," etc.). The point is, the user can control the obtrusiveness of the notifications they receive, but they are still supposed to be able to *receive* them. In other words, the procedure around connection and reception is one that enables users to control and modulate their availability (more on this in Chapter 3), but the underlying level of connectivity supersedes individual attempts to gain control while still using the phone as it is

intended to be used.[52] To this point, Vorderer and Klimmt note, "if an individual rather prefers to abstain from being online for some time, he or she may have to make specific arrangements (such as activating the 'flight mode' of the mobile device) and even to justify this behavior as it lately has increasingly been regarded as unusual or impolite" (57).[53] That is, even when users do choose to go "offline," it is usually acknowledged as a temporary suspension of connectivity, pointing to the fact that users' "default setting" is now also "on(line)."[54] For example, consider the "out-of-office" automatic responses that many email-users institute when on holidays or otherwise unable to respond to emails within a reasonable span of time (whatever that may be). An obvious issue with this procedure for disconnection is that users are usually only quelling or delaying the flow of messages and information rather than stopping or reducing it. In fact, measures such as going into Airplane Mode or setting a "Do Not Disturb" autoreply are more likely to *increase* the overall total of addresses requiring one's attention rather than diminishing it. Therefore, attempts to "disconnect" are almost invariably figured as short-term breaks rather than open-ended, long-term decisions.

When we compare this situation to the past, we can see just how novel this state of affairs is. The messages contained within a book's page remain the same, semantically, whether a book is freshly printed or five hundred years old; there is no accumulation of novelty. The content of broadcast media is a river of information that one may choose to wade into at any time by turning on their television set, but again without full personal

[52]This is an issue that Avital Ronell identified in 1989 with the standard telephone when she observed that "the call of the telephone is incessant and unremitting. When you hang up, it does not disappear but goes into remission… There is no off switch to the technological. Remember: When you're on the telephone, there is always an electronic flow, even when that flow is un-marked" (16).
[53] As Mark Hanin's indispensability thesis states: "many sane adults have no practical way of avoiding often prolonged entanglement with digital ecosystems in the workplace and their personal lives" (qtd. in Fasoli 7).
[54] As Morozov writes: "Of course, some claim that they can still imagine what it's like to go without 'the Internet' and its toys for a week or two. What they don't realize is that this experience of the 'offline' is also profoundly affected by the experience of the 'online'" (22).

investment because the broadcasted messages are not intended solely for any one viewer.[55] With the constant, connected presence of the smartphone, however, users can amass massive amounts of material waiting for them in textual, aural, and visual form—as much as the busiest monarch would have had to deal with between letters, petitioners, and official documents.

The desire or compulsion to remain open to this potential for connection affects users as they move through their daily lives, subtly reorienting the flow of their activities around their devices.[56] In order to maintain their smartphone's capabilities, a user must ensure it is fully charged, lest they suffer "low battery anxiety" (the feeling of panic a person might experience when their phone battery falls below twenty percent [Lee and Husain 1]). In order to carry out the many actions and interactions smartphones are used for, the devices must constantly be within arm's reach; indeed, a study done in 2013 by Morgan Stanley found that ninety-one percent of the participants surveyed keep their phones within arm's reach (qtd.

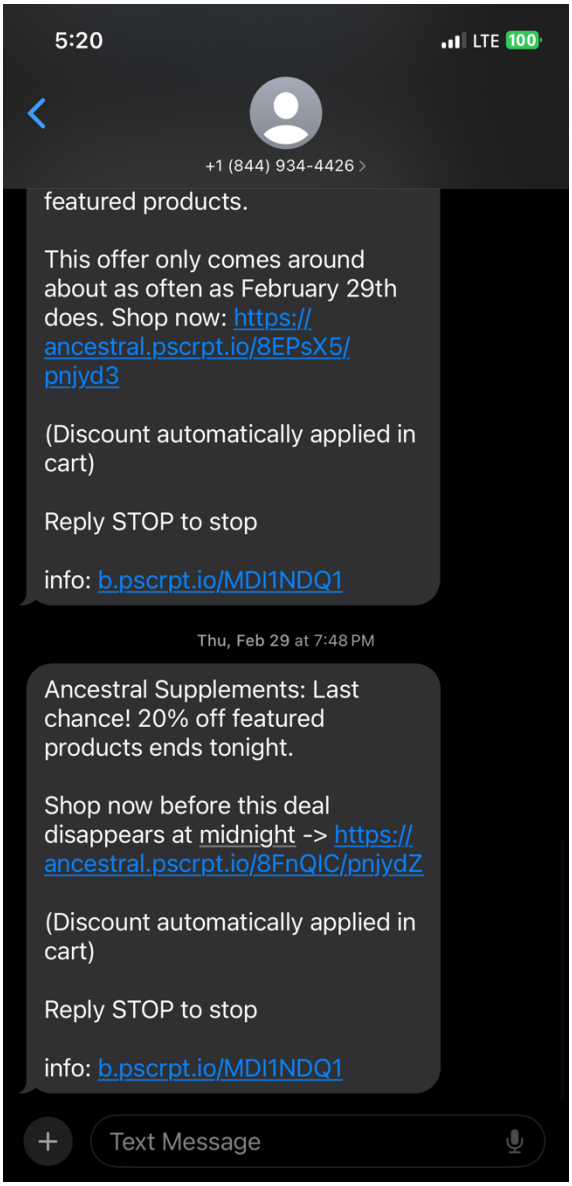

Figure 3: SMS promotions

[55] See Williams, Thorhauge, on "flow."
[56] As Carolyn R. Miller writes: "People have not only their own needs to satisfy but those of their tools: production, maintenance, improvement, coordination" (230).

in Conner). This is a necessity when buzzing in deliveries or visitors to apartments, setting timers and alarms, or even accessing email or university webpages requires the use of a smartphone. Oftentimes, even with pushed notifications turned off—when users are trying to be "good," or anti-social, or need some time for themselves—they are still often required to engage with their smartphone. When people are out in the world, of course, this push-and-pull becomes even stronger; smartphones are needed to navigate spaces, check in to appointments, access online menus, and coordinate plans, amongst many other functions.

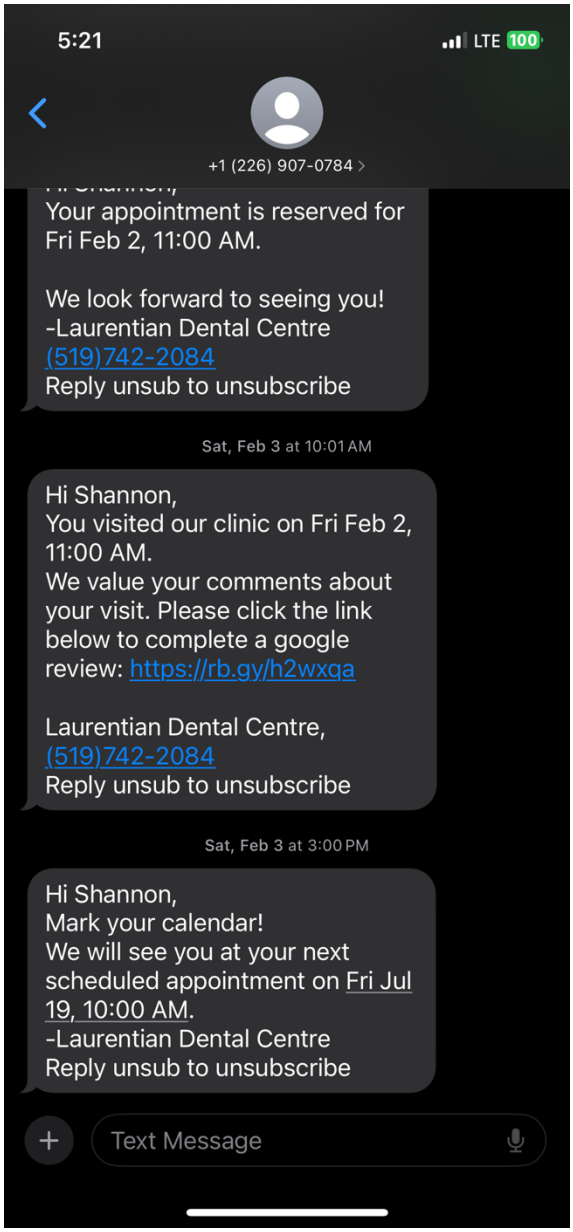

Figure 4: SMS reminders from the dentist

To speak briefly to how this logic of connection manifests more broadly across the social realm, I want to point to the proliferation of appeals from various organizations, businesses, and institutions to "*Follow Us on Facebook!*" (or Instagram, or Twitter) or subscribe to text updates or emails. Under the guise of maintaining connections and providing useful updates within specific networks, many of these platforms enable easy marketing opportunities using pushed messages to further engage existing and prospective customers. While users may not like the frequent text messages from retail stores, they probably *do* like the exclusive coupon codes

they receive—a benefit made possible by the *connection* that the individual maintains with the retailer (see Figure 3). Furthermore, these little discounts or bonuses are positioned as "insider advice" or rewards for loyalty, thus fostering a more *personal* sense of connection between the retailer and customer (user).

Beyond retail, many other types of service-providers and practitioners now seek to maintain connection through text or email. Dentists can remind clients of upcoming appointments (see Figure 4); therapists can notify clients of last-minute openings; auto shops can recommend that clients come in for seasonal tune-ups. These pushes are made possible because the addressee has provided the necessary information required to opt in to these marketing messages, whether by intentionally subscribing or by supplying contact information in order to complete another necessary form (for example, providing an email address to have a receipt sent to). Insofar as this side of the logic of connection goes, more connections (for businesses) mean the potential for more engagement, more patronage, and ultimately more profit.

2.4.2 The Digital Default (and Its Dark Side)

In her essay "Technology as a Form of Consciousness," Miller distinguishes between a) simple tools, which "assist in our interference with the external world" by "extend[ing] immediate biological capabilities" and b) more evolved forms of "human extension," which soon "take on purposes of their own" and "become distant from the original human capability they first extended" (229). She calls the latter "high-context technologies." These technologies become "a major part of a culture's explanatory system" when they are built up over time (230), causing "habits of behavior, institutions, further technology, and ways of talking and thinking" to "buil[d] up around the original extension" (229). This analysis, written in 1978, describes with striking accuracy the development of the technological and social infrastructures related to smartphones. Because so many platforms, services, and networks are accessible from smartphones, these devices have become the "common sense" tool for many more tasks than original mobile phones (and certainly telephones) could have accomplished. In other words, because of the ever-increasing capabilities of the smartphone,

and especially its heightened role of maintaining connection during the COVID-19 pandemic, *"digital" has become the default*.

As Steven Jones writes in *Against Technology*, even "quixotic dissidents within the technological society often share with happy technocrats the fundamental assumption that technology is taking over—or has already done so, for all practical purposes" (3). That is, critics and proponents alike operate as though the takeover of technology is a done deal, something that must be dealt with and adapted to rather than something that can be fought against or rejected. Similarly, for Miller, "[h]igh-context technology comes to seem relentless, inevitable. It is so significantly a part of our culture, of social reality, that it fundamentally affects the ways we think and speak and write; it affects, inevitably, what we believe to be ethical" (230). Synthesizing and summarizing these affected elements, we can also say that high-context technology affects the way people interact with one another and the world around them, usually by insinuating itself *between* people and the world (in what Miller calls "the intervention of technology between human intention and the external world" [230]). Many aspects of (bourgeois, capitalist) social life, including dating, shopping, and travelling now have smartphones as integral mediators. As we know from the historical section of this chapter, this is a very novel and very rapid change from the past, where most communications technologies were too clunky, too breakable, or too tangled in wires to be portable (and not multifunctional enough to bother toting around). Indeed, this relatively new "common-sense-ness" associated with smartphones is important because it indicates that the procedures around smartphone usage have extended far beyond the phone's original capabilities as a coordination device (Ling). The mere "fact" that more aspects of daily life permit or require smartphones for optimal access creates a sense of logical rationale, as if this were only a natural and necessary development.

The relentlessness and seeming inevitability of the smartphone's presence (and digital technologies more generally) becomes abundantly apparent after barely ten minutes in a public space. It now feels impossible to go anywhere without seeing smartphones. Because of this new digital default, everyday behaviours like taking public transit, going to

the gym, and eating meals are now haunted by the spectre of the smartphone, either explicitly or implicitly. For example, consider the procedure of eating meals. Explicitly, phones can be involved in the actual procurement of meals using apps like UberEats or DoorDash, or in the tracking of macros or calories. Implicitly, rules about phone usage at mealtimes requires a consideration and negotiation of the role of smartphones at the table (even if they are prohibited).[57] Similarly, phone-free places such as spas, movie theatres, and public changerooms are now compelled to actively advertise that smartphones aren't welcome—and even then some people will not comply. Each of these new smartphone-related considerations, small or large, create shifts in the way people experience their everyday environment, contributing to the procedural argument in favour of smartphone usage (even if only in certain places and certain times). The reverse logic of "no phones at the dinner table" is that smartphones are assumed to be typically present on the user. Similarly, books on advice for how to use smartphones and digital technology wisely, such as Jaron Lanier's *Ten Reasons to Delete Your Social Media Accounts Right Now* and Cal Newport's *Digital Minimalism*, assume a "resting state" of smartphone (and social media) use. This might seem like an obvious or tautological statement, given that we are aware of the prevalence of smartphones in society. However, it is still very much worth noting how quickly and completely this new state of affairs has arisen, and how much energy and time is now devoted to dealing with the digital default—either through optimization, negotiation, or (attempted) emancipation.

As noted above, the shift to the digital default has been greatly exacerbated by the COVID-19 pandemic, oftentimes with what appear to be good intentions. Obvious benefits of this shift during the pandemic included keeping immunocompromised people safely out of potentially dangerous spaces, enabling people to order groceries and other goods from home, facilitating participation in online social activities, preventing waste and cross-

[57] According to a survey by Home Run Inn, eighty-one percent of Zoomers and sixty percent of Millennials admit to scrolling during mealtimes—and twenty-five percent of Zoomers and twenty-three percent of Millennials admit to having "phubbed" someone to check their phone during a meal.

contamination from paper menus, etc. Furthermore, digitalization of various services and in-person situations enabled the economy and society to continue functioning with some semblance of normalcy; people could still "go" to work and school, "see" their relatives and friends, select and purchase goods that would be delivered to their door.[58] Without in-person interactions, digital connection became the glue—and the default—for many. However, many negative trends have also risen from this mass digitalization: increased data mining and potential for web surveillance, job loss due to automation, and lack of equal access for non-users. These topics will be discussed later on; for now, I want to explore how the logic of the digital default impacts non-users.

2.4.3 Non-Users and the Digital Default

It is first important to clarify what type of non-users I am referring to here, since there are multiple.[59] Sally Wyatt et al.'s taxonomy identifies four different types of non-users, including: "resisters" (who haven't used a given technology simply because they don't want to), "rejectors" (who no longer use a technology, either because it is too expensive, too boring, or inessential), "the excluded" (who have never been able to gain access to or use a technology), and "the expelled" (who are involuntarily forced to stop using a technology due to prohibitive cost or loss of access). Looking at my target populations, very few Millennials and Zoomers fit into these categories of non-use. As the earlier statistics from GilPress convey, only six percent of Millennials and two percent of Zoomers are not listed as having smartphones; however, it is much harder to find information about these non-users. This is itself indicative of the deeper issues associated with the digital default. How are we to learn about these non-users without accessible information as to why they are non-users? Because of this inability to dig into the particulars of Millennial and Gen X non-use, I will offer a more general depiction of the potential consequences of non-use and then follow with a

[58] Though for a frank—and humorous—account of the early days of the pandemic and the digital shifts it heralded, see David Sax's *The Future is Analog.*
[59] For a comprehensive examination of users, see Oudshoorn and Pinch.

consideration of the more common type of non-use in my chosen demographic: temporary non-use (which may be caused by any of Wyatt et al.'s categories above).

Speaking in general terms, non-use might seem like a great escape from the hustle and bustle of smartphone-facilitated daily life, because non-users are free from all of the pushes and pulls that captivate their phone-using peers. But most non-users are not necessarily more free to pursue life as they choose (even if this is a life of complete solitude) because everyday life is so highly mediated by smartphones. As Stephanie Hankey et al. write: "Device ownership unlocks agency for people in their daily lives – acting as both an 'enabler and a magnifier' – and this means that smartphone use can bring both freedom and control" (20). While I disagree with the latter claims on a broad scale, it is true that smartphones serve as enablers and magnifiers of people's ability to act in the world. Living without a smartphone puts people at social, bureaucratic, and economic disadvantage—largely because society now assumes the ubiquity of smartphones and has adjusted many processes accordingly. For one, non-users may face difficulties accessing the same services and opportunities as their better-connected counterparts. Consider again the rapid digitization of many services and systems due to the pandemic; people without digital devices have had to jump through increasingly complicated hoops for accessing both private and public services such as healthcare, administrative support, and even access to public facilities and trails. When a person is a non-user, especially as a result of exclusion or expulsion, they are essentially "left behind" in today's increasingly online society, which often also means being barred from non-digitized life-enriching activities. Unless an individual is already solidly in a comfortable social position (often, this means being retired or otherwise not needing to work) or has a strong social or familial network, the digital default is demanding and unforgiving.

Temporary non-use or suspended use also has consequences due to the digital default. It is telling that there are studies linking anxiety and depression both to smartphone deprivation *and* to excessive usage. The notion of deficiency is important here: because of the constant presence and contact users have with their smartphones, when people do not

have their devices nearby, it feels as if some part of them (and no small part) is missing—because it is. Users are missing their connection to other people, to information, to services, and to applications that they might need at any moment to perform any number of tasks in daily life. For example, in *Alone Together* Turkle examines how many teenagers now route their emotional wellbeing through phones: "A mobile phone gives us the potential to communicate whenever we have a feeling, enabling a new coupling of 'I have a feeling/ Get me a friend.' This formulation has the emotional corollary, 'I want to have a feeling/Get me a friend'" (127). Turkle suspects that "[t]he anxiety that teens report when they are without their cell phones or their link to the Internet may not speak so much to missing the easy sociability with others but of missing the self that is constituted in these relationships" (127). What Turkle is describing here is a newly inscribed procedure around processing emotions (and thus constituting the self in relation to these emotions), which can only be articulated and processed, so to speak, in the (digital) presence of others, with smartphone in hand.

For these teens, the smartphone's constant and comforting presence means that its absence can lead to feelings of loneliness, overwhelm, and deficiency. Furthermore, this may not just be a *feeling* of deficiency; if we follow Marshall McLuhan's argument in his chapter on "The Gadget Lover: Narcissus as Narcosis" in *Understanding Media,* people really do become deficient without the technologies they have grown accustomed to, because these technologies have extended parts of their bodies and thus rendered the parts themselves insufficient or numb. Leaving smartphones behind also means leaving behind the lives that people have cultivated on and through them—the connections, profiles, statistics, and everything else that would suffer or change should the devices be abandoned—and this is, for many people, untenable.[60] Thus, the flip side of this logic of digital default is the logic of *deficiency*. It positions individuals as inherently *less-than* if

[60] Furthermore, Turkle notes that smartphones offer a quick and constantly accessible source of validation and affirmation (128), not only for one's feelings but for one's appearance, purchases, and even life choices. Thus, losing access to one's source of validation often means losing confidence in the choices that required validation in the first place.

they lack a smartphone, social media presence, and access to all of the smartphone-enabled features that are now taken for granted as "common sense."

As a final point, I want to note that the issues discussed above are not limited to non-users; even users who have older devices are at risk of experiencing many of these same pitfalls. As Hankey et al. note, people who use older smartphones (they speak specifically of people living in poverty) often have devices with "operating systems that are no longer supported by vendors. Out-of-date hardware and operating systems can cause harm to the user – the further away a user is from the newest operating system and modern secure hardware, the more problems arise with security and functionality" (10).[61] That is to say, to be an ideal "smartphone user," the individual not only needs to *have* a smartphone, but to have a current model that is supported by the manufacturer's frequently updating operating system. I will touch on this more in the following chapters, especially in relation to Chun's *Updating to Remain the Same*, but the point here is that even partial, "imperfect" smartphone use is a detriment to individuals' ability to function within the rapidly changing and updating digital landscape.

2.4.4 Conclusion

My goal here has been to look behind (and beneath) the structures that have been built up through smartphone usage in order to determine what types of arguments have been formed by these usage structures. The relatively novel ability to maintain constant connection does not come without a price—even if users are so accustomed to this price (and procedure) that they no longer recognize it as such. Users' awareness of the potential for constant connectedness (and, indeed, "perpetual contact" [Katz and Aakhus]) has led to what Vorderer and Klimmt call a state of "almost permanent psychological vigilance" (57): the "Permanently Online, Permanently Connected" (POPC) mindset.**"** The POPC mindset is

[61] They add: "'Software rot' is directly linked to socioeconomic status, and this dynamic creates a cycle of further entrenched disadvantage, as often older devices owned by such communities can't cope with system updates" (10).

"constantly oriented toward digital communication content, be that in the form of possible interactions with friends and peers, new posts on social network sites, public information via newsfeeds, or new decisions and moves of co-players in an online game" (57). The push/pull mechanisms of smartphones discussed above reinforce this POPC mindset with a dual-pronged sense of connection in which users are either explicitly or implicitly drawn, repeatedly, to their smartphones. It is the very processes and processings of smartphones in the background of users' lives that cause people to engage in certain processes with their devices. Thus, the fact that users strive to keep their phones charged and close by indicates, perhaps, less of a desire for active connection and more of a fear of being *without* the possibility of connection. I have also shown that both individuals and societies at large have assimilated the logics of connection and the assumption of the "digital default." Because of this default towards smartphone usage and inclusion in all spheres of life, people who lack access to smartphones (and who often also lack access to other technologies) are largely excluded from the workings of general society. Even temporary non-use seems to be associated with negative outcomes for many individuals, for whom a lack of smartphone access may lead to a sense of (social, psychological, or actionable) deficiency.

2.5 Conclusion: The "Split Subject"

What kind of subject is created by the constant, convenient, and multi-modal address of the smartphone? I think the best way to describe it is the **split subject**. The multiple splits I describe below will return throughout the following chapters in more detail; for now, I will lay out the basic qualities of the subjectivity I see emerging as a result of the constant presence of smartphones. First, users are split **between attention and distraction.**[62] Perhaps one of the most obvious ways that this split manifests is the fact that, because users are

[62] Pettman relocates this split slightly when he describes "a dialectical tension between isolation and connection, nestled within the larger one, powered by the torque between distraction and attention" (32). For him, the fluctuations of distraction and attention pull us deeper into the cycle of needing connection and needing to be alone.

constantly being addressed, they are constantly on high alert, constantly flitting between the present moment and the possibility of disruption. When someone is using a smartphone, they are being addressed by messages on various platforms, video ads, banner notifications, vibrations, sounds, and a whole host of other multimodal appeals all begging for (and even requiring) interaction. With the spread of 5G networks and increasingly strong batteries, even being out in the wilderness won't stop the barrage of information and messages. As such, the split smartphone subject is always ready to attend to their device, always ready to flip between the onscreen and offscreen worlds they inhabit, whether due to convenience (such as scanning QR codes at restaurants to access menus) or desire (when brief pauses in the flow of everyday life need filling).

There is also a constant negotiation between users' own thoughts and what they know (or believe) is going on in their devices. Even if the smartphone is shut down and stowed away, the world it connects to is always open—a spectral presence haunting the user. Users are thus also split, mentally if not physically, **between digital and physical locations** that simultaneously demand attention in different locations.[63] Douglas Rushkoff refers to this state as one of "digiphrenia," wherein media and technologies enable users to be in multiple places at the same time. This experience of digiphrenia results, to use Kenneth Gergen's phrasing, in an "absent presence" wherein people are neither fully here nor there but always caught in between, tweeting about a concert even as they forget to sing along, sitting at the dinner table but sending memes to the group chat. Users can share information from the digital realm in person, or vice versa (sharing information from the real world in digital form). Because of the ease and fluidity with which users can traverse these spheres, the two can often clash for users' attention when both physical and digital environments are demanding attention and engagement.

[63] For more on the notion of digital doubling, see Lai-Tze Fan's "Writing While Wandering: Material and Spatial Contingency in Locative Media Narratives."

Smartphones also facilitate a split between (as Laura Mulvey would say) **the first-person gaze and the third person, I-watch-myself-being watched gaze.** I will say more on this in Chapter 4, but for now, consider Vorderer and Klimmt's point that:

> The idea of 'others observing me online' is complementary to the sense of permanent social connection: It implies the perceived pressure or necessity to adhere permanently to expectations and norms held by social network members and to participate in online communication in ways that facilitate positive feedback, acceptance, and acknowledgment by relevant others. (59)

This is to say, even the way people behave when being recorded or photographed has changed since the advent of social media platforms, which signal the potential for these recordings and photographs to have much longer "lives" and much wider viewerships than film or video cameras could enable. The question of online presence (whether self-selected or otherwise) also brings up the issue of the split **between one's self-image and one's desire to project or portray a certain image** for others. Instagram has actually capitalized on this split with its dual-profile function, which permits users to maintain both "Rinsta" ("Real Instagram) and "Finsta" ("Fake Instagram") accounts simultaneously. Indeed, as Jin Kang and Lewen Wei note, "individuals can have multiple selves," all of which may be "governed by social contexts, including ideal-self (i.e., the self that one ideally would like to be), deceptive-self (i.e., the self that one actually is not), impressive-self (i.e., the self that one wishes to impress), actual-self (i.e., the self that one actually is), and exploration-self (i.e., the self that one is exploring)"; Rinstas restrict Instagram users "to presenting a singular identity, while the Finsta may be an outlet to engage in diverse self-expression" (59).[64] It is worth noting here that the constant opportunity to utilize one's smartphone to curate a specific image of oneself causes a more deliberate and attentive attitude towards

[64] As Joseph LaBrie et al. state: "While the name implies that Finstas are "fake," students often report these private, pseudonymous accounts as being a much more authentic representation of their daily lives. This is because students are more willing to include humiliating, negative, vulnerable, and crazy life moments without fear of offense or judgment from friends, family, acquaintances, or potential employers who may follow and view their real accounts" (750). For more on Finstas, see also Xiaoyun Huang and Jessica Vitak.

one's choices in everyday life. One cannot just "live"—one must live in a way that translates well into the online space where most of life now inevitably seems to end up.

People are also being **split off *from* others** in some important ways, even as they become more connected with and entwined in other users' lives. Young users are separated from the "modes of being" and thinking (Harris) of people even just a generation or two older, for whom smartphones arrived later on the scene. Harris notes that digital natives inhabit the world in a dramatically different manner from "digital immigrants" like those born in the 1980s or earlier, who remember a time before the Internet (214). Users of all ages are also split off from those who might be in their physical vicinity but are not in their "Contacts" (and who thus are not able to attain genuine, in-person contact). There is certainly something to be said for the online communities that draw together like-minded individuals who could never have connected before the Internet age. However, there is *also* something to be said for connecting with people in one's immediate environment[65] or even just to one's own self. By drawing users into its aura—even as it eliminates the auras of everything around it, in this age of ultimate mechanical reproduction and reproducibility (Benjamin)—the smartphone actually prevents people from connecting with *themselves* in an offline way. The more constant the presence of the smartphone, the less people have to be alone with themselves, and thus the less they learn to "get along" with themselves (Thoreau, Farman).[66]

As my diagnosis of the split subject conveys, the overall trends in the design of smartphones can encourage and facilitate final outcomes that are quite troubling. It would seem that the end goal of smartphone captology and procedural rhetoric is a society structured around smartphones in which users become increasingly split, pulled in many directions at once by the ever-increasing demands of the digital and physical worlds. This

[65] See Hubert Dreyfus, Hans Gumbrecht on *stimmung*.
[66] It is telling that, in Timothy Wilson et al.'s study from 2014, most participants indicated that they did not like being left alone with their thoughts. Even a period of six to fifteen minutes was described as "difficult" and "unpleasant"—to the point where, in one variation, twelve out of eighteen men and six of twenty-four women chose to give themselves electric shocks rather than be completely alone with their thoughts.

self-sabotage and splitting will be discussed in Chapter 4 in relation to the shifting sense of consequentiality that the smartphone creates through its affordances and constraints. For now, it suffices to say that the smartphone's constant presence has the potential to affect individuals in profound and sometimes deleterious ways—and yet, this potential is overwritten by the sheer ubiquity of the smartphone's presence in modern life. *This paradox is at the heart of the smartphone's persuasive power.*

Chapter 3
Customization

3.1 Chapter Preview

Chapter 3 explores the impact of the customized and customizable address of the smartphone. Throughout this chapter, I alternate between considerations of design decisions made by smartphone companies (the production and distribution stages) and actual user experiences with these design features (the consumption stage). This approach helps to more comprehensively map the ways in which design decisions determine a smartphone's customizing and customizable affordances and features, as well as the ways in which users are anticipated or expected to interact with them. I start with a historical comparison of the possibilities for customization offered by print, broadcast television and radio, and computers. I then discuss how the smartphone's customizable features are particularly persuasive to users on a captological level, exploring the tensions within a customizability that promises both universal and individual satisfaction. I address captological customization in terms of **access** and **interface**, **applications**, and (self-) **representation**. The procedural rhetoric section extrapolates these features into two broader double-logics that operate in contemporary society: the **logic of recognition/integration** and the **logic of control/optimization**. I conclude by positing a new type of subject that emerges with the modern propensity for customization: **the integrated subject**.

3.2 Customization in Historical Media

I would like to begin this historical overview by briefly considering the development of the word "customize," in order to reveal the shift in thinking that accompanied the expansion of the original concept. The term is so common today that it is hard to believe the word is (as of 2024) less than a hundred years old—although the noun "custom" has been in use since the year 1200, when it referred to "habitual practice, either of an individual or a nation or community" (Online Etymology Dictionary). This usage came from *costume,* an Old

French word for "custom, habit, practice; clothes, dress" and originally from Latin's *consuetudinem*[67] ("habit, usage, way, practice, tradition, familiarity"). The adjective form of "custom" in the sense of being "made to measure or order, done or made for individual customers" arose by 1830, likely a sign of increasing ability for people of a wider range of classes to signal and signify their individuality. "Customize," meaning "to make (something) to a customer's specifications," did not come into being until 1934 (and when it did, it was in American English, which is likely worthy of note in itself).

When the term underwent this denominalization,[68] moving from "custom" to "customize," a shift in emphasis came also. According to Collins Dictionary, the suffix "-ize" has several potential means of transforming a noun. It can reform the noun into a verb with the intention: "1. to cause to become, resemble, or agree with; 2. to become; change into; 3. to affect in a specified way; subject to; 4. to act according to some practice." With "custom-ize," the intention to create or tailor something in accordance with an individual or culture's customs is signified. This intention was further emphasized with the 1975 arrival of "customization," which referred to both "a modification made to something to suit a particular individual or task" and "the action of making (something) to a customer's specifications" (Online Etymology Dictionary). As the etymology of the term reveals, what originally referred to material customs centred around practices or habits came to mean the materialization of non-material elements, in the sense that a customer's "specifications" could come not only from physical requirements, but also from personal preferences or quirks.

The following historical section, as in Chapter 2, will offer a brief historical overview of customizability in past communications technologies that aligns with the growth of the term itself. The overview explores the affordances of the particular communications technologies under consideration and how they either constrain or invite

[67] *Consuetudo*, in the nominative form.
[68] When a noun is converted into a verb; also known as "verbing."

user customization (especially through interactivity), as well as what options exist in terms of content and genre (customization through choice). It is important to note here that the contemporary emphasis on customization—and, as I will discuss below, individualization—in all things was not present during the milieus that produced the other communications technologies under consideration. As mass media, uniformity of a message was valued above individualization. This is because, as Manovich writes:

> In industrial mass society everybody was supposed to enjoy the same goods—and to share the same beliefs. This was [the] logic of media technology. A media object was assembled in a media factory (such as a Hollywood studio). Millions of identical copies were produced from a master and distributed to all the citizens. Broadcasting, cinema, print media all followed this logic. (41-42)

In contrast to this logic of mass standardized production, "[i]n a post-industrial society, every citizen can construct her own custom lifestyle and 'select' her ideology from a large (but not infinite) number of choices" (42). That is, "[r]ather than pushing the same objects/information to a mass audience, marketing now tries to target each individual separately" (42).

In this section, I will seek to draw out key considerations regarding the potential customizability of books and broadcast media, two forms of mass media aimed at reaching broad audiences. While my ensuing discussion of the customization potential offered by these earlier media may appear to construe them as limited or limiting, I do not want to suggest that they were inherently deficient for their lack of customizability; they certainly would have seemed very rich and full of opportunities for the societies they were introduced into. My purpose is, rather, to emphasize the drastic changes in communication brought about by computers, programming languages, Web 2.0, and the subsequent advent of smartphones. To briefly note the distinguishing characteristics of Web 2.0: it privileges user engagement and enables user-generated content, increasing information sharing and greater connectedness between users. It emerged in 1999 and is the current state of the Internet as of 2024—although we are now beginning to see a shift to Web 3.0, which is characterized by

“decentralization; trustlessness and permissionlessness; artificial intelligence (AI) and machine learning; and connectivity and ubiquity” (The Investopedia Team).

3.2.1 Early Print Literature

I will first address what early print literature afforded in terms of opportunities for customization, both in the sense of “a modification made to something to suit a particular individual or task” and “the action of making (something) to a customer's specifications” (Online Etymology Dictionary). The first sense I will discuss is in terms of individuals’ abilities to personalize the material they consumed. Opportunities for average readers in the fifteenth century to affect or alter actual text itself did not exist, because of the static nature of print; it was what we would call a non-interactive, analogue medium (a distinction that did not exist at the time, of course). In fact, when books first appeared, they were praised for their *lack* of customizability, in the sense that the accidental “customizations” that happened all the time in scribal culture could be eliminated through the standardization of print (Eisenstein, Loubere). The text was set down and could be reproduced faithfully as long as the type had been cast properly and remained so; the printed page was absolute and replicable *en masse*. The only real agency that readers had to customize such texts would be by defacing the pages (something that was not uncommon, as Scott-Warren discusses in his work on medieval graffiti).

Looking at customization in terms of something being made “to a customer’s specifications,” we can see also that early printed books were very limited in terms of the reading options afforded to users. Lienhard notes that for the first thirty years following the invention of Gutenberg’s press, “improvements in the technology of book making were focused on expanding the capacity for production” (165). This was because printing presses were seen as “moneymaking machines whose purposes remained much the same as Gutenberg had originally conceived them—mass-producing the classical and religious literature in the style of the old manuscripts” (165). Few people could afford to commission books, and so what people read was largely dictated by those above them who *did* have the power to decide what would be put into print. As such, early readers of print literature often

did not have a great deal of choice over what they might read. This was especially the case for the non-literate public, whose exposure to written texts would have been almost explicitly limited to the bible—or, at any rate, to whatever was being read *to* them rather than what they might have wished to hear. As literacy became more widespread and more presses were built, the options for what to read increased, thus increasing the choice that average readers would have in the content they could consume.[69]

3.2.2 Broadcast Television

Similarly, early television did not offer users much in the way of modification of contents or of content choice. Being a non-interactive medium, broadcast television, like radio, limited users' customization to adjusting the channel or volume. In terms of choice of content—customization in the sense of individual selection from a range of options—there were initially very few options to choose from. In the late 1930s, when televisions were first sold commercially, only two companies were producing broadcasts: RCA (NBC in the United States) and CBS. In the early 1940s NBC branched out into ABC; the three networks maintained a monopoly throughout 1950–1960s.[70] Mitchell Stephens tells us that:

> The force that would challenge the dominance of the three major television networks and offer Americans the choice of dozens and potentially hundreds of television channels—cable TV—began quietly in a few geographically isolated towns. Large antennas erected in high places gave everyone connected the chance to receive all the channels available in the nearest city. (n.p.)

The United States had around 640 CATV (Community Antenna Television) systems by 1960. The addition of the Public Broadcasting System (PBS) stations throughout the USA in 1967 and further expansion of cable television in the early 1970s (with the likes of HBO, WTBS, and ESPN) greatly increased the variety of material available for viewers—and

[69] The emergence of pamphlets with samples of many different texts also expedited this process, as Lienhard explains (149).

[70] Stephens explains that "these [monopoly] networks purchased time to broadcast their programs from about 200 affiliates each—stations in each of the major cities or metropolitan areas of the United States. In the larger cities, there might also be a few independent stations (mostly playing reruns of old network shows) and perhaps a fledgling public broadcasting channel." (n.p.).

therefore increased opportunities for individuals to customize their television-watching experience with particular programs, news anchors, or location-specific stations.

As this brief discussion of television's expansion shows, broadcast television, much like print literature, became more "customizable" as it grew in popularity and was able to offer users greater choice through more channels and networks that were available to broader viewer bases. And, like print literature, broadcast television contributed to the diversification of perspectives and options, especially as more channels became publicly available.[71] This is because, despite still being a form of "mass" communication by definition, broadcast telecommunications still tailored perspectives and content to specific locations, featuring both local and national news. This is in many ways similar to the development of the book: at first the medium was used to amplify a very small number of voices and perspectives, but as the general population became more interested in (and likely recognized the power of) the new medium, it became more diversified and popularized. These factors moved towards a lessening of mass audiences and an increase in more specialized audiences based, for example, on locality or age. This shift offered individuals greater choice in what and who to watch, as well as in which audiences to identify with over others.[72] However, this greater diversity also meant that the more channels there were on a television set (just as the more printed materials there were in circulation), the less each was able to claim uncontested truth. For example, viewers could switch from one news channel to another, and although both might be covering the same event, the action could be conveyed in very different terms. And thus, with the proliferation of information sources came the rising sentiment that information was not simply information—instead, it had to be tailored for specific delivery to specific audiences.

---

[71] For a fascinating look at the development of broadcast television that draws on Williams' concept of "mobile privatization," see Chapter 4 of Jeremy Packer et al.'s *The Prison House of the Circuit*.

[72] The rise of niche marketing and the categorization of citizens into different types of consumers who "needed" different things was also an important factor, and one that will be discussed later on in my discussion of the logic of recognition.

3.2.3 Digital Communications Technologies

Smartphones and computers are the most highly customizable communications technologies to date, both in terms of individual control over content creation and in terms of what content is delivered and how.[73] With the advent of successive digital and computational technologies, customization can now take effect at more stages of the production process through what Stan Davis in *Future Perfect* coined "mass customization." This is computer-aided customization that allows for users to participate in the customization process, whether prior to manufacturing ("collaborative customization"), in the hands of the users themselves ("adaptive customization"), by making selections between different offerings of a product ("cosmetic customization") or by selecting products based on their unique suitability ("transparent customization") (Pine). The fact that there are now multiple ways of creating and receiving customized products signals to users that they have the power, both economic and agential, to exert control over their tools (although as scholars such as Manovich and Chun have pointed out, this power is largely an illusion; see below for more).

Looking at adaptive customization, or interactive customization, a key aspect of computers according to Murray is that they are participatory—that is, they operate through *interactivity*.[74] As Murray states: "[Digital] environments are appealing to us not just because they exhibit rule-generated behavior [procedurality] but because we can induce the behavior. They are responsive to our input" (90). In fact, "the primary representational property of the computer is the *codified rendering of responsive behaviors*" (90, emphasis added). Because of this unique combination of participatory interactivity and procedurality (which refers to the fact that computers operate by executing a series of rules), computers differ from "static" communications technologies wherein the same content is present

[73] Speaking of the "just in time" delivery logic that computers and computer networks make possible, Manovich says that: "The idea that a customer determines the exact features of her car at the showroom, the data is then transmitted to the factory, and hours later the new car is delivered, remains a dream, but in the case of computer media, it is reality" (37).
[74] Or what Tara McPherson calls "volitional mobility": "a feeling of choice, structuring a mobilized liveness which we come to feel we invoke and impact, in the instant, in the click, reload" (202).

regardless of the user. Instead, computers can be utilized for many different purposes based on how the user engages with the interface to complete various tasks or assignments (unless, of course, the computer is already programmed by code to carry out only specific procedures). In other words, unlike all previous mass communications technologies, computers enable real-time interaction, modification, response, and engagement with onscreen content. For example, unlike television, "which parades its presence before us, the Web structures a sense of causality in relation to liveness, a liveness which we navigate and move through, often structuring a feeling that our own desire drives the movement" (McPherson 202).[75] Computers are thus geared towards user interaction in a unique and unprecedented way, because customizability is not merely a biproduct of the computer or smartphone's development, but rather a key means by which the devices are operated (or "navigated," as Tara McPherson points out).

This customizability and customization can occur both through "closed" ("branching") interactivity in which "the user plays an active role in determining the order in which the already generated elements are accessed," or "open" interactivity, wherein "both the elements and the structure of the whole object are either modified or generated on the fly in response to user's interaction with a program" (which can be achieved using computer programming, AI, or neural networks) (Manovich 40). Although the latter is reserved for folks familiar with programming and computing, the former is accessible by computer users of all levels. Every time a user goes to their desktop (or home screen) and selects folders or files to work from, they are participating in branching interactivity, because they are deciding the order of access and the end point of their route. A similar process of selection can be seen in how a user navigates through various webpages and searches, wherein there is a set of preprogrammed responses that the user will choose from. In this sense, we can think

[75] Similarly, Joshua Reeves writes: "[T]he flow of online HCI [human-computer interaction] is uniquely rhetorical in that, unlike broadcast television, it must engage the cognitive and physical energies of users in order to capture them in a cyclical, procedural flow of text consumption" (318).

of computers for the average user as long, branching chains of fixed elements that can be navigated through different routes.

In Chapter 2, I discussed the impact of the convergence of many different forms of media into one device. This convergence factor has also been a major accelerator of the smartphone's customizability. The ease of accessing content, which was very limited for readers of printed books and still often challenging for TV viewers, is very high for digital device users. These users can watch, rewatch, record, download, store, or save (in some form or other) media of any kind at almost any time, given they have a connection and enough bandwidth and storage. Users thus have a great deal of control over what content they access through their smartphones, as well as when and how they do it. We can think of this as customization of content in the sense of *choice*—users have nearly endless choices for what, where, when, and how they will consume media. No two users experience their smartphone in the same way, and thus each person gets a totally unique experience of navigating and interacting with it and the content it conveys.

A second note about customizability in terms of choice in content is that the information conveyed by digital communications technologies is (or appears to be) customized to users as individuals. When users read a printed book, they can assume that they are encountering it in exactly the same way as all other people who have ever looked at that copy of the text, maybe even for hundreds of years. When watching television, users can assume that there are many, many other people having a similar experience to them, because the interface is used and experienced in the same way. With smartphones and computers, however, the messages that users receive on their screens are often made *for them* (as with text messages), or at least for people assumed to be very much like them (as with advertisements). Though websites could still be considered to be "broadcasted," computer technology enables narrowcasting, targeted marketing, and personalization. Furthermore, the content of a smartphone's messages to a user changes in real time in response to how the user is interacting with it. This, curiously, mimics direct human conversation more than it

does any other communications technology—part of the reason why, I will argue later on, people come to form affective relationships with their smartphones.

This wealth of possibilities with computer media was not always the case. Rheingold reminds us that:

> Thirty years ago [in the mid-1950s], the overwhelming majority of the people who designed, manufactured, programmed, and used computers subscribed to a single idea about the proper (and possible) place of computers in society: 'computers are mysterious devices meant to be used in mathematical calculations.' Period. Computer technology was believed to be too fragile, valuable, and complicated for nonspecialists. (14)

Similarly, analogue telephones were a complete and independent technology that featured in over ninety percent of American homes in 2004 (Richter). The idea of each individual having their own phone was not on the radar, not because of how complicated telephones were, but simply because of the logistical challenges and the lack of good reason for everyone to "need" their own phone. And yet, in a very short span of time, phones have gone from hanging on the walls of family homes to nestling in users' pockets.[76] As they have gotten closer to users' bodies, they have also gotten closer to users personally, through the customizations and personalizations they can be utilized for. This customizability is the result of iterative processes throughout the cradle stage of mobile phones. Jane Vincent and Leslie Haddon cite some early examples of customizations that "later became more standard mobile phone options": "teenage girls painting the back of phones in Finland led to coloured devices and decorated handset covers," and "personalized ring tones that in the early days of mobile phones were downloaded from a music library at Nokia HQ bespoke for each customer" (36). These early examples show how users, as device owners, wanted to feel a sense of ownership or personalization with their devices—something that they couldn't so easily do with landline phones or computers.

[76] As of 2022, less than thirty percent of American homes had a landline (Richter).

A key takeaway here, then, is that smartphones are customizable and highly modular because they are designed to be owned and used by *one* individual only. The sense of ownership that emerges from this dynamic is important. As Russell Belk, who coined the concept "self-extension," tells Dan Greene of *Vox*: "When we own something, it becomes us. We've imprinted on it" (n.p.). Therefore, customizing a possession is a way of "saying that it's ours… making it *uniquely* ours, rather than a generic, fungible object that could be replaced by another" (n.p.). Elsewhere, Belk argues that "we regard our possessions as parts of ourselves" (139); what, then, does it mean to integrate a smartphone into oneself, to understand it as component of what makes someone who they are? Certainly, the customizability factor makes smartphones appear even more like extensions (McLuhan) of the user. The feeling of loss or invisibility, of *deficiency*, that engulfs someone who has lost or left their smartphone elsewhere is a testament to the extent to which this device is intertwined with users' very foundations of selfhood (Hoffner et al.). As such, losing one's phone, or even just having it die, can be a highly aversive experience. Looking at some studies conducted outside of North America, Neelima Sharma et al.'s survey on Indian medical students who were deprived of their phones discovered that eighty-three percent of students "reported that they had already experienced panic attacks because they had misplaced their smartphones," and sixty-one percent of the 130 students experienced "effects such as headaches and sluggishness" (2). Similarly, Melina Coenen and Yvonne Görlich's survey on German subjects found that people who undergo the experience of "nomophobia" ("No Mobile Phone Phobia") can experience "loneliness, depression, distraction, and decreased impulse control" (2). I will discuss the repercussions of these findings further in Chapter 4 on consequentiality, but for now I want to simply highlight the impact that personal ownership has on a user's perception of their smartphone.

It is important to flag here that the potential for customization (of content, delivery, and everyday life) will soon be even greater in this dawning age of machine learning, thanks to algorithms, generative and intuitive AI, and large language models (LLMs), which promise to free users' minds from the mundanity of generative thinking, planning, and

scheduling so that we may focus on the "bigger picture." While customization already happens[77] behind the scenes and screens through algorithmic tracing on popular platforms (which can track how long users look at specific parts of the screen or what they click on, for example), I predict that this customization will be further accelerated and intensified in the not-too-distant-future as a result of increasing integration of AI into a variety of computational systems. Customization, then, may rely not on users' conscious specifications or concrete actions (such as click and scroll time), but actually *shape* these specifications and actions by making adaptions or alterations that users remain unaware of. For example, the words users read in onscreen ads could be tailored specifically to their reading preferences, intellectual abilities (real or perceived), age, geographical location, and many other factors. Such a development might contribute to the growth of echo chambers or to the creation of increasingly solipsistic subjects whose relationship to the "outside" world grows more tenuous as the personalization of messages increases. While an examination of this nascent possibility is outside of the scope of my dissertation, it is nonetheless an important extension of customization to consider going forward.

3.2.4 Conclusion

Customization of information for audiences has always been a preoccupation for human beings. As the writing of Aristotle demonstrates, rhetoric began as an attempt to employ the three appeals effectively, whether to defend, praise, or persuade—to *customize* a message for its audience (although this claim may be anachronistic, since the term did not yet exist). The development of mass media did not change this desire, but made it more possible for a single utterance to have a far wider reach than individual speeches or official decrees. This first meant standardizing the message and concretizing it in printed form. Radio and television brought back an immediacy that had been lost in print, allowing for voices and

[77] And is, indeed, something that Manovich had identified as early as 2001: "The information about the user can be used by a computer program to automatically customize the media composition as well as to create the elements themselves. Examples: Web sites use the information about the type of hardware and browser or user's network address to automatically customize the site which the user will see" (57).

faces to appear once more before their audiences. Both were first low in customization, but expanded as demand and interest grew. Computers did not have this *telos* initially, but the affordances for communication they offered, and the vast scope of this potential communication, were too great to ignore.

The smartphone is specifically designed to capitalize on the communicative affordances of computers and enable them to "go mobile" ("The Apparatgeist Calls"). As a mobile telephone, it promised to offer instant connection and communication; the array of apps and other features that were soon developed to bolster its capabilities made it further customizable and personalized for individuals' use. These ever- (and still-) increasing means of customization have served to further integrate smartphones into users' lives and experiences of daily life. Such a development was by no means unavoidable or predetermined; in hindsight things fall far more neatly into place than during the messy mire of development. And yet, now, it is hard to imagine a world without customizable and constantly available communications technologies (especially in the West). The next two sections will examine how North American society currently engages with these technologies by examining the smartphone's customizability from both a captological and procedural rhetorical perspective.

3.3 Captology and Customization

With ample opportunities for personal optimization through interactive, strategic configuration,[78] the smartphone offers users a space formulated around what *they*, specifically, have chosen: their apps, their contacts, their photos, their memories. This, as we know from the previous section, is quite novel. The text in books is impossible to change once printed (apart from markups or other additions which may obscure or gloss, but cannot literally change, the text itself); the customization of television and broadcast radio is limited

[78] Thorhauge defines strategic configuration as "the deliberate setup of the phone in order to manage the character and amount of information that appears on the phone throughout the day" (68).

to changing channels. The smartphone offers many possibilities for personalization, both in terms of what to use it for *and* how it will respond to and engage with users. This results in users gaining access to flows of content that feel entirely personalized: text conversations, curated social media feeds, advertisements specifically based on users' search histories, and thousands of apps available for download—although, of course, this personalization is in many ways merely a veneer painted over a substratum of standardization, in terms of both aesthetics and behaviour (Adorno and Horkheimer's concept of the culture industry still rings true, in this sense).

While there is, as I will discuss below, a limit to the potential for customization (given that "customization" in these cases generally refers to a large but still limited number of preset options, as Manovich, Chun, and others have noted), users do have enough control that it is enticing and empowering to use their smartphones. The more people personalize their smartphones, the more the devices become "extensions" of them as users (McLuhan), reflecting back their preferences, both physical (sounds, haptics, colour schemes) and emotional (particular apps, wallpaper photos, passcodes). People can even personalize the literal way in which their smartphones *signal an address to them*. Consider the robust selection of notification settings: users get to decide how a message will show up on the lock screen, if it will be accompanied by a vibration or chime, or if any notification will come up at all (as with "Do Not Disturb" or "Silence Notifications" options). No previous technology offered this potential for personalization and customization, which turns out to be a key factor in the smartphone's persuasiveness. Captologically, such a vast array of options signals to users that they can use and rely on their phones for many different purposes, from work to purchasing goods to entertainment after a long day. In this sense, smartphones are persuasive simply because they offer *so much,* both in terms of choosing what apps users put on their phones and the modification of the ways in which those apps look and behave.

However, I want to break this element down further by first identifying the customizable components that make the smartphone's address so persuasive and then determining how and why they work. The first component is that the smartphone enables

and encourages users to customize its user interface and experience (physical identification, visual arrangement, audial signalling)—in other words, to customize how it addresses users, both visually and audially. The second is that the smartphone enables users to customize their experience of daily life through the selection of specific apps, creating an address that is tuned to their unique priorities, pastimes, and goals. Lastly, the smartphone also invites users to customize *themselves*. Users can do this by a) choosing from a range of options for capturing and quantifying themselves, b) customizing avatars and other online versions of themselves (i.e., with filters), and c) making purchases that customize and optimize their lives.

3.3.1 User Experience and Interface

Let us begin by looking at the captological elements of persuasion built into a phone's functionalities. This involves examining how a smartphone appears to "know" users as individuals from the second they pick it up. Smartphones are now customized to users' fingerprints and facial structure; they register an individual *physically,* through touch and visual cues.[79] This recognition and response to who someone *is* creates a literal connection and bond between user and smartphone, because the device relies on the unique features of the individual to initiate engagement. Smartphones appear to open up only for "their" person, and this is, captologically, very enticing. With such privacy safeguards built into smartphones, users are supposed to trust that the contents of their devices remain secure and

[79] While this capability might initially appear as something made possible only through the advances of modern technology, Farman makes an interesting comparison with wax seals from medieval Europe, which had the similar purpose of identifying and verifying ownership of a written document: "Marks of the body are common on seals, though only sometimes were they intentionally included as a marker of the person who sent the sealed document. A medieval rhyme about William the Conqueror claims that he sealed his documents using his teeth (his "fang Tothe," to be precise) instead of a seal matrix" (149). Farman says that these marks, "whether intentional or incidental, capture the essence of what a seal was meant to symbolize: the presence at the document of the body of the person sending a message" (149). As Farman's discussion indicates, concerns over sending and receiving messages securely and privately has been a concern as long as people have been communicating in absentia.

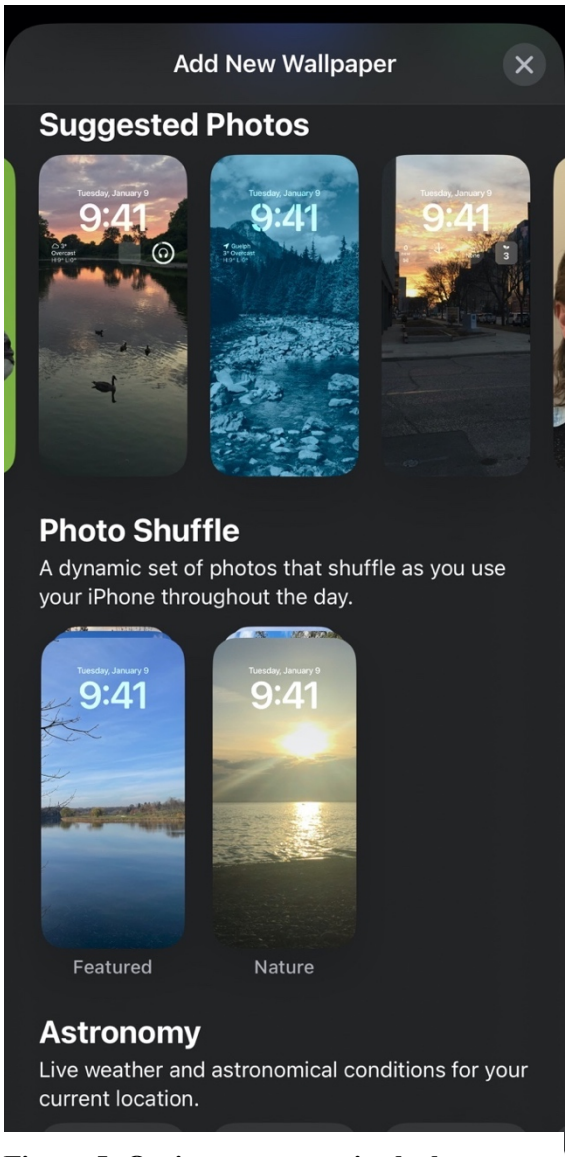

Figure 5: Options to customize lock screen

secret. However, as data leaks, hackings,[80] and Apple's 2017 Face ID controversy[81] clearly indicate, this idea of private information is largely an illusion. Furthermore, this perception of private, individual access is actually predicated on a *relinquishment* of privacy—most notably in the surrender of fingerprints and facial features to corporations like Apple (as Lori Emerson, Teena Carnegie, Cooley, and Greenfield have noted). However, regardless of how these mechanisms are enabled and the potential costs of such a convenience, many users, especially in younger generations, do choose to make use of these features.[82]

There are also many other ways of visually signalling ownership of a smartphone: distinctive phone cases, passcode prompts, and personalized lock screens are all immediate signifiers of *mine/not-mine*. The lock screen image is usually selected for its affective impact for

[80] Such as Suprema's 2019 data breach which compromised more than twenty-eight million records of biometric data.
[81] In 2017, multiple cases were reported of iPhones unlocking for non-white users of the same race. An article from *The Mirror* in December 2017 highlighted several reports where Chinese users' iPhones were able to be opened and used by other individuals (Curtis).
[82] According to a 2022 survey conducted by CyberLink and YouGov on 2,455 Americans aged eighteen and over: "68% of respondents use facial recognition to unlock their smartphone, laptop or other personal devices, while 51% apply it to log in to a phone app. Of these people, 18-to-24-year-olds (popularly referred to as the 'Gen Z' age group) and up to 34-year-olds ('millennials') are the biggest user group by age – three-quarters (75%) of them regularly unlock their devices using facial recognition"(Devanesan n.p.).

the user; it may be a photo of family members or a partner, a nature scene, or even just one of the preset options, but it is one that the user has intentionally selected as "theirs." With the newest iPhones, it is even possible to have carousels of home screen photos—since who can pick just one?—that will circulate each time the user "wakes" their device (see Figure 5). The ability to customize this lock screen image is important. Greeting users with their selected images that have sentimental value is a key way that the smartphone "appeals" to users and begins each interaction with feelings of positivity.[83]

The next line of engagement is the notifications that appear onscreen, which can be fine-tuned both in terms of *what* appears and *how* it appears. It is technically entirely within the user's control to permit when, if, how, and by whom they can be reached (an affordance that all media have, in some capacity, whether that's burning unwanted letters or changing television channels). For example, users can place their devices in "Do Not Disturb" mode, which means that no notifications will appear on the lock screen

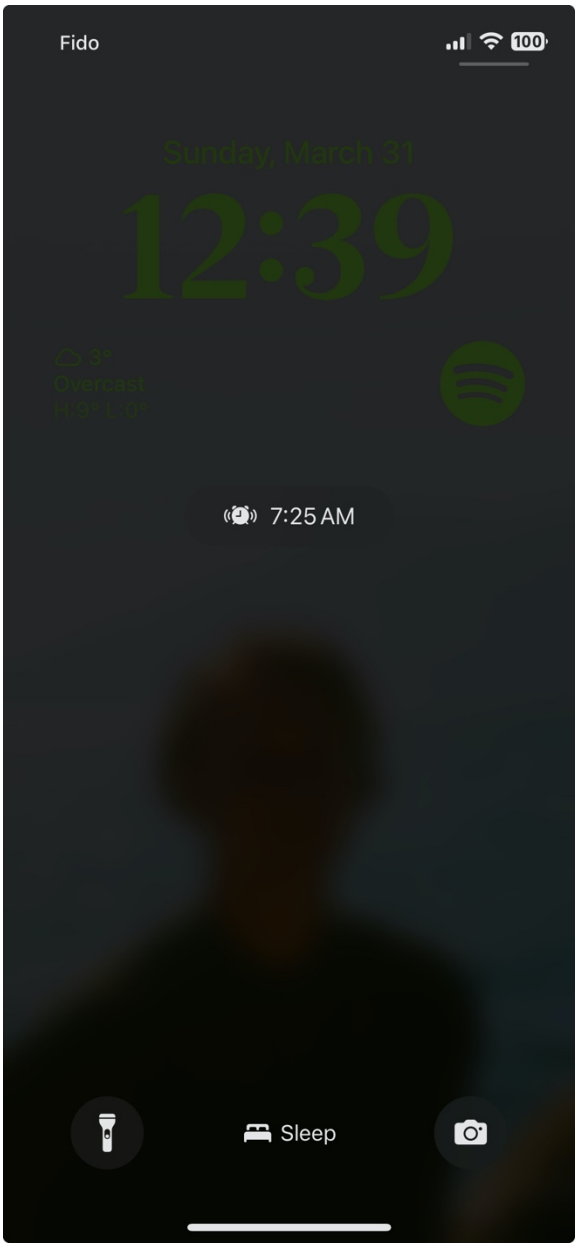

Figure 6: "Sleep" mode, a variation of the "Do Not Disturb" lock screen

[83] For an expansive review of the different lock screen options permitted by iOS 16, see Tara Purswani.

(see Figure 6).[84] Smartphone users can also choose which specific apps to allow notifications from, meaning that all text messages will appear, but Instagram notifications will not. Users can further choose how much of the content of messages will come through: images can be shown or hidden, as can the wording of text messages or comments. These options allow the user to modulate and moderate the content that is available for them and potentially for others to view, should someone else be within eyesight of the screen. The ability to maintain privacy or prevent distraction through this customization of notification settings is very appealing because it again gives the impression that the user's smartphone is their private domain, that there is an inner world that only the user has access to.

This conversation on notifications applies also to the audial signals that users choose for their phones. There is a myriad of options (although much fewer than in the days of recorded ringtones) from which to choose. For most users, the type of address is dependent on their typical daily setting and their relationship to the people who contact them. Users who have loud ringtones indicate that, despite their physical location, their ability to hear and respond to incoming calls is primary. Users who tend to keep their phones on "Silent" or "Airplane Mode" signal that their physical environment is one where audial interruptions are not welcome and would be unappreciated by others in the immediate space. How and when the smartphone makes its appeal is thus (at least supposedly) a reflection of its relative importance in the user's current setting or context.

Once the user has admired their lock screen and unlocked their phone by face, fingerprint, or passcode, they are generally confronted by the home screen (although in recent models Apple has moved away from this, suggesting that "the smartphone experience is just too fast and fluid to be pinned to a grid" [Vanhemert n.p.]). It is telling that this landing spot is called thus; the phrase "home screen" indicates a place of comfort, stability, and security. Stefan Werning writes that "the customization of a smartphone home screen

[84] This selective access has been possible with telephones from the start; Christian Licoppe notes that in early-twentieth-century France, aristocrats would send their servants to answer and screen incoming telephone calls ("Ring" 139). The key difference: now the smartphone screens itself according to the dictates of the user.

and its assessment in aesthetic terms is comparable [to] historical practices of designing and photographing one's home, through which 'families can produce representations of themselves'" (155). When users select, arrange, and use the apps that populate their home screens, these acts of "deliberate use and [customization] exhibit a hierarchy of 'consumer knowledge' which includes the expression of attributes, consequences, and ultimately values" (155). The smartphone's home screen is thus designed to serve as its user's domain, in the literal sense of *dwelling place*—the place from which all other onscreen activities begin and end.

It is, however, an interesting point of note that more recent iPhone models and iOS's are beginning to circumvent the home screen by having lock screen shortcuts that take the user directly to specific apps, such as Spotify music or the camera. In his 2015 *Wired* article "Apple is Going to Kill the Home screen," Kyle Vanhemert declares that "we're no longer homebodies" (a well-executed play on words regarding Apple's move away from the home screen). Instead, he says, users are seeing more and more apps have their "functionality extracted and repackaged and sprinkled throughout the phone's interface" (n.p.) This is, Vanhemert argues, causing some apps to "soften and dissolve," especially as voice assistants and search tools become increasingly capable of intuiting and acting on users' wishes (n.p.). This shift will be discussed more fully in the section on procedural rhetoric, but I want to flag here that speed of access is being privileged more and more, something that my earlier discussion of convenience conveys.

Lastly, smartphones now offer a huge range of customizable options for accessibility. This is certainly beneficial in the sense that users whose needs diverge from those of "typical users" receive a more intuitive and functional experience with their devices—in other words, they can be hooked "just like anyone else." Some examples of this, as noted on Apple's website (as of 2024), include Assistive Access and Guided Access modes, Live Captions, Door Detection, Voice Control, and Reachability. By making smartphones more accessible and equitable (which again, in theory, is a *good* thing) manufacturers also further ensnare more and more users by integrating their specifications into the basic format of the

device. There is still, of course, a default which "assumes" certain visual, audial, and dexterity capabilities, as Cooley discusses in *Finding Augusta,* but this default is largely invisibilized and thus entrenched all the more within technological design.

3.3.2 "There's an App for That": Appealing Apps

Let us now examine the customization of daily life that is made possible by the apps users populate their phones with. Although certain apps have gained widespread popularity to the point of ubiquity (most notably social media apps), there are myriad others—over seven million, in fact—that are tailored to a range of different lifestyles, habits, goals, and preferences. Recall Fogg's notion of "the Functional Triad," which states that computers serve three key functions for users: tools, media, and social actors. Many apps serve one, two, or all three of these functions, which increases their persuasive power in the lives of users.[85] For example, the FitBit Premium app serves as a tool for recording and tracking fitness stats, a hub of exercise videos, and a "coach" that can help users set and achieve workout goals.

Having the freedom to choose the metrics by which a day will be measured (steps? Likes? XP? levels?) helps users to carve out unique routines that revolve around things that matter to them, or that reflect their specific values.[86] Not all users might download apps in such a self-conscious manner as this, but these decisions have an impact, regardless of the fullness of intent. For example, a teenager who downloads all the same social media and gaming apps as their peers indicate values of belonging, social time, competition, and skill-boosting. A woman in her thirties who downloads FitBit Premium, Bumble for Friends, and Nibble may also share the values of belonging, social time, competition, and skill-boosting, although the means and metrics of achieving these values differ significantly.

---

[85] Furthermore, as Fogg points out, "When you deal with human persuaders, you can stop the persuasion process and ask for clarification, you can argue, debate, and negotiate. By contrast, when you interact with computing technology, the technology ultimately controls how the interaction unfolds" (216). The choices are limited by the computer's options, which, although vast, are nonetheless limited

[86] Within the context of Value Sensitive Design, Batya Friedman calls a value that which "is important to people in their lives, with a focus on ethics and morality" (24).

The proliferation of apps is the literalization of the phrase "to each their own." No matter what users enjoy doing or what they want to measure or track, "there's an app for that" (a phrase from a 2009 App Store commercial that Apple actually trademarked). The main thing that all apps share is the goal of people actually *using* them (naturally)—and in the process of using them, to give time, information, or other data to the apps' designers or corporate sponsors. While I am not trying to suggest that all apps are created with ulterior motives (and I acknowledge that there are many apps that are objectively beneficial and helpful for users), I do want to highlight the trends that many apps promote or permit, such as the datafication of users, enforcement of particular (and deceptive) usage patterns, and a capitalistic, exchange-centred dynamic.

3.3.3 Self-Customization Through Smartphones

A final aspect of captological customization that the smartphone affords users is that of *self*-customization. That is, the smartphone constantly prompts users to make decisions that externalize or quantify their likes, dislikes, habits, and goals. Users thus participate in the construction of a composite user profile. This self-conscious construction of likes and dislikes is an important aspect of the smartphone's rhetorical efficacy. As Sara Ahmed explains in "Happy Objects": "to be affected by something is to evaluate that thing. Evaluations are expressed in how bodies turn towards things… Some things you might say capture our attention" (31). Ahmed's description of this turning towards objects echoes Muckelbauer's description of how even inert matter has the ability to affect a "turning," and thus exert influence, even without conscious effort (40). Smartphones, which are designed to capture (and hold) users' attention, become "objects that give us pleasure," and so they begin to "take up residence within our bodily horizon. We come to have our likes, which might even begin to establish *what we are like*. The bodily horizon could be redescribed as a horizon of likes" (Ahmed 32). Once users have established their "horizon of likes" and come to associate their smartphones with this horizon, the phones can themselves begin to "cause feeling… [which] quickly converts into what we could call an *anticipatory causality*," which is where "we anticipate that happiness will follow proximity to this or that object" (40-41).

The more users engage with their smartphones, the more smartphones thus become companions that seem to "know" users intimately, or that even appear as reflections of users, rather than as inanimate devices made of silicon and metal. In other words, the more a smartphone is personalized to its user, reflecting back their values, preferences, and habits, the more persuasive it is to engage with.

Beyond the quantification of the self through customizable apps and software, smartphones also offer quick and easy means of customizing how users appear in both the digital and real worlds. Customization in the digital world occurs in many ways; two notable examples are creating avatars and taking and posting photos. Avatar creation is now a key feature offered by Apple; with the iOS 12 update in 2018, users are invited to create a "Memoji" that looks like them (or not) that can be used instead of more generic emojis in text messages or on Facebook as "stickers." Each Memoji has fifty-four unique poses and expressions to choose from, some of which are shown in Figure 7. The invitation for people to create a literal reflection of themselves in and on their smartphones once again signals a mirroring process by which the smartphone becomes more *personable* to interact with. With regards to taking and posting photos, smartphones enable visual self-customization through a plethora of filters available on apps

Figure 7: Some Memoji options in iMessage

such as Instagram and Snapchat. These filters mimic the early days of webcam funhouse effects, the likes of which my friends and I were captivated by in high school.[87] However, the difference with many of these filters is that they seek to bend reality by presenting the user not as a blatantly altered caricature, but as a slightly different (and often "optimized") version of themselves. There is no lag, as with taking a photo and editing it; rather, the filter works directly with the camera function and shows the filtered individual in real time. These opportunities for self-customization play on insecurities and desires for certain features (although there are many filters that are intentionally geared for humorous or experimental results). Similar to the Memoji, app filters offer users an opportunity to create a "looking-glass self" (Julie Jones) or idealized version of themselves—a version that the user may perceive as being in some way superior to their own, unfiltered self.

The smartphone supports many other apps that encourage users to go beyond these individual instances of filtering and customization to further customize their appearances through the curation of particular online personas with "aesthetics" or "brands."[88] Drawing from Erving Goffman's sociological theory of identity, Zizi Papacharissi asserts that "users create a 'face' for each interaction and develop 'faces' for a variety of situational contexts" in performances that are thence "enabled by a performative palette that combines multimedia elements with cultural references, elements of play, denotative and connotative expression, and a variety of tools" (97). This "performative palette" is, for Goffman, the "'setting' for the presentation of the self"—in other words, for "'the furniture, decor, physical layout and other background items which supply the scenery and stage props, with which the individuals articulate the 'front,' or a general introductory performance of the self, as opposed to the 'backstage,' where a more authentic self resides" (97). The smartphone enables users to customize how they will appear to the (online) world by allowing "access to a variety of multimedia tools that enable the possibility for more controlled and more imaginative performances of identity online" (Papacharissi 307). For smartphone users, the

[87] As my 2009 Facebook album entitled "webcam funnnn XD" can attest.
[88] See, for example, articles by Maria Schreiber, Jennifer Whitmer, and Manovich (on Instagram as a life form).

"performative palette" might consist of various social media profiles (each of which displays a different version of the individual via curated visual or written self-expression, which may be short or long, formal or informal, earnest or satirical, intertextual or standalone), visual content (such as camera angles, filters, etc.), particular aims, hobbies, or interests that one declares either outright or by nature of association ("mommyblogging," Facebook groups, the "manosphere," etc.). All of these elements produce the setting, which in turn produces meaning around the individual "performer" as they create and customize their online self. The constant presence of smartphones means that users can constantly add to and accrete online personas with ease—a series of snaps, an Instagram story, an impromptu TikTok video, or even a well-timed GIF in the group chat, all help to construct and maintain the digital self.

Furthermore, smartphones and social networking sites also allow users to constantly purchase the "furniture, decor, [and] other background items which supply the scenery and stage props" of their performance: the clothing, experiences, products and other aspects that "set the stage" for their performances on any given platform or online space. In this way, self-customization through smartphones also has a very material aspect, because it is positioned as something that can be (ostensibly) concretized through the purchase, display, and use of particular brands or types of products.[89] Perhaps it is not so surprising, then, that smartphones also constantly address users with opportunities to self-optimize through the plethora of products and services advertised on many of the applications users download. While the basic features such as text messaging, the camera, and the calendar are ad-free, all of the major search and social media apps now feature heavy advertising (to make up for "free" usership). In this way, the smartphone constantly addresses users as consumers, asking them to consider making purchases that are particularly timed and tuned to them as

[89] As Joshua Reeves notes: "On the Web 'the possible' that is conjured is often a possible self, one with a new pair of shoes, whiter teeth, faster Internet service, or a cheaper car insurance bill. But the problem of advertising, of course, is only one (especially visible) aspect of the larger issue at hand: that our online audiencing is rhetorically governed to encourage participation" (326).

individuals. Furthermore, the ease with which these purchases can be validated by online sharing means that users are constantly being exposed to others' choices, too.

This point on validation gestures towards the social aspect of this type of self-customization through smartphones. As Papacharissi explains, in the digital era "[t]he process of self-presentation becomes an ever-evolving cycle through which individual identity is presented, compared, adjusted, or defended against a constellation of social, cultural, economic, or political realities" (304). boyd, also drawing on Goffman in her work on internet identities, notes his assertion that "people work together to shape impressions, often relying on shared familiarity to help define any given situation in a mutually agreeable manner" (qtd. on 9). Goffman's assertion has been corroborated by many other recent studies connecting social identity to patterns of consumption. As Jordan Eschler and Amanda Menking note in their article on starter pack memes and stereotypes, "in a post-industrial society, consumer goods can signal group membership (e.g., social identity) all by themselves" (6); similarly, Tally Katz-Gerro claims that "[s]ocial stratification in post-industrial society is moving into a culturalist phase based on subscription to distinctive lifestyles and tribe-like configurations built on cultural consumption" (23). Essentially, self-customization is often very much entwined with users' patterns of production and consumption because these signs are, by their branded or iconic nature, easy to identify with or against.

3.3.4 Datafication and Unintentional Customization

The conversation above has so far discussed intentional means of customization; I now want to turn to the other side of the coin and examine the *unintentional* customization that results from users' experiences and interactions with their smartphones. As many scholars including Shoshana Zuboff, Aschoff, Manovich, and Armen Khatchatourov have flagged, the ability to personalize or customize smartphones is an active means of getting users to share more data. Increasing levels of customization focus on fine tuning user preferences, histories, and digital aesthetics—essentially rendering certain aspects of the individual as something that

can be quantified, datafied, recorded, and duplicated.[90] The more time people spend on their devices, carefully customizing and optimizing to their "unique" specifications, the more data they create on their habits, preferences, and histories. Online customized addresses are often enabled by other choices and options users have selected in different online or onscreen spaces, which makes them even more persuasive. The advertised products users see and investigate spawn more related advertisements for products which users then begin to see more of in the real world, too (which Caroline Forsey of Hubspot attributes to the Baader-Meinhof Phenomenon, also known as the frequency illusion[91]). This creates a feedback loop, where a user's likes, dislikes, and habits inform the way in which they are addressed, which in turn (re)shapes their likes, dislikes, and habits (using what Nick Seaver calls "captivation metrics").

What is constructed in the aggregate of all this collecting is a digital identity created by the data and traces that they leave all across the Internet.[92] Some of it is voluntary, given in trade for convenient access, such as the practice of providing fingerprints and facial features to unlock phone screens, or of allowing cookies to track searches and website visits. However, there is also plenty of data that users do not consent to that is gathered from them.[93] Robert Logan's provocative reversal of Marshall McLuhan's idea of media as "extensions of man," suggests that human beings are now extensions of digital media even as these media are extensions of humans, resulting in a "cybernetic feedback loop in which we become trapped and [are] at the mercy of the creators and controllers of the digital information systems with which we interact" (304). In a similar vein, Pettman notes: "We

[90] See Manovich's discussion of media analytics, "the newest stage in the development of modern technological media" ("100 Billion" 473).

[91] The Baader-Meinhof phenomenon is "a name for the experience of learning of or encountering something for the first time and then very soon after encountering it again, often in multiple places. The sensation is thought to result from having an increased awareness of the thing after the first encounter" ("What Is The 'Baader-Meinhof Phenomenon'?").

[92] Bakardjieva describes how users now send "objectivations" and representations of themselves out into the world by extending their "social quasi-presence across space and time" (55). Because the social world is now so "densely colonized by the objectivated fragments of the conscious lives of [our] contemporaries" (55), it can be difficult to disentangle all the elements of one's digital identities.

[93] See Michael Veale's "Rights for Those Who Unwillingly, Unknowingly and Unidentifiably Compute!"

now shed information about ourselves at the same rate as skin cells or strands of hair, to be vacuumed up by [bots]" (13). The unintended digital footprint that each user creates grows larger and larger as they interact with their smartphones, use social media, support various brands, and purchase different services. This is difficult to avoid, as I will demonstrate with two different hypothetical examples.

Take the example of an avid outdoorsperson, who hasn't updated their social media in years. They require a new canoe, and so they search Google, Facebook Marketplace, and Kijiji. All of a sudden, information about them—location, hobby, surmised income level—becomes available. These then lead to targeted advertisements about a related range of products, provincial parks, and outdoor skills courses that would never otherwise have reached the user in this (unprompted) manner. This development could be seen as a boon, if the user had been actively looking for this information. However, it is the fact that it was triggered by other actions and then pushed to the user that is the deeper concern. On the other hand, consider the example of a teenaged boy surfing the web for motivational content because he's feeling low. He comes across a YouTube video by Andrew Tate in his "recommended videos." As he watches, other videos from Tate are recommended, and he views several more. Without even knowing it, this boy has now been stereotyped into a very specific and potentially very harmful demographic based on his navigation of this particular "online choice architecture" (Wu et al.)[94]. The algorithms that preside over what people will see (and when) are largely based on guesswork about who they are and what they care about—but at the same time, these algorithms have the potential to *shape* these intimate details about people, especially for younger users who do not yet have an established sense of self.[95] These algorithmic rules and IF/THEN logics, while not literally appealing to users,

[94] That is, "the characteristics of the [online] environment in which options are presented" (2983).

[95] Speaking specifically of TikTok's "For Me" algorithm, Aparajita Bhandari and Sara Bimo even note the emergence of "the algorithmic self," which "understands the self as deriving primarily from a reflexive engagement with previous self-representations rather than with one's social connections" (9).

are nonetheless making strong arguments and assumptions about who likes what—and how to *tell* who likes what, which is significantly different.

It is important to look at how this gathering of information is supported rhetorically through the captological aspects of the smartphone's interface. User privacy is something that must be switched "on"—it is not a default option.[96] Privacy policies and Terms and Conditions statements are long, arduous, and can seem to bury important details amidst walls of text. It is much harder, if not impossible, to disable cookies on websites, even though laws now require us to be notified of their presence. Beta testing is undertaken to see which UX and UI features are most popular, again highlighting how the power of individual preferences goes far beyond conscious choices that users make when interacting with different versions.[97] The unintentional (and potentially unwanted) customization that results from the current structures of smartphone and computer use can have concrete and long-lasting impacts on people, not only in terms of their online presence, but also in terms of their decision-making, practices, and beliefs. This problem is likely to grow, too, as more and more people turn to generative AI personal assistants that will further customize content based on the information received from the user. Because of this, even though their smartphones can facilitate feelings of empowerment and control, users must be extremely wary of how their online behaviours—all of which can be surveilled, quantified, and commodified—are being structured or shaped by their interactions with their digital devices.

3.3.5 Conclusion

I have here discussed how the customizability of the smartphone's interface contributes to its persuasive power. We can think of this as being part of the smartphone's rhetorical address, insofar as it is part of how the device appears and thus appeals to users during engagement. Smartphones are customizable at many levels of the user interface and

[96] See Tero Karppi on Facebook's "Off-Facebook Activity" for an example of how users are now being given the option to "opt in" to greater security.
[97] See Olson, "A Massive Social Experiment On You Is Under Way, And You Will Love It"

experience. What people see on their screens can be selected and arranged in a myriad of ways unique to each individual, which promotes a sense of familiarity and friendliness between users and their smartphones. From the fingerprints or faces that users offer up to unlock their phones, to the visual and audial signals they select for notifications, to the applications that they download, people's experience of their phones feel entirely personalized and unique to them as individuals. The smartphone's organized and organizing presence encourages people to use it more, to entrust it with more; it becomes a comforting, familiar object that users form affective attachments to.

Smartphones thus fit very nicely into what Aron calls "the self-expansion model," which applies to the expansion of "both personal capabilities (self-improvement) and self-concept" (Hoffner et al. 2454). This model "contends that people are motivated to expand the self, to know or become more, to move closer to a state of wholeness"—and not only in terms of their "material resources, but also their cognitive complexity, competence, self-efficacy, relatedness, and sense of place in the universe" (2454). By allowing users to gain access to personalized content and deeper "self-knowledge" through quantification, the smartphone appears to offer users a means of expanding themselves through experimentation, documentation, and self-reflection. However, this potential for self-expansion is far from benign. Engagement with a smartphone drastically increases a user's digital footprint, resulting in the "shedding" (Pettman) of data that is then used to inform more effective and persuasive appeals to the user. Thus, when we look at customization on a small scale or individual level, it might appear to be a neutral or even positive feature of modern life. However, the freedom of individual creation and expression afforded by the smartphone is largely just based on choice from a large but finite number of preset options. As such, attempts at self-construction, display, and empowerment result in further subsumption into and domination by a system ingeniously designed to "reward" users in exchange for their money, time, energy, and data. In the next section, I will discuss how the impacts of customizability play out in the wider arena of procedural rhetoric.

3.4 Procedural Rhetoric and Customization

> *The question: to what degree are humans different from bots when it comes to the various metrics concerning online behavior? To what extent have our own routines become fully pre-empted* sub-*routines, or apparently algorithmic?*
>
> – Dominic Pettman*, Infinite Distraction,* 2.

What sorts of procedures and arguments are created by the smartphone's customizability, and, by extension, the experiences of daily life it facilitates and supports? The ability for customization is largely taken for granted in our late capitalist era, wherein a person can customize everything from Nike sneakers to haircare regimens to vitamin supplements. Smartphones reinforce this logic, both by being so customizable themselves and by acting as interfaces through which users can easily select, customize, and purchase products of all kinds.[98] Customization asserts that it is possible for users to shape and control their individual worlds by controlling the material elements that comprise them. Smartphones contribute to this empowerment because users can access information and cultivate self-knowledge more quickly and easily than ever before. In this section, I will first talk about the **logic of recognition**—which is, I believe, a façade covering a deeper and more dangerous **logic of integration**. I will then examine how the smartphone's customizability supports the ensuing, and interrelated, **logics of control, empowerment, and optimization**.

3.4.1 The Double-Logics of Recognition and Integration

First, and most obviously, the contemporary emphasis on customization clearly indicates that Western society values the idea of the uniqueness of individuals and individuality.[99] The smartphone offers numerous options for customization, on many levels of use, that allow individual users to tailor the device to their specific needs: accessibility features that enable

[98] See Lee McGuigan and Graham Murdock for more on the intensification of consumption in the digital age.

[99] The concept of individuality developed in Europe from the Middle Ages and through the Enlightenment, when the emphasis on *individualism* began to gain traction (especially in the United States following the American Revolution); see Horkheimer and Adorno, *Dialectic of Enlightenment* Chapter 1.

a wider range of people to navigate smartphones (and the world) more effectively; an increasingly diverse set of emojis featuring three gender options, six different skin-tone modifying options, and several configurations for families (including single parents and same-sex parents); and apps or social media platforms for specific demographics, such as Peanut for "mom friends." The proliferation of apps, groups, and features designed for specific users in ever more narrow niches indicates that there is a growing awareness of diversity within all communities. However, I believe that this development, while often reinforced in good faith and by people who truly wish to support and empower people, is actually spurred by a deeper and more insidious drive: the logic of integration, which masquerades as the logic of recognition.

According to Charles Taylor, recognition is "a vital human need" that has always existed; however, it has become far more central in the contemporary era (26). The "modern preoccupation with identity and recognition" is due to two factors: "the collapse of social hierarchies" (which has led to privileging *dignity* over *honour*) and "the new understanding of individual ideality" that emerged in the late eighteenth century (which has led to increased concern for "*individualized* identity") (26-28). How does this recognition get taken up in the contemporary logic I am discussing here, particularly in regard to customization? As I will show, recognition is both a key cause and effect of customization. It is a *cause* because the designer or producer is recognizing the existence and needs of a specific user or group of users, and it is an *effect* because people who customize things mark themselves as being, in some way, unique. In both cases, recognition is not always freely given, and in some situations must be actively fought for and won (such as sixteen-year-old Rayouf Alhumedhi's 2017 campaign to the Unicode Consortium to add a hijabi emoji). A lack of recognition can come from power imbalances or uneven dynamics between the group seeking recognition and the group who has the power (whether political, economic, or social) to grant it. These active efforts can address the biases or oversights that are often present at the inception or design phase of new technologies, which result in technologies that privilege particular types of users with specific capabilities or qualities. Approaches

such as Value Sensitive Design (Batya Friedman), the Tarot of Tech (Artefact), or stakeholder assessments (Fogg) can help designers to be more inclusive with the products, platforms, and services they design. The customizations I noted above as recognizing the unique situations of individuals (accessibility features, diverse emojis options, and apps or platforms for specific demographics) do serve to accommodate and reflect a wider range of users. However, *they are also all examples of the logic of integration at work*.

As recognition and integration increase, fewer processes and people remain outside of the quantified and quantifiable systems that now structure so much of daily life. Even movements or groups that began as countercultural or revolutionary get taken up by mainstream sources in order to reduce their political potency. For example, as discussed in "Teaching Resistance: The Racial Politics of Mass Media," bell hooks was extremely wary when television began catering to black viewers, because it meant that black viewers had become another audience to be subsumed into the dominant economic hegemony that was still centred around whiteness and white males in particular (hooks further addresses the commodification of blackness in "Marketing Blackness: Class and Commodification"). Similarly, in "Subjects of Empire" Glen Coulthard asserts that "the reproduction of a colonial structure of dominance like Canada's rests on its ability to entice Indigenous peoples to come to *identify*, either implicitly or explicitly, with the profoundly *asymmetrical* and *non-reciprocal* forms of recognition either imposed on or granted to them by the colonial-state and society" (439).[100] In both cases, recognition represents not a genuine move for equality, but rather a new iteration of ongoing colonial or racist forms of domination that import normativity through hegemonic values.[101] To take a more banal example, even consider the "hipster" aesthetic, which was once explicitly anti-norm but has now become a

[100] "I take 'politics of recognition' to refer to the now expansive range of recognition-based models of liberal pluralism that seek to reconcile Indigenous claims to nationhood with Crown sovereignty via the accommodation of Indigenous identities in some form of renewed relationship with the Canadian state… instead of ushering in an era of peaceful coexistence grounded on the Hegelian ideal of *reciprocity*, the politics of recognition in its contemporary form promises to reproduce the very configurations of colonial power that Indigenous peoples' demands for recognition have historically sought to transcend" (Coulthard 438).
[101] For a different angle on the politics of recognition in a Canadian context, though, see Charles Taylor's full piece on the politics of recognition.

popular style for people of many socio-economic backgrounds. Hipsters have now been turned into a sort of cookie cutter that can be copied through telltale brands (Urban Outfitters, Levi's, Vans, and American Apparel, to name a few top Google hits) and consumption patterns (using mason jars for everything, frequenting trendy cafes, and listening to folk or indie music).[102]

In some cases, attempts at recognition and integration are an artificial response to or mimicking of situations that were formerly naturally occurring. Accessibility options enable differently abled or disabled users to better participate in a world structured around specific values of productivity and consumption. While greater autonomy for these users is certainly a positive development on an individual level, it also overshadows how their abilities might be not be *dis*-abilities in other social arrangements that do not privilege economic involvement and productivity at all costs. In the case of emojis, having a diverse range of skin colours appears positive, but it nonetheless glosses over the diversity of different cultures and peoples by reducing them to a choice of six skin tones (and only a few varieties of traditional clothing options, as of 2024). No matter how vast this range is—there are close to four thousand emojis available as of iOS 17.4 in 2024—it will always be a reduction of the richness of cultures and peoples. And, lastly, looking at the Peanut app for mom-friends, mothers would not need to use an app to find friends if the experience of raising a child in the modern world were not so isolating and isolated, with each family expected to take sole responsibility for childrearing. In societies where childcare is a shared responsibility, mothers are not isolated from the rest of society and forced to suffer a loss of identity, self-worth, or social engagement as many mothers do now.[103]

On the flip side of the unity achieved by the logic of integration and recognition, these logics also serve to distance people from one another. This applies on both a small,

[102] For a thorough examination of the process of "hipsterization" throughout the mid-1900s, see Thomas Frank's *The Conquest of Cool*.

[103] See, for instance, the work of Billie Lever Taylor et al. or Debra Copeland and Bonnie Harbaugh.

short-term scale and a larger, more encompassing level. On a small scale, because people's lives are routed specifically around what they have chosen and want to focus on, the procedures they engage in will almost always be optimized for them specifically. The logic of integration performs a sleight of hand: it reduces the possibility for collective action, since people now get to live in custom bubbles, watching their own media, reading their own news sources, getting an experience of life that is unique and thus peerless. Expanding notions of individuality have always presented an obstacle to collective action, especially in an American and North American context; indeed, there has never been a time of perfect collectivity and agreement between all parties, because differences between people have always existed. However, what is unique about today's situation is that everyone is encouraged to signal and commodify their particularities and preferences. Full solidarity becomes increasingly difficult to achieve because of the proliferation of options and choices requiring a YES/NO which thus pigeonhole people further and further into niches. As such, the proliferation of voices and identities we see in the market and in society today makes for many intersections, but further reduces the likelihood of deep solidarity and alignment.

The commodification of difference and the drive for recognition seem to be two sides of the same coin (because all forms of expression are acceptable, as long as they can be quantified and paid for). The goal is to find the kernel of uniqueness, of difference, and bring it into relevance, either through visibility and (social or political) change, or by attaching a monetary value to it. While the former is a necessary and just goal, especially for underprivileged or unrecognized groups, the latter is an attempt to capitalize on and commodify difference, to benefit financially from the increasing diversity of modern societies with niche products and services. What is perhaps most noteworthy of this trend towards recognition and integration is that, although it appears to provide more diverse and heterogeneous means of expression, in the end all people are homogenized into the roles of consumers and producers, dis- and de-individuated (Stiegler, Pettman) by the capitalist system they operate within. Recalling my point about Goffman's "performative palette" (the "'setting' for the presentation of the self" [97]) being comprised of commodities and

consumable elements, we can see how different identities or intersections are signified through purchasing power. For example, a feminist today might be recognized not only by their statements of personal beliefs or attendance at political rallies (clear indicators in the past), but also by their social media participation and networks, physical appearance, relationship structures, use or non-use of various products or services, and signifiers available for purchase in the form of clothing and home décor (I encourage readers to search "how to be a feminist" or even just "feminist" in Google's "Shopping" feature).

A final key aspect of the logic of recognition and integration is the importance of *transparency*, a concept I want to discuss in the context of Han's work. Han's conception is different from approaches to transparency emerging in STEM fields as a reaction to problems of bias in technology, which call for greater fairness, accountability, and transparency in the development and deployment of algorithmic and computing systems. These initiatives are important and necessary countermeasures to the black-boxed nature of many computing systems, especially in Big Data. However, I am specifically interested here in transparency in a broader sense—what Han calls a "neoliberal dispositive" (in the Foucauldian sense of *dispositif*). Transparency as a dispositive "forces everything inward in order to transform it into information" (viii). Smartphones encourage users to put themselves on display because the devices allow users to capture intimate moments that never would have left private spaces of the home in previous eras. And yet, there are now content producers on platforms of all kinds who offer looks into all aspects of their lives. This is another form of the logic of recognition because it pushes for a visibilization of the private, of bringing one's unique life to light in the public sphere (will take up visibilization and visibility more in Chapter 4).[104] This visibility can, again, be created for ends that are entirely wholesome and positive, such as individuals with rare medical conditions showcasing their daily routine to help others with the same condition or to raise awareness in the wider public. The issue here is not the direct intention of content creators, but rather

[104] "Intimacy is the psychological formula of transparency. One believes that one attains transparency of the soul by revealing intimate feelings and emotions, by laying the soul bare" (Han 35).

the way that this drive for transparency is promoted and now often expected of people; opacity is withholding, withdrawn, even dangerous.

To be clear: I am in favour of institutional, political, economic, and technological transparency on policies that affect people's lives. But I do not see transparent or see-through *subjectivity* as something to strive for. Han doesn't even believe that true transparency is possible, because

> [f]or one, human existence is not transparent, even to itself. According to Freud, the ego denies precisely what the unconscious affirms and desires without reserve. The id remains largely hidden to the ego… a rift runs through the human psyche and prevents the ego from agreeing even with itself. This fundamental rift renders self-transparency impossible. (3)

Beyond the individual level, "[a] rift also gapes between people. For this reason, interpersonal transparency proves impossible to achieve" (3). Encouragement by corporations and digitally administered systems for total disclosure, quantification, and transparency results in people laying bare vulnerabilities and personal qualities that can then be capitalized on or exploited. Han calls this "the tyranny of intimacy," which, he says, "psychologizes and personalizes everything" (35).[105] While *tyranny* may strike readers as a rather bold choice of words, it does seem to be the case that the push for self-disclosure in all aspects of selfhood results not in greater freedom, but in unfreedom—especially when the information being given results in a strengthening of the integrative forces pulling people ever deeper into the capitalist system.

A last important distinction Han makes that I want to emphasize is his point that: "Transparency and truth are not identical. Truth is a negative force insofar as it presents and

[105] As Han says, "[e]ven politics cannot escape its grasp. Accordingly, politicians are no longer measured by their actions. Instead, general interest concerns their persons; this entails compulsive staging on their part" (35). Manovich notes this shift towards the personal in politics when he writes: "The leaders of the middle of the twentieth century were presented as invincible; as being always right, and, in the case of Stalin and Hitler, as true saints not capable of any human sin. Today we expect to learn about the scandals involving our leaders, and these scandals do not really diminish their credibility" (*Language* 187).

asserts itself by declaring all else false. Further information—or simply an accumulation of information—produces no truth. It lacks direction, that is, sense" (8). Thus, the logic of recognition and integration, which relies on self-disclosure in an attempt to get closer to some shared understanding or truth (whether within an individual or a collective), is actually counterproductive. Han states that "where transparency prevails, no room for trust exists. Instead of affirming that 'transparency creates trust,' one should instead say, 'transparency dismantles trust'" (48). The fact that people who do not have social media profiles, or who do not post on their profiles, are viewed with suspicion is a simple testament to contemporary society's general distaste for not-knowing. The fact that Google handles 99,000 search queries every second (which adds up to about 8.5 billion searches daily) is another testament (Flensted). The fact is, integration cannot happen when people withhold themselves. *Recognition* can still occur when people withhold themselves, but it also leaves a respectful distance. Integration does not observe a respectful distance, but instead works to *remove* distance and thus create sameness, even if that sameness masquerades as many (commodified and commodifiable) differences.

3.4.2 Logic of Individual Empowerment/Control/Optimization

> *In front of the screen, users write, read, and produce texts and images as usual. But behind the screen, a universe of interacting networked computers, protocols, and algorithms proliferates like a rhizome, which can no longer be seen or controlled by those located in front of the screen.*
>
> – Sybille Krämer, "The 'Cultural Technique of Flattening'" in *Metode*, 13.

On a surface level, the main logic that the smartphone's customizability supports is that of individual empowerment, especially through choice and action. As Bolter and Grusin note, it is "a creed among interface designers that interactivity increases the realism and effectiveness of a graphical user interface: the icons become more present to the user if she

can reposition them or activate them with a click of the mouse" (30). Similarly, looking at computers in *Programmed Visions*, Chun notes that the "notion of interfaces as empowering is driven by a dream of individual control: of direct personal manipulation of the screen, and thus, by extension, of the system it indexes or represents" (62). That is, the customizability of smartphone interfaces, and of the worlds users can access through and with them, suggests that people can have control over certain aspects of their lives, even if there are many things they cannot control. The ability to fine tune home screens, notifications, and user experiences reflects a wider obsession in society with the ability for control and optimization.[106] Beginning with computers, digital technologies have given users an increasing amount of power to *make things happen*, whether virtually (with simulations or online connections) or in person (calling an Uber), often with very little physical effort.

The power of choice enables users to create a customized experience of daily life that is filtered through the apps and activities they choose to utilize; being able to select which apps one will download also means being able to determine which activities, metrics, or values will be highlighted in daily life. In this way, the choices that people make regarding the apps they download will very likely affect the way they *experience* daily life, because many apps facilitate particular procedures and interactions that take place on a regular basis.[107] The apps that people select and prioritize also dictate what features of a given day will stand out, how that day will be measured, and what can be optimized. If someone is a FitBit user, steps or zone minutes will form the basis for their achievements; if someone is an avid social media user, reactions and notifications will punctuate their day. And, of course, it is possible and likely that someone may be a frequent user of multiple apps, causing the number of considerations to further increase. The logic of empowerment here emerges through knowledge of, and thus control over, various factors in a user's life. By

[106] A review of Meta's 2023 updates to Instagram's capabilities (Bojkov) shows a staggering number of updates designed to improve the usability of the app through increasing user control and capabilities.

[107] See Thorhauge on micro-routines and Stine Lomborg on exercising apps.

being able to track, monitor, be reminded of, and pushed towards certain goals or metrics, people get the sense that they are able to optimize their lives.[108]

The idea of optimization—that it is possible and worthwhile to strive to get the absolute best out of every situation—is one that for most of history would have been considered *hubris*, an attempt to master nature or divine influence by one's sheer force of will and determination. However, starting with Frederick Winslow Taylor's theory of scientific management in the late 1800s and early 1900s, there has been an increasing interest in maximizing efficiency, particularly in economic terms.[109] Since the time Taylor's work was conducted at the Ford Motor Company, however, the concept of optimization has moved far beyond the assembly line. Just as automation in factories and workplaces greatly increased production (thus optimizing time spent in the production of goods), automation in computing drastically increased the realm of possibilities that one computer could achieve. The shift from physical to automated programming languages (in other words, the development of software), allowed for the automation of a plethora of processes, not only within a single computer but *across* networks of computers using the same programming languages.[110] Automated programming languages permitted user-based customization through command line programming and then later WYSIWYG interface and operating systems.

---

[108] Natasha Schüll discusses the "ideal of technologically assisted self-regulation" in self-tracking devices, which "[offer] consumers a way to simultaneously embrace and outsource the task of lifestyle management, thus simultaneously managing to exemplify and short-circuit cultural ideals for individual responsibility and self-regulation" (317).

[109] Although we could, arguably, locate the beginning of this optimization obsession even earlier, with the mechanization of handicrafts—the cause of the original Luddites' rebellion in the early 1800s. See Steven Jones' *Against Technology: From the Luddites to Neo-Luddism* for more.

[110] As Chun Explains in "On Software, Or The Persistence of Visual Knowledge": "With programming languages, the product of programming would no longer be a running machine but rather this thing called software—something theoretically (if not practically) iterable, repeatable, reusable, no matter who wrote it or what machine it was destined for. Programming languages inscribe the absence of both the programmer and the machine in its so-called writing. Programming languages enabled the separation of instruction from machine, of imperative from action" (30).

A further development that emerged from computer software was the possibility of computer simulation on interactive and visual screen interfaces that, through automation, permitted a massive number of iterations to be performed for a given task in order to determine a desired particular outcome. These developments helped to solidify the idea that processes of all kinds could be monitored, modulated, and optimized by "simulat[ing] dynamic systems"— including "weather, population growth, the economy, and so on"—in which users could "vary the inputs, or causes, and observe the outputs, or effects, almost immediately" (Fogg 63). In other words, automated computer simulation gave users the ability to see into the future, or at least the potential future. The more future possibilities users could access, the more quickly the speed of development progressed, and the more the dream of control grew. This dream of control has now even been extended to individual bodies, by way of the various devices like smartphones, smartwatches, and other wearables that track and measure biological data. These measurements, by which days can be quantified (and are, especially, by those in the "Quantified Self" movement[111]) give users the ability to project themselves into the future as well as assess their bodily experiences in the present moment: heart rate, blood oxygen level, running speed, and more. The maxim "what is measurable is manageable" reigns supreme in today's digital era, both for individual users interested in optimizing their experience of life and for the corporations that measure every piece of data that comes from people's actions and interactions with their connected digital devices.

Another key aspect of empowerment through smartphone usage comes from what Sarah Banet-Weiser identifies as the shift in the "formation of individual subjectivity from a passive consumer to an active subject" (47) that has been heralded by the development of Web 2.0. Discussing this development in consumerist terms in particular, Banet-Weiser

[111] This movement began in 2007, initiated by *Wired* magazine editors Gary Wolf and Kevin Kelly, although self-tracking using wearable computers, in particular, began in earnest about four decades earlier, in the 1970s. As Morozov notes, data-tracking is nothing new; Benjamin Franklin was reportedly "obsessed with his quest to achieve 'moral perfection' [and] kept a diary ledger where he tracked his progress along thirteen virtues, like frugality and temperance" (229). For more on the topic of the Quantified Self, see Deborah Lupton.

asserts that it is important to consider "the current glamorization of the consumer-producer… when theorizing the empowerment of the contemporary consumer citizen" (46). This is because the "blurring of boundaries between consumer-producer so celebrated in Web 2.0 discourse is often cited as a tipping point in the formation of individual subjectivity from a passive consumer to an active subject" (46). The reason this boundary collapse is so celebrated—especially by marketers and advertising teams—is because it supposedly represents a disruption to "the traditional top-down delivery of information, from powerful producer to passive consumer" (46). In the current state of affairs, consumers have "greater latitude and freedom than ever before to produce individually meaningful material," which, Banet-Weiser emphasizes, also includes the "'freedom' to engage in immaterial labor" (47). Because the formerly sharp distinctions separating "production and consumption, labor and culture" have been "questioned and denaturalized… the resulting space opened up becomes the space of individual empowerment" (47). In other words, the simultaneous lack of boundaries and rise in options and opportunities have allowed many more users to participate in the social and economic spheres. This newfound ability to participate affords people a greater sense of empowerment because it equates the potential for production or consumption with agency.

It is important to note that this logic of control and individual agency is also, in many ways, predicated upon giving *up* power to act. People are outsourcing more and more of their daily lives to their smartphones, from remembering facts and information to making decisions. The customization and subsequent convenience users enjoy is oftentimes made possible only through ceding information in a seemingly necessary exchange. Therefore, although users may see their smartphones as opening up options and opportunities, in some ways they have fewer and fewer choices, especially as things are increasingly customized *for* them without their awareness. On a personal level, the procedures people engage in through their smartphones push them towards specific goals and lifestyles while downplaying or overwriting others. For example, the more information Google gains about someone's demographic and search habits, the less variation in choices they receive when

using Google search. Or, when someone shops at certain stores that track their shopping habits, they receive suggestions for similar products, which keeps them ingrained in existing patterns that are only broken when new and exciting items are "pushed" to them. For instance, Sephora might suggest new facial cleansers to an individual with a history of skin issues, thus pushing that person further down the rabbit hole of finding "the holy grail" of cleansers. Meanwhile, simple olive oil has been known to work just as effectively as a cleanser, but such an option would never be suggested to the shopper because it might deter them from purchasing Sephora's products.

Another example is the trade-off users make when they use navigation apps such as Google Maps. Google Maps may save a great deal of time and anxiety when trying to navigate new places, but it may also lead to a skewed experience of these places, because data stored about historical preferences and habits does not produce an accurate map of the territory (Zuboff). Despite prevailing associations of empowerment through technology, the flow of daily life is customized not only by users' decisions (although this is what they are made to believe) but by the decisions of corporations and designers—decisions that are often invisible, and thus prevent users from actually *seeing* what they are missing. Users are thus often left with the *illusion* of control rather than full agency itself.[112]

To look at where unseen customization operates on a broader scale, we can examine how trends that emerge in collected data shape the way that corporations and governments address groups as a whole. For example, the sheer fact that people now consume much of their media on smartphones[113] has changed the way in which media is delivered. This

---

[112] This is in keeping with Vorderer and Klimmt's point that: "A user who can solve a great deal of problems through a smartphone (as he or she has access to an always-available toolbox in almost any conceivable situation) may feel a sense of heightened competence, self-efficacy, and therefore empowerment. Yet this same person might at the same time feel overwhelmed with the information that is accessible anytime and anywhere. And it might not so much be the information per se that has become available at any time and which can be retrieved or not, only depending on a user's need to do so, but rather the user's knowledge or sense that this kind of information (and actually almost any kind of it) in principle could be accessed" (61).

[113] The Reuters Institute's 2022 Digital News Report revealed that: "Across countries, almost half of under thirty-fives (forty-seven percent) say they accessed news first using a smartphone, compared with just a quarter

delivery is first tested to ensure it is as rhetorically appealing as possible and then monitored to ensure that the results are satisfactory for the content producers. The frequency with which people utilize their phones ensures that there is a wealth of data on every possible variable and feature thrust before users' eyes. For instance, think of the way in which Canadian politicians deliver speeches and debates now compared to before the rise of social media: there is a strong preference for short, punchy lines that fit easily onto a three-inch-wide screen, that look good as tweets, that are attuned to the attention spans and preferences of the average user as determined by detailed user experience data.[114] The customization of in-person performances for media distribution is not a new phenomenon limited to smartphones. The live debate between John F. Kennedy and Richard Nixon during the 1960 presidential election was aired on both television and radio; folks who watched on the television claimed JFK was the winner due to his visual appearance and demeanour, whereas radio listeners attributed the victory to Nixon on account of his words alone. What is unique with content customized for digital viewership, however, is the ability to determine the minute micro-factors contributing to users' actions (what thumbnails attract more viewers, how long viewers tend to watch, where and why they bail out, etc.).

A final aspect of the logic of empowerment is the notion of *constraint.* Farman cites Orson Welles' famous dictum that "[t]he absence of limitations is the enemy of art," noting that without constraints, "art and innovation are paralyzed. Within the window of constraint, the true boundlessness of their explorations can be located" (103). That is, when there are limitations placed on people's ability to create something, they actually become more creative within the boundaries given. Over time, smartphones have struck a finer and finer balance between choice and constraint. Thus, without users even being aware of it, smartphones' customizability offers the perfect balance between constraint and choice,

---

(twenty-eight percent) of those aged thirty-five and older and just fifteen percent of those aged sixty-five and older" (Newman n.p.).

[114] For more on this topic, see the work of Monique Kampherm on "The Effect of Social Media, Prosopopoeia, and Ethopoeia, on Televised Political Leaders' Debates" and Francisca Gonçalves Amorim on "Brevity, Emotion and Frugality in Political Media Rhetoric."

affording enough control to select from amongst a range of options, but not total freedom to customize, which has been shown to overwhelm users (Chun, *Programmed Visions* 65-66). For example, with multifunctional programs like photo or video editors, the editing options are all from a pre-programmed list of possibilities constructed through algorithms that perform certain functions (Manovich). Complete "freedom" is neither possible nor desirable, because the range of pre-set possibilities very adequately fulfills the needs of these programs' users. I will discuss the potential pitfalls of an over-proliferation of options in the following chapter, but for now I want to focus on the importance of constraint and limitation in the construction of the user's sense of empowerment.

Crucially, this structure of productive limitation underlies all the aspects of customization I've discussed above. Users believe they have a plethora of options and personal ways to customize their smartphones—and by extension, their lives—but these options all come down to a branching set of pre-determined possibilities created by designers and programmers. "Designers" in this sense applies not only to smartphone or software designers, but also to those who shape the economic, bureaucratic, social, spatial, and psychological paths that people navigate on a daily basis, giving them just enough freedom to feel like they are making their own choices while still ensuring that everyone stays within the realm of acceptability. As Packer et al. write, *true* control is "about manipulating topology, such that apparently unenclosed spaces can be invisibly deformed to delimit the possibilities for movement or action in accordance with the ends of power" (26). As such, people's "freedom to individuate [them]selves is an illusion, always anticipated and modulated by regulatory systems that deform the space of possibility at increasingly precise points in space and time" (26).

Furthermore, as Chun reminds us in *Updating to Remain the Same,* the modern vision of control and empowerment ignores the fact that apps and operating systems, like the world around us, are constantly updating and changing. Any onscreen elements that users select, set, or control can vanish without a trace, beyond recall. This is because, again, while users *feel* empowered through their engagement with their smartphones, at the end of the

day it is the designers and manufacturers who determine the limits of what is acceptable (and accessible). This lack of agency is, however, overshadowed by the never-ending march of progress that promises better, faster, stronger, and more immersive replacements for what might have been left behind. The tension between control and stability versus updates and change (Chun) also applies to individuals. This is because it is very easy now to make (at least superficial) changes to one's life, be that through a new skincare regimen, binge-worthy show, leased car, or new hobby guided by YouTube how-to videos. In the same way that users are now habituated to the constant turnover of new technologies, features, and functions, people are also encouraged to be constantly moving, trying new things, buying new products, making their lives easier, better, more authentic (in other, words, to expand and hone their performative palette). In this way, the patterns that the smartphone sets out in terms of "updating to remain the same" (Chun) also promote an understanding of the world as transient, fleeting, and always evolving. While of course this is true in the sense that, as philosophers as far back as Heraclitus were saying, the world is in a constant state of becoming, having the dictum that people *must* keep up with the latest development sends a very different message.[115] This message does not invite users to step back or focus on their own inner development, or on the becoming of nature. Rather, it pushes for a data-driven, innovation-centred progress that seems to strive towards a *telos* of optimization and perfection. Therefore, being "set in one's ways" or refusing to keep up is construed more than ever as a negative, because it suggests an unwillingness (or inability) to adapt to the pace of modern life.

3.4.3 Conclusion

I have here argued that customization is a result of two key double-logics that operate in contemporary society: the logic of recognition/integration and the logic of control/optimization. Both logics centre around values that appear to be beneficial to all

[115] As seen with the frustrating proliferation of iOS 14+ supported apps that began in 2020, rendering older iPhone models incapable of accessing common apps because their operating systems could not support the latest versions; see Hankey et al. on "software rot."

people. Who wouldn't want to gain recognition, to be accepted by a community, to have control over one's life? However, the issue here is that the smartphone offers people a means of upholding these values through what Lauren Berlant calls "cruel optimism": "a relationship wherein what we desire is an obstacle, rather than a pathway, to flourishing" (1). Through its various customizable options, the smartphone seems to offer users opportunities to optimize their lives and capitalize in ways that will empower and excite them. And while this *is* true in some ways—often very superficial ways—this offer can also deeply impact users' experience with the world around them in ways that they rarely control or even fully understand.

Furthermore, although the customizability of digital devices now offers greater inclusion and recognition, especially that signified by representation, recognition does not bestow genuine structural equality to the acknowledged groups. Rather, it can often just be a surrogate for genuine change, which results in an opening of the market to offer products, services, or consumables targeted at a (new) given group. And so, while being recognized can be empowering and validating, it does not automatically mean that one's situation or life will improve. It also does not mean that designers and manufacturers are necessarily addressing genuine issues in smartphone design. Sometimes, a little bit of extra freedom here is just enough to distract from the loss of freedom elsewhere. And, even if it isn't enough to distract (or compensate), users are often left with little choice but to make do with what is offered.

3.5 Conclusion: The Integrated Subject

> *A closed system has a finite set of units and operations and cannot accommodate any new relations between them. In a strict sense, anything discoverable within a closed system is a tautology—a restatement of what was already there.*
>
> – Carolyn R. Miller, "Technology as a Form of Consciousness: A Study of Contemporary Ethos," in *Central States Speech Journal*, 234.

> *The administered world has the tendency to strangle all spontaneity, or at least to channel it into pseudo-activity.*
>
> – Theodor Adorno, "Resignation," in *Critical Models*, 292.

At first one might be tempted to argue that the type of subject created by customization is one characterized by narcissism. The massive potential for customization of so many aspects of daily life certainly has increased the emphasis on the construction and curation (not to mention commodification) of the self. However, this portrayal is slightly reductive and also, I believe, misplaces the onus onto individual users who are doing the selecting and optimizing. Rather, I would argue that what we see most today is the **integrated subject**. As customizability increases, so too does the integration of individual users into the capitalist system, which just *manifests* most commonly as narcissism in the sense of self-centred (in the non-colloquial sense) customizations that naturally revolve around the individual.

This individual interest in customization and optimization does not necessarily indicate a personal shortcoming or flaw, but rather the purposeful and successful exploitation of human tendencies. When users are offered more and more options, of course they will begin to consider themselves in new ways that they wouldn't have before. For example, whether one prefers to have their screen in "light mode" or "dark mode" is a comparison that would have made zero sense to someone in the 1030s, 1530s, or 1930s alike. But the fact that people now have the option to toggle between a dark screen with light text and a light screen with dark text has created yet another choice for them to make—a far cry, surely, from what the Greeks meant with their philosophical maxim to "*know thyself*." And, of course, this preference is not just a simple case of "like versus dislike," but a point of note for designers and corporations, who will then use this preference for some new end in future design iterations.

What we are seeing now is a proliferation of options that integrate users further and further into the matrices of techno-capitalism in all its forms. The push for transparency speeds this integration by encouraging users to give out more information, more rapidly, in

order to get a more optimized experience of daily life (in terms of everything from driving routes to friendships to meal prep). It thus becomes harder and harder to remain unaffected by the system, which is increasingly tailored to accommodate users' every need and desire. When people are given so many options for how to thrive in the current system, they are less likely to look beyond the system to see how it could be restructured or ruptured entirely.[116] As Armond Towns said in his talk for the Critical Tech Talk speaker series at the University of Waterloo: "I'm not saying [representation] isn't important… but my interest is in: how do we imagine a different type of world and a different type of knowledge and a different type of system that is less exploitative and extractive than what we currently have?" (40:25). This ability to look beyond is jeopardized when the world as it is seems so customizable and comforting.

Furthermore, today everything has been made searchable and, more importantly, *findable*—as evidenced by Google's new "Lens" feature that enables users to find products for purchase based on photos.[117] Users' awareness of this constant possibility of discovery, orientation, or location makes them far more likely to be pulled into their smartphones for a variety of reasons. In this sense, Herbert Marcuse's 1964 statement about the totalitarian nature of the capitalist system still holds true:

> In this society, the productive apparatus tends to become totalitarian to the extent to which it determines not only the socially needed occupations, skills, and attitudes, but also individual needs and aspirations. It thus obliterates the opposition between the private and public existence between individual and social needs. *Technology serves to institute new, more effective, and more pleasant forms of social control and social cohesion*. (xlvii, emphasis added)

While Marcuse could not have known about the future of computer algorithms and mass customization in 1964, his writing certainly foreshadowed the developments we are seeing

[116] This is where speculative design comes in, with its focus on looking beyond current systems and structures to create totally new configurations; see, for example, Anthony Dunne and Fiona Raby.
[117] The idea of "searching" suggests a psychological component insofar as it refers to a careful and thorough attempt to discover something (and, coincidentally, it comes from the Latin *circus*, or circle—a fitting term for the inescapable loops that users find themselves caught in).

today.[118] The current forms of social control and social cohesion often don't even seem to *be* forms of control, but rather (according to the double-logic of recognition/integration) a means for allowing people to express themselves and optimize their experience of the world around them. As Han would say, we have moved from a society of "you *should*" to "you *can*," a reformulation of the formerly repressive dictates of society into a (seemingly) positive proclamation of individuals' power and freedom.[119] And yet, despite this supposed move towards positivity and freedom, in today's digital society "the subject is just as much managed as it manages, and is accessed as much as it accesses" (Packer et al. 154). Indeed, to borrow Packer et al.'s phrasing, in this society the user "becomes a subject on demand, a database compiled into innumerable dividuals by advertisers, content companies, [and] governments" (154).

While it is true that customizability can serve immediately positive ends, it also serves to make the smartphone more persuasive to users, and even to persuade users that the world(s) smartphones allow them to access are the ones that matter most. When the customized world created "especially" for each individual is safer, more familiar, accessible, and entertaining, why would users want anything else? Accepting integration can make life easier and more comfortable, that much is obvious. And yet, the problem with a fully customized and integrated life lies in the fact that it relies, as I have argued, upon rendering oneself transparent and actually giving up individual agency to determine the course of one's life. People's lives will always, of course, be circumscribed in ways beyond their control because of the milieu they are born into. But at the same time, to actively and knowingly submit to algorithms and Big Data out of convenience or comfort is something that users *do* have a choice in. However, the apparent positives of opting in are seeming, increasingly, to outweigh the potential (unseen, not-yet-real) consequences. In the next chapter, I will

[118] For more on Marcuse and modern technology, see Christian Fuchs' *Critical Theory of Communication* and "Herbert Marcuse and Social Media."
[119] For more, see *The Burnout Society.*

discuss how users' perceptions of these potential consequences—and a host of others—are being impacted by the smartphone on both a captological and procedural level.

Chapter 4
Consequentiality

4.1 Chapter Preview

Chapter 4 asserts that the smartphone's address alters the sense of consequence attached to phone-facilitated interactions and actions. Recall that this consequentiality refers to both the perceived importance and the actual experienced impact associated with these interactions and actions. In some cases, the sense of consequence is amplified; in others, it is reduced or obscured. The first two sections of the chapter explore the increase in consequentiality, first through a captological lens that addresses the smartphone's **"aliveness,"** the **psychological principles and strategies** employed to "hook" users, and how ***kairos* and consequentiality** intertwine in a variety of ways. I then explore the logics that arise procedurally from the increased consequence of the smartphone's address, including the logics of **visibility**, **preservation,** and **"right time."** The following sections, accordingly, examine the decrease of consequentiality. Though there are obvious points of contradiction between these sections and the previous on increased consequentiality, I encourage readers to think of them as a sign of the conflicting and self-contradictory nature of users' relationships with their smartphones, as well as of the multifaceted contexts and circumstances in which smartphones are involved. I look at how the **mechanisms of use**, formation of **conditioned responses**, and **ability to be anywhere any time** captologically reduce the sense of consequence associated with phone-facilitated actions and interactions. I then offer a procedural rhetorical consideration of the interrelated logics of **the buffer**, **infinite distraction**, and **"out of sight, out of mind**." I conclude by describing the subject that this altered sense of consequence creates: **the unmoored subject**.

4.2 The Captological Increase of Consequentiality

As Cooley explores in *Finding Augusta: Habits of Mobility and Governance in the Digital Era,* a smartphone's haptics and physical interfaces make user *want* to touch it and to engage

with it. I thus begin here with a captological reading that clarifies how the smartphone has become encouraging and exciting to engage with. I first look specifically at the increased sense of consequentiality created through what Fogg calls "microsuasion." Microsuasion is achieved when "smaller persuasive elements" are incorporated into a computing product to aid in achieving another goal (that is, when the main goal of the product itself is *not* explicit persuasion). Fogg gives the examples of "dialogue boxes, icons, or interaction patterns between the computer and the user," all of which are directed towards ends of communication or interaction (18). Thinking specifically of the smartphone, we can consider notification sounds and display options, haptics, and text boxes, all of which serve to encourage or persuade users to engage with it in a particular way. I will argue that these features make the smartphone seem "alive" and point to some consequences that emerge from this. I will next examine some key mechanisms of engagement on popular social media apps and how they captologically ensnare users. I will then look explicitly at the relationship between consequentiality and *kairos* (both immanent and opportune) by examining how these elements increase the consequentiality of the smartphone's address through increased opportunities for communication, creativity, and consumption. I will also note how the intensely time-sensitive nature of today's digital mobile spaces leads to new anxieties and heightened perceptions of consequence, both on the sending and receiving end of online communications.

4.2.1 It's… Alive?

From the previous chapters, we already know that a smartphone is genuinely *more* to its user than a mere gadget composed of circuitry and silicon. It is a companion and helpmate who provides information, support, entertainment, connection, and opportunities for self-expansion. In this section, I will touch on the sensory aspects of the smartphone that give it a social and physical presence. These aspects are important because "humans are hardwired to respond to cues in the environment, especially to things that seem alive in some way" (Fogg

89).[120] There are many ways smartphones appear to be "alive": the swirling light that indicates Siri is listening, the audial address of a ring tone, or the physical buzz of "you've got mail!" on the user's skin. The fact that the smartphone is either physically imprinted with users' fingerprints or trained to "see" their facial features further contributes to this semblance of sentience because the device responds to stimuli like a human would. It appears to "recognize" its user (although, as noted in the previous chapter, this is not always an accurate recognition), literally brightening when it "sees" the familiar face.

It is noteworthy too that much of the language surrounding smartphones (and computers more broadly) is the same language used to describe living beings. Lifting the device "wakes" the screen; the red empty battery icon indicates when the phone is about to "die"; plugging it in restores it to (full battery) "life." At the same time, humans are importing computational metaphors to describe our own mental and physical states, such as "I don't have enough bandwidth for that," "I need a break to recharge," or "things aren't computing for me."[121] Both sides of this coin demonstrate Bolter's assertion that: "By making a machine think as a man, man recreates himself, defines himself as a machine" (13). This is not a novel process—many metaphors drawing from machinery have been assimilated into the English language, as Bolter describes in *Turing's Man: Western Culture in the Computer Age*—but to see how computers, in particular, are discussed in human terms is instructive. As Fogg's studies have shown, constructing similarities between computers and people makes users more likely to trust computers and enjoy engaging with them (99). And, as Weizenbaum's ELIZA studies in the 1960s showed, people frequently interact with computers (especially language-based computational interfaces, as in Weizenbaum's case) as if they were alive, even when the users know otherwise. Essentially, the more

[120] Fogg describes several principles surrounding the impact of computers' "liveliness" on users' perceptions of them, noting that "at times people do respond to computers as though they were living beings" (89). This goes beyond obvious computer interfaces; in *Alone Together*, Turkle discusses how children interact with Furbies and Tamagotchis (electronic pets), as well as how lonely seniors are given the "huggable baby seal robot Paro" (24) to stave off loneliness and isolation.

[121] See also Earl MacCormac's "Men and Machines" for an overview of this "computational metaphor" perspective.

smartphones appear and appeal to users as "living," the more psychological weight people attribute to them as other sentient beings.

Furthermore, the smartphone's haptics—which employ a combination of touch and kinesthesia, according to Lynette Jones—increase the sense of physical responsiveness to users. Jones specifies that smartphones make use of "surface haptics," or "the creation of virtual haptic effects on physical surfaces, such as direct-touch user interfaces" (131). This type of haptic emerged "[w]ith the advent of devices that provide no tactile feedback in situations where we were used to experiencing tactile cues, such as typing on a keyboard" (131). Incorporating "such tactile feedback in flat screen devices," Jones says, is "critical to their use as effective human interfaces" (131).[122] Smartphones respond to users' touch; users respond to their smartphones'. This dynamic exchange, initiated by the intimate sense of touch, helps users to feel more connected to their devices by giving real-time feedback for on-screen actions and providing instant notification of incoming messages or calls. The integration of notification haptics has increased a sense of consequentiality on an almost subconscious level. For example, many users report feeling "phantom vibrations" in their pockets, even when their phones aren't there (Deb, Sauer, Laramie).[123] It is true that this phenomenon precedes the smartphone, having been an issue with the mobile phone as well; even with the mobile phone, the experience of phantom vibrations was so prevalent that it was actually deemed a syndrome in 2003 and has been the subject of studies since 2007. Sliman Bensmaia attributes these phantom vibrations to "the brain's penchant for filling in the gaps to find patterns" by mistakenly associating normal sensations of fabric rubbing or contact with objects in the external environment with the phone's vibrations (qtd. in Miller

[122] For more on the rhetoric of touch, see Shannon Walters' *Rhetorical Touch.*
[123] Greg Miller cites a number of studies conducted in the early 2010s that attest to the widespread experience of phantom cellphone vibrations: sixty-eight percent of a Massachusetts hospital's medical staff, eighty-nine percent of undergraduate students at a university in the American midwest, and over ninety percent of Taiwanese medical doctors during their internships (n.p.). Also see David Laramie's *Emotional and Behavioral Aspects of the Mobile Phone*.

n.p.). In other words, the brain becomes attuned to a pattern of stimulation and interruption that persists, even in the absence of that stimulation.

4.2.2 Psychological Factors: How Users Get "Hooked"

The discussion of phantom vibrations leads into my next section: how the smartphone functions as a *tool* to increase a sense of consequence for users. Many of the key features of smartphones today rely on Fogg's principle of conditioning, which, extrapolating from B.F. Skinner's notion of "operant conditioning," argues that computers "can use positive reinforcement to shape complex behavior or transform existing behaviors into habits" (49). As Fogg explains: "To be most effective, positive reinforcement should immediately follow the performance of the target behavior. However, the reinforcement need not follow every performance of the behavior. In fact, to strengthen an existing behavior, *reinforcers are most effective when they are unpredictable*" (51, emphasis added). And, while Fogg argued in 2002 that this principle of operant conditioning could be used for good—to encourage people to take their medicine, collaborate with colleagues, avoid smoking, etc.—he also acknowledged the possibilities for harmful or unethical usages that could come from this knowledge.

Since then many writers, including Nir Eyal, Chris Nodder, Nick Seaver, and Joshua Reeves, have written on how this principle manifests in smartphone design. Eyal's *Hooked* is a book for designers that explains how to best captivate audiences through specific systems of reward. For him, "hooking" the audience through the calculated use of habit-forming tactics is something to strive for because, "[t]hrough consecutive hook cycles, successful products reach their ultimate goal of unprompted user engagement, bringing users back repeatedly, without depending on costly advertising or aggressive messaging" (back cover). The Hook Model, Eyal notes, is unique from regular feedback loops in that it creates a sense of need or "craving" for users because of its unpredictability. In *Evil By Design*, Nodder likens the use of intermittent reward, so highly extolled by Eyal, to gambling. Consider a user descending through a doomscroll, an activity made possible by the "infinite

scroll" mechanism. Each time the user flicks their thumb, they are pulling that slot machine handle[124] in search of the next thing that will capture their attention.

Reeves similarly writes that "[t]he Web's hyperlinks entice and engage audiences, keeping us online by, in the prophetic words of Williams, offering 'the reiterated promise of exciting things to come, if we stay' Web texts, by giving their audiences a prodding glimpse toward what may come" (316). For him, the "actively emergent Web experience… is always flowing toward the possible" (316). This sense of the *possible* is very important to the process of hooking and captivating users. The smartphone makes use of—and exploits—humans' hardwired tendency to seek out novelty and reward. Because there is so much data and information out there to be discovered, the realm of the possible is vast. It is thus very appealing to people's novelty-seeking drives. Because of the vastness of the exploratory potential and the way in which information and "rewards" are revealed in a non-systematic way, users can endow their smartphones with far more psychological value (or at least attention). And, in keeping with Eyal and Fogg's tenets, escaping or changing this dynamic is made difficult by the smartphone's settings and mechanisms, which either require users to go out of their way to disable features that promote and feed into negative patterns of use (turning off notifications) or actually cannot be changed, since they are baked into apps' interfaces (the infinite scroll).

Again, it is important to emphasize that the smartphone's *default* setting serves to make it into an attention-getting machine, complete with unpredictable rewards in the form of texts, calls, tapbacks, reactions, etc. This is different from the classic telephone, which might create interruptions but would never in itself seek to gain the user's attention. That is, a telephone rings when someone on the line wants to reach the user. A smartphone rings (or buzzes, or chimes, or lights up) not only due to someone immediately trying to reach the

[124] Tristan Harris described the smartphone itself as a "slot machine" in his 2017 interview with Anderson Cooper: "Every time I check my phone, I'm playing the slot machine to see, 'What did I get?' This is one way to hijack people's minds and create a habit, to form a habit. What you do is you make it so when someone pulls a lever, sometimes they get a reward, an exciting reward. And it turns out that this design technique can be embedded inside of all these products" (Cooper n.p.).

user, but also due to a wide variety of other pushed notifications that are algorithmically initiated. And, even if someone avoids apps like TikTok or Instagram that are intentionally designed to capitalize on the novelty- and reward-seeking parts of the brain, there are still a plethora of other tools and features (texts, "Just for You" curated photo albums, and even Safari or Google search) that invite users into engagements and interactions.

As I have explored in earlier chapters, these apps and features become even more effective and impactful because their attention-grabbing factor is amplified by the constant and customized presence of the smartphone's address. A user who is continually receiving new content that is tailored just for them, and who is aware of the fact that there are thousands, if not millions, of interesting or entertaining things (posts, photos, articles, tweets, etc.) waiting to be discovered, is far more likely to continue engaging with their smartphone. This is because the device allows access to such personalized—and potentially personally beneficial—information. For example, Instagram's "Discover" feature selects posts that are curated and filtered through an algorithm based on users' likes (and Likes), dislikes, history, and network of followers. This means that a user is far more likely to swipe over to the Discover page, particularly if they're interested in keeping up with trends or following results from various goings-on (be they elections, sports games, television shows, or friends' nights out). It is also noteworthy that the Discover page is where the search tool is located; consequently, users run the risk of being distracted from their search query by the barrage of reels and posts that greet them when they go to input a search.

4.2.3 Social Media and Smartphones: The Drives

I now want to look specifically at social media platforms and how they serve to increase the sense of consequence associated with smartphone use. While this conversation may seem to veer slightly from my overarching smartphone-centred analysis, it is important to keep in mind the first two elements of my framework and consider how the constancy and customization of users' experiences on social media (on their smartphones) further increases the consequence discussed below. As the name suggests, social media began as a means of keeping up with what peers were doing. From Bolt.com in the 1990s to Friendster,

MySpace, and Facebook in the 2000s, early platforms connected peers and allowed people to follow, in real time, the thoughts and journeys of others on the platform. However, the possibility of keeping up (and the options for doing so) has grown exponentially in the past decade. There are over twenty-three social media sites with over a million monthly active users as of 2024 (Oladipo). Furthermore, people are not restricted to keeping up with folks they do know, but can "follow" practically anyone with an online presence and open profile.[125]

The desire to know what's going on—a variation of the desire for novelty, as it pertains to a desire to be informed about the new—can lead, especially for younger people, to a deep investment in social media and the followings they are a part of (or in charge of). This desire to be informed and to gain access to others' lives can be explained through several of Fogg's principles relating to computers as persuasive technologies. First, computers can foster social comparison and competition. As Fogg explains, "[p]eople will have greater motivation to perform a target behavior if they are given information, via computing technology, about how their performance compares with the performance of others, especially others who are similar to themselves" (260). Similarly, "[c]omputing technology can motivate users to adopt a target attitude or behavior by leveraging human beings' natural drive to compete" (260-261). The smartphone's affordances permit constant sharing and comparison with other people, both known and unknown to the user. More importantly, the smartphone enables users to generate greater public recognition through sharing successes or achievements—and to post far *more* in their search for validation or social capital, thanks to the ability to instantly upload photos as stories or posts.

Fogg furthermore notes that "[c]omputing technology can leverage normative influence (peer pressure) to increase the likelihood that a person will adopt or will avoid performing a target behavior" (260). This is important on two levels: first, the level of online

[125] According to a 2018 report on American social media use, forty-five percent of individuals have all of their social media profiles set to private, while twenty percent have none of their profiles set to private (Dixon).

pursuits, wherein people can be pressured to agree or disagree with certain perspectives, or to behave in certain ways that will then be broadcasted online; second, peer pressure can increase the likelihood, especially in young people, of getting a smartphone in the first place.[126] The "fear of missing out" (FOMO) on all the consequential things either taking place within or conducted through the digital realm proves to be a powerful pressure for young people and their parents. Thus, as discussed in Chapter 2 in the logic of the digital default, people who do not have access to smartphones can experience isolation (whether real or imagined) and distance from their better-connected peers.

Lastly, Fogg discusses research on social learning theory, which has shown that "people learn new attitudes and behaviors by observing others' actions and then noting the consequences of those actions" (201). The potential to learn from others has soared in the digital age, especially with smartphone-supported apps and social media platforms. While I will discuss this more specifically in relation to influencer culture and risk perception later in this chapter, for now I want to highlight the fact that smartphones give access to the trials, tests, and experiences of millions of people around the globe who are doing and trying different things. Examples of these range from self-help chiropractic care to "life hacks" with elastic bands to makeup tricks to brownie recipes made of little more than steamed squash and protein powder.[127]

It is important to conclude this section by noting that the "natural drives" Fogg cites exist independently of smartphones; humans have always been driven to compete, compare, fit in, and learn from others. However, what smartphones do is amplify the possibilities for *fulfilling* these natural drives, both directly (in the sense of actually allowing people to learn, better their skills, and perform more strongly in a variety of contexts) and in surrogate forms. Because the smartphone offers so many avenues for comparison, competition, and recognition, it has become integral to achieving and showcasing accomplishments in a

[126] Indeed, by age eleven, more than half of American children have their own smartphones.
[127] This particular recipe can be found on the Instagram page of food blogger "Lil Sipper" (@lilsipper), who develops recipes for people struggling with gut health issues.

variety of spheres. This is undeniable. As I will discuss below, though, the aims and outcomes of many of these "accomplishments" seem to align more with surface level or system-driven values and goals (what Marcuse would call "false needs"[128]), serving more to distract and placate than to fulfill.

4.2.4 Convenience, Convergence, Connectivity, & *Kairos*

This section links Chapter 2's discussion of the smartphone's convenience, convergence, and connectivity factors to the notion of *kairos. Kairos* is an Ancient Greek concept that has been contested from the days of Isocrates and Aristotle to Vatz and Bitzer to contemporary writers like Thomas Rickert, Debra Hawhee, and Bernard Miller. The popular conception of *kairos* typifies it as the "opportune moment" that is either capitalized on or created by the rhetor (depending on which side of the Bitzer/Vatz debate one falls on[129]). The emphasis here is on the individual and how they respond to or shape a situation. The second view of *kairos* sees it as ambient (Rickert) or immanent (White) in all situations in such a way that it calls or "wills" rhetors to action (Rickert 117). In this second sense, it is important for the rhetor to be attuned to the various aspects of their environment (either literal or metaphorical) in order to make an appropriate and informed address. Regardless of which of these two views on *kairos* one holds, however, this much is certain: the smartphone creates a heightened sense of consequence regarding both the propensity to see and seize a moment *and* to be fully attuned to the environments in which communication and persuasion take place. I would go even further to suggest that, with the ubiquitous presence of these mobile communications technologies, rhetorical situations have proliferated to the point of overwhelming their intended users, resulting in what I believe is a distinctly *kairotic* anxiety and sense of increased consequence.

---

[128] See *One Dimensional Man.*

[129] This debate occurred when Richard Vatz, writing in 1973, challenged Lloyd Bitzer's 1968 assertion that a rhetorical situation exists prior to rhetorical discourse; Vatz argued that the inverse was the case, with the rhetor determining the situation through discourse by selectively choosing what events, factors, or positions to foreground.

I want to start by discussing how immanent *kairos* impacts users' perceptions of and relationship to their everyday environment. This is *kairos* in the broader sense of "attunement," to use Rickert's term from *Ambient Rhetoric.*[130] It focuses not on a single moment of opportunity or human persuasive potential, but "includes the material environments we inhabit and thus describes a fundamental rhetoricity invoked by our originary weddedness to the world, as well as the ongoing pursuits that transpire within it" (xviii). In other words, this perspective sees rhetoric as something that "circulates through both human and nonhuman elements" (Rickert 3), something that is immanent in the ambient environment, thus opening up a more expansive understanding of rhetoric as forming through ecologies of influence. How does the smartphone encourage a novel sense of attunement to the environment? This is an interesting question, particularly because smartphones are often described (including elsewhere in this project) as a means of tuning *out* the outside world beyond the screen. Attunement through the smartphone is produced as a result of the multiple features and affordances that the device offers for engagement—and the fact that it is perpetually on hand. This makes users more aware of the myriad opportunities to interact with the world or with other people. As a result, the environment in which people operate now is fundamentally different from that of the past, *because* of these new and constant opportunities to participate in bringing about *kairotic* moments. From capturing humorous moments on Snapchat to running commentaries of sports games on Twitter to updating Waze with a cop's location, smartphones constantly invite users to engage in rhetorical moments and interventions. This is something that cultural anthropologist Mizuko Ito highlighted as early as 2004 regarding phone camera culture, describing the "persistent alertness" and "new kind of personal awareness" that come with having a camera-equipped phone—an awareness (or attunement) through which "the mundane is elevated to a photographic object" (1-2).

[130] As Rickert explains: "Ambience here refers to the active role that the material and informational environment takes in human development, dwelling, and culture, or to put this differently, it dissolves the assumed separation between what is (privileged) human doing and what is passively material" (3).

An important point about the sense of immanent *kairos* enabled by the smartphone: this *kairos* is immanent because smartphone-supported online spaces and platforms have literally been *designed* to allow and encourage idea- and information-sharing in seemingly real time (an ironic notion, when one considers that capturing something in real time is often achieved at the expense being present in the moment).[131] The immanence is not necessarily "false," but it is constructed with a certain aim in mind. Users are aware of this fact, and likely often feel empowered by it, thus leading to an increased sense of consequence associated with all the goings-on and possibilities ready for capture and display. However, despite the empowerment users might feel at this sense of agency and ability to make themselves (ostensibly) heard amidst the din of global communications networks in a unique and immediate way, it is crucial to remember that the rhetorical situations opened and enabled by smartphones largely exist for the purposes of making profit (the ultimate "aim in mind" mentioned above). This is as true for the subscription services people pay for like Spotify and YouTube Premium as for the free social media platforms people use on an ever-increasing basis. The price of being able to project one's thoughts, feelings, and opinions out into the world is that doing so almost always results in someone else's gain—especially when the procedures surrounding smartphone usage attune us in particular to consumer products, places of consumption, and commodified lifestyles, as I will discuss later on.

4.2.5 Capitalizing on (Opportune) *Kairos*

The push for greater user engagement and creativity also aligns with the notion of *kairos* in the sense of "the opportune moment." Because of the smartphone's constant presence and connection, *every* moment now offers itself up as one to be capitalized on—and not only with verbal speech or written words, but also with photos, reactions, retweets, and more. The convenient and ready-to-hand nature of the smartphone makes it a perfect tool for seizing (or creating) rhetorical exigencies. As some scholars have argued, however, this potential for

[131] Although, as Taina Bucher notes, online platforms now operate according to the "kairologic" of "right time" rather than "real time" (a concept I will discuss in more detail in the following section).

capitalization puts too much emphasis on the individual and their ability (or inability) to respond appropriately. The onus of agency is important here; people engaging with smartphones and other digital media are now referred to as users (or "produsers," in Chun's figuration from *Programmed Visions*[132]) rather than viewers, listeners, or audience

Figure 8: Story created in Instagram app

Figure 9: Story created in Instagram for mobile web (Safari)

[132] As Chun describes, in the digital age "it's all about you—and the future. You, the produser… you collaborate, you communicate, you link in, you download, and you interact. Together, with known, unknown, or perhaps unknowable others you tweet, you tag, you review, you buy, and you click, building global networks, building community, building databases upon databases of traces" (*Programmed* 13).

members. In other words, people are no longer passive individuals consuming content from screens, pages, or airwaves. Rather, they are active producers and co-creators from whom engagement (interactivity) is required and expected (as discussed by Carnegie, Murray, Cooley, and many others).

This emphasis on individual creativity is further heightened in some situations by the customizability factor, which positions the user as a remixing, remediating creator. For example, the "Story" feature on Instagram (see Figures 8 and 9) offers a multitude of different options on pretty much any aspect of the post: text vs image, colour filters, distortion filters, stickers, sound tracks (with or without lyrics), GIFs, location, tags, hashtags—the list goes on and on.[133] All of these features foster a greater sense of consequence in the final outcome by their sheer presence as options. And so, users agonize over posts, which can be fine-tuned or filtered in a myriad of different ways. For example, a user *can* post a simple photo with some text using the mobile Safari version of Instagram, which offers far fewer options for customization than in the app (as demonstrated in Figure 8). However, using the app, they are suddenly confronted with several *thousand* possible combinations of texts, graphics, pictures, filters, and add-ons rather than a very simple interface. The mere fact of the additional options puts extra demands on the user and increases a sense of consequence.[134]

My gestures in Chapter 3 to Chun's point that users get overwhelmed if they have too much choice is strongly evident here; unless a user specifically limits their posting practice to a simple or clearly defined formula, it is possible to get lost in preparing even a simple story. Regardless of the fact that most viewers will not care about the pristine layout of the story or post, the consequence attached to crafting it is significantly increased. This

[133] Stacey McLachlan discusses thirty features in her post on Instagram story hacks; this likely doesn't even scratch the surface of potential for the formatting.
[134] Speaking of TikTok, Jian Lin at al. describe how "TikTok's screen-like interfaces offers a marvellous collection of features and techniques to deliberately encourage the idea of creativity based on repetition, adapting to the volatility, ephemerality and instantaneity of time experience in contemporary world" (1564).

proves Barry Schwartz' central point in *The Paradox of Choice* that more options are not, in fact, better. Indeed, people prefer having fewer choices, because

> [t]he existence of multiple alternatives makes it easy for us to imagine alternatives that don't exist—alternatives that combine the attractive features of the ones that do exist. And to the extent that we engage our imaginations in this way, we will be even less satisfied with the alternative we end up choosing. (122-123)

In other words, "a greater variety of choices actually makes us feel worse" (123). Smartphone designers know this, which indicates that the plethora of options are not necessarily provided for users' benefits, but potentially to bring in more opportunities for revenue through affiliated links and services or cross-platform promotion (such as with sharing songs from Spotify or links to various websites). While this might seem like a rather small issue—who cares if a story takes one minute or ten to create?—when we look at the number of posts generated each day, this becomes a bigger point of concern. Furthermore, Instagram Stories are just one of many features on one of many apps that now offer increasing levels of customization. The onus on individual creativity combined with a seemingly limitless collection of tools for creating unique and buzzworthy content puts pressure on users seeking to capitalize on what social media has to offer. Ultimately, though, as Schwartz opines: "Unfortunately, the proliferation of choice in our lives robs us of the opportunity to decide for ourselves just how important any given decision is" (75).

4.2.6 The "Fear of Missing Something Important": Phones as Lifelines

Another important aspect of the smartphone's interface that increases a sense of consequence in relation to opportune *kairos* is the emphasis on visualizing time. I will discuss how this factors into an increase in procedural consequentiality in the following section, but for now I want to touch on the features themselves. Farman explains that "technology and time refine and amplify each other… as a technology divides time in more accurate ways, we shift our experience of time to match the standards of that new

timekeeping technology" (167). Timestamps, timelines, and read receipts[135] are, like the Ancient Greeks' water clocks, all means of making time visible and bringing it into conversation with *kairos*. They are also, however, means of inducing anxiety and pressure, all the more so for the sheer number of interactions that occur each day for each user. Read receipts, which can be difficult or impossible to disable in some applications, increase users' awareness of the time that has passed between the sending and receiving (and reading) of a message. Additionally, many apps specifically focus *on* time as a key means of measurement: maps apps show time to destination; sleep and fitness apps track sleep time or workout times. Even the way in which waking a phone reveals the time (which may account for the fact that only twenty-eight percent of Millennials and Zoomers wore traditional wristwatches as of 2021, according to Gouveia et al.), points to the emphasis on timeliness. In both senses—as tools (i.e., trackers, watches, and navigators) and as social actors (coaches, doctors)—smartphones encourage users to be sensitive to time. I will discuss how these features and affordances feed into the "kairo-logic" of "right time" (Bucher) in the following section.

The emphasis on time and timely response also increases consequentiality through the smartphone's role as a mobile "lifeline" that tethers people together (as both Twenge and Turkle have discussed). This tethering leads to heightened fears around missed messages and responses, and more generally the fear of missing something important. In other words, the consequence of the smartphone's address is significantly increased by the fact that, as mobile connected devices, smartphones allow people to get help when they need it. There is, obviously, a very positive side of this affordance that must be acknowledged: the sense of safety and security a smartphone can bestow on a girl walking home alone at night, a senior trying to navigate their staircase, or a traveller in an unfamiliar city. Because help is often only a phone call away, people feel safer as they enter situations that they formerly would have had to navigate alone with potentially dangerous consequences. In this sense, the

[135] Read receipts, Farman notes, are far from novel: medieval wax seals performed the same function in medieval society (134).

smartphone's constant, connected presence is empowering. However, this constant and connected presence has also created a dynamic in which those on the receiving of the call for help are constantly on high alert and particularly aware of the passage of time.

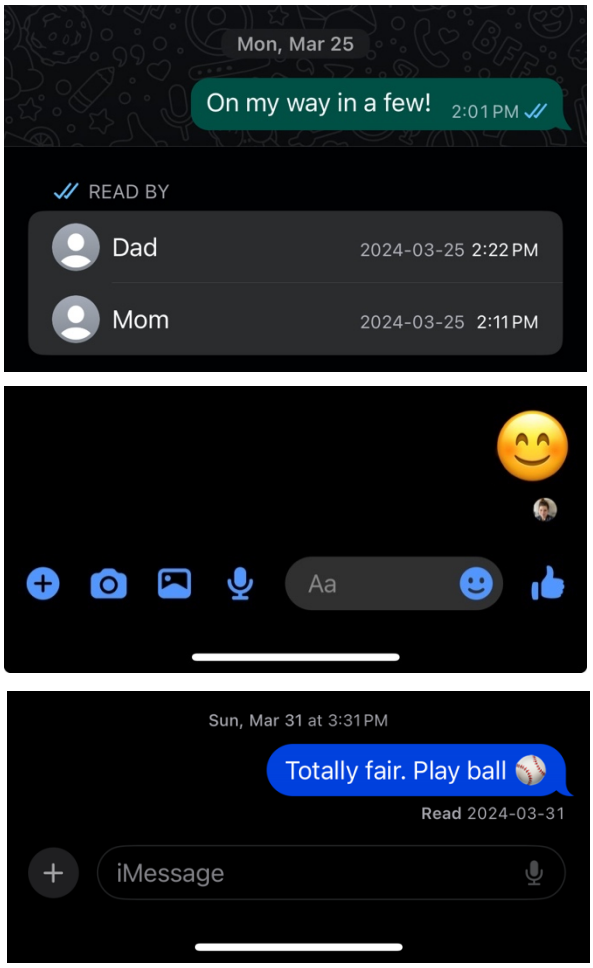

Figure 10: Three examples of "R-bombing" in WhatsApp, Facebook, and iMessage, (from top to bottom)

The sense of consequence of messages that come in can be amplified in two ways. First, it can be increased because of the awareness of the potential dangers or conditions prompting a call or message—a fear that something has gone wrong, that the caller needs help. However, a sense of consequence can also grow through the *absence* of an expected message. Silence, particularly when communication is expected, can be highly stressful, turning waiting for a response into an excruciating experience wherein users find themselves unable to concentrate on other tasks or goals until they have heard back (especially after being "left on Read" or "R-bombed"[136] as shown in Figure 10). This is because, when every moment can (ostensibly) be the moment at which a response might come through, each minute passes more slowly with the lack of fulfilment or reciprocation. For instance, if I expect my partner home from work at 9:00pm, and it is 9:30pm and I have not heard from him yet, I begin to worry. This is especially the case now that smartphones are

[136] In other words, when a recipient reads a message but doesn't respond, thus leaving the sender "on Read."

enabled with voice assistants that can send messages or place calls hands-free. A silence is charged with far greater consequentiality *because* of the ease with which messages can be sent. Due to this fact, the features of a smartphone that make it so simple and effective to use actually stoke a sense of anxiety or stress in those on the receiving end of a communication.

4.2.7 Conclusion

This section has discussed a number of ways in which the smartphone as a persuasive computing technology increases the consequentiality associated with the actions and interactions it facilitates. From the device itself feeling "alive" to the excitement of the content users can access to the plethora of (overwhelming) options for engagement and interaction, the smartphone has a strong effect on users. Just as a smartphone user might spend an inordinate amount of time fine-tuning their avatar's appearance or the lock screen collage, a person could easily spend many hours down internet rabbit holes searching for the *perfect* sofa, vacation package, computer mouse, girlfriend, movie, university program, wedding guest attire, medical diagnosis, or any other number of things. And, whether it's finding the best TikTok "life hacks," electric vehicle, or drought-resistant house plants, the many opportunities for fine-tuning, optimizing, and changing one's life in ways both big and small mean that individuals are now confronted with the possibility that there is a right or best way forward—and they just have to *find* it.

Furthermore, the smartphone's high-consequence presence has complicated the ancient notion of *kairos* by giving users the opportunity to make any moment they choose into one of rhetorical action, while also making users more attuned to the communicative potentials of both the digital and physical worlds. Because of the expectations users place on themselves and others to communicate, many people today find themselves unable to fully (or even partially) disconnect from their smartphones. Indeed, as Vorderer and Klimmt put it, the "fundamental fear of late modernity… seems to be the fear of losing this connection to the world" (64). To disconnect would mean to miss out on the *kairotic* moments waiting to be capitalized on and to suffer disconnection from existing and potential interlocutors.

The following section will examine how these compounding layers of captological design operate on a procedural level.

4.3 The Procedural Increase of Consequentiality

Having considered the smaller captological elements of microsuasion that increase the consequence of the smartphone's address, I will now examine some broader persuasive arguments that emerge through the processes in which it is utilized. As Bogost writes, "[w]hen we do things, we do them according to some logic, and that logic constitutes a process in the general sense of the word" (7). What logics are informed by the processes enabled by smartphones, especially those that increase a sense of consequence? I will argue here that they are the **logic of visibility**, the **logic of the archive**, and the **"kairo-logic" of "right time,"** a term I borrow here from Taina Bucher. As my discussion of these logics will demonstrate, certain aspects of smartphone usage increase a sense of consequentiality both for individual users and for the corporations who profit from users' activity on social media and internet sites. Although I will focus mainly on individual perceptions of consequence, this bigger picture is important to keep in mind, because ultimately it is these corporations who author the arguments that in many ways structure both individual and social life in the digital era.

4.3.1 The Logic of Visibility

> *What was private became public. What was unique became mass-produced. What was hidden in an individual's mind became shared.*
>
> – Lev Manovich, *The Language of New Media,* 61.

The first logic that reveals itself in the smartphone's consequentiality-altering address is the logic of visibility—a logic that emerges from the many smartphone-related procedures that emphasize visibility. This logic is not new; Yves Citton cites sociologist Gabriel Tarde, who

even in 1902 "understood the way in which attentional alignment structures a whole new economy of visibility whose currency is 'fame', defined as 'the simultaneity and convergence of attention and judgment on a man or event which then becomes well-known or famous'" (5). Citton himself speaks of an "ontology of visibility" that "*measures a being's level of existence by the collective attention quantity and quality of its perception by others*" (45). This logic is exemplified by common-sense notion that "everyone who's anyone is online." As Pettman observes, "[t]oday, the very status of something as having value is determined by its digital appearance, and all things that are not in the database wink into irrelevance or even nonexistence… If you don't show up in a 'search,' then your very actuality is at question" (111).

The logic of visibility has strong similarities to Han's concept of transparency and the logic of recognition discussed in Chapter 3, in that visibility also requires bringing one's private life to light in the public sphere. However, the logic of visibility refers specifically to making oneself *visible* (literally, able to be seen), while transparency is being *see-through*[137] and the logic of recognition is about a *mutual seeing* (acknowledgement) of the Other. Visibility does not have either the connotations of necessary truthfulness and disclosure or the requirement of mutual acknowledgement—although in some circumstances, these do occur.[138] This logic is made more consequential through two key smartphone-facilitated procedures: the process for visibilizing thoughts and feelings, and the process for visibilizing

[137] Though, Han writes, with transparency, "[e]verything must become visible. The imperative of transparency suspects everything that does not submit to visibility. Therein lies its violence" (Han 13). From a psychoanalytic perspective, the violence also lies in the fact that as a person's interior life is increasingly visibilized, other parts of the individual's self must be severed and pushed deeper into the shadow(s).
[138] For example, consider the expression "I feel seen," which is used to describe "a state in which a part (or parts) of our identity, emotions, needs, and/or physical presence get fully recognized through various means—such as representation, validation, support, and/or inclusion" (Pineda n.p.). This expression implies mutual recognition, especially in a therapeutic psychological context, but it is often used by young people when they see a particularly accurate meme or tweet that resonates with their experiences. In this sense, the individual may "feel seen," but they are not being genuinely recognized as an individual. Rather, they feel seen because the experience they have had that makes the meme or tweet resonate is shared by other (unknown, and often unknowable) others. There are even lists of memes online that promise to "make you feel seen"—but that clearly make assumptions about the audience for such lists (I looked at several lists and did not, through any of the fifty plus memes, feel seen).

oneself in the world. These align with the four tenets of "attention capitalism" Citton identifies: the "principle of valorization through attention," "a vital need for notoriety," a "circular self-reinforcing dynamic [of] *attention attracts attention*," and the potential for "profit from opportunist visibility" (47-50). The many smartphone-facilitated procedures emphasizing visibility synthesize Citton's tenets into this clear argument: *the more visible you are willing to make yourself, the more you have to gain*.

Let's start by looking at procedures surrounding visibility on a mundane, everyday level. The ever-increasing opportunities that the smartphone offers to capture, produce, and share content of all kinds (combined with the decoupling of temporal and spatial constraints that formerly limited communication) mean that users are now able to share feelings, thoughts, opinions, and experiences that past generations never would have publicized for a mass audience.[139] Manovich, writing in 2001, asks the still-pertinent question: "What to make of this modern desire to externalize the mind?" His response:

> [This desire] can be related to the demand of modern mass society for standardization. The subjects have to be standardized, and the means by which they are standardized need to be standardized as well. Hence the objectification of internal, private mental processes, and their equation with external visual forms which can be easily manipulated, mass produced, and standardized on its own. The private and individual is translated into the public and becomes regulated. (60)

As a result of this increased emphasis on publicizing and externalizing private thoughts, mental processes that were formerly "unobservable and interior" and "uniquely individual" are pushed into the public sphere "as drawings, photographs and other visual forms" (60). Once in the public sphere—and circulated all over the Internet—these representations and mental processes can "be discussed in public, employed in teaching and propaganda, standardized, and mass distributed" (60-61). Because of this push for visibilizing and

[139] As a teacher tells his student in the 2010 film *Easy A*: "I don't know what your generation's fascination is with documenting your every thought... but I can assure you, they're not all diamonds. 'Roman is having an OK day, and bought a Coke Zero at the gas station. Raise the roof.' Who gives a rat's ass?" (Gluck, 49:01). (Thanks to Alexi for pointing me to this quote.)

publicizing internal mental processes, little annoyances that would have formerly passed within a few minutes are now published as tweets or status updates, made into memes, or shared as posts. The logic easily scales up as well, permitting capture of not only individual thoughts but also actions, events, and experiences. Embarrassing moments get twenty-four hours of fame on Instagram or Snapchat stories; the New Year's ball reaches zero to the silence of hundreds of people recording the moment on their phones; romantic getaways with a partner get broadcasted in detail for all of Instagram to see.

On a basic level, the consequence of these publications is increased by the sheer fact that users can express themselves and be acknowledged, or at least seen, in the online public sphere. On a higher level, consequence is increased by the ways in which active users can exchange online, intangible forms of symbolic capital (to use Bourdieu's term) such as Likes, followers, views, and upvotes. These signifiers of social or aesthetic value serve as tokens of symbolic power that quantify formerly un-quantifiable phenomena. Before the Internet (and, more specifically, social media), it was impossible, and ludicrous, to quantify exactly how many people felt favourably towards a certain outfit, hairstyle, location, or experience. Now, however, these tokens are considered crucial to the "success" of a given endeavour because they purport to capture or convey public opinion. For instance, Google Reviews and Yelp can make or break businesses, because they impact their literal visibility on online maps ("Show me only cafes with four or more stars"). The tokens of recognition or appreciation that people receive in exchange for their visibility act, to refer back to Fogg's model, as a means of operant conditioning: the more a person shares content that appeals to other users, the more they are rewarded with tokens of validation (tokens that are, as I will discuss in the following section, all too easy to dole out with little thought or investment). Savvy users are not only aware of these opportunities to produce content, gain power, or pass judgement—they actively anticipate them, since the quick-draw of a phone camera or sharp-witted tweet can be a means to gaining greater social (and potentially financial) capital.

The desire to showcase each moment as somehow special or worthy of note is, according to Andreas Reckwitz, symptomatic of the new middle class's desire for "successful self-realization," which "manifests itself particularly in its members' specific ways of forming, executing, and evaluating rather ordinary activities like eating, travelling, housing, parenting, and exercising" (translated in Vorderer and Klimmt 63). On a procedural level, when people see others doing this, they also want to participate in the sharing, so as to demonstrate their own success, intelligence, happiness, good fortune, or other flaunt-worthy features. (The expression "pics or it didn't happen" is apt here.) The smartphone thus becomes "the engine of users' ambition to involve both their significant others and technology in achieving episodes of the 'good life' on a daily basis" (63). Because of the possibility of social and financial benefit made possible by brand deals, partnerships, and collaborations, people do not want to be left behind or left out of this process of sharing. To do so would be to abandon Citton's tenets of "attention capitalism," ultimately losing out on potential valorization, notoriety, and profit afforded by high visibility.

This high visibility is made possible largely thanks to the smartphone's high-resolution camera, the latest visual technology in the long trajectory from the alphabet to film photography to cinema to digital media (McLuhan, Manovich). This intense emphasis on the visual, when combined with mobile computing and connectivity, greatly increases the consequentiality of people's appearance and conduct in the world—particularly when appearance and conduct can be capitalized on or made into a brand or signature. Some users even become, simultaneously, the willing subjects of the paparazzi and the camera holders themselves. These users, commonly known as "influencers," have emerged on many social media platforms, inviting other users to witness and "follow" their lives. The "process" of influencing is the logic of visibility taken to the extreme: influencers exchange their privacy and time for financial or social gain, which is attained through the heightened visibility of their lifestyles, bodies, purchases, talents, or personalities.

What makes an influencer an influencer? Chen Lou notes that there is "a fine line between influencers and celebrities," with the key difference being that "celebrities who are

famous for theatrical talents, such as acting, singing, or sports, often have gained their fame through traditional media, such as movies, TV, and radio" (4), while social media influencers "are often popular social media personalities who constantly create and disseminate useful and organic content within a knowledge domain" (6). Influencers "project authentic personae, curate intimate relations with a large following, and thus wield influence over followers' purchases and decision making" (6). So, while professional and semi-professional athletes, performers, musicians, and actors can use social media for self-promotion (increased visibility) and to secure endorsements and partnerships, they're not exactly the target population under consideration here. Rather, I'm talking about individuals who become "famous" because of their dedication to growing their online followings from the ground up by constantly producing highly engaging and consumable content—and, in the current iteration of social media, by learning how the algorithms work in order to further boost that content.[140] The designation can refer to artists, financial advisors, or proponents of specific lifestyles (such as off-grid living or even military involvement[141]), who visibilize and broadcast their unique talents or interesting lifestyles on social media to gain greater social and financial support. It can also refer to "everyday influencers" who focus on different niches, such as lifestyle, cooking, exercise, travel, and finances (to name just a few of the most popular niches cited by online marketing sources).

What is important about these everyday influencers *in particular* is that, whether they're promoting gluten-free living, gentle parenting, or sustainable crafting, they are really just regular people with a knack or eye for a given niche. Compared to celebrity culture, this type of internet personality is far more persuasive in terms of the logic of visibility when we consider the procedural argument being reinforced: that this could be *you* if you just put in

[140] For example, on TikTok, if a user is not posting frequently (i.e., several times a day), the algorithm will push their content down and not "recommend" them to other users. The only way a user can keep up with this expectation is to keep their phone with them, poised and ready to share, at all times.
[141] As seen with "Army Influencers" like American Hailey Lujan and IDF military reservist Natalia Fadeev, whom many have accused of being "e-girl PSYOPs" participating in government ploys to encourage army enlistment.

the time and dedication to visibilizing yourself.[142] Through this procedural argument, reinforced by the trajectories of various online stars on different platforms, the creators of social media encourage further participation by implicitly asserting that stardom is possible for whoever is willing to devote themselves to achieving it. This logic dovetails well with Han's discussion of the "tyranny of positivity" in *The Burnout Society.* In today's society of positivity, individuals are made to feel that they can be anything they want to be—a conviction that social media influencing and smartphone culture support through the emphasis on maximizing visibility in the attention economy. This potential can be seen as a positive, because society is no longer a society of the "should" (Freudian discipline) but rather a society of the "can," as in, "*You can do it!*" But rather than this achievement potential being truly liberatory, it really just ensures that individuals exploit themselves as they voluntarily participate in "playbor," which Yves Citton defines as "an inextricable combination of playful pleasure and productive labor [that makes] the Internet into an unstable and disconcerting mixture of playground and factory" (65). This view also puts the onus on individuals for their ultimate success. If everyone has the same twenty-four hours in a day and the same iPhone 15, the logic goes, then only a lack of motivation and enthusiasm is to blame for failure. The more influencers there are on social media, the more strongly this logic is reinforced.

A particularly extreme example of the logic of visibility and Han's society of positivity is OnlyFans, a subscription service that allows users to create X-rated content for their subscribers. OnlyFans enables users to profit from visual exposure of their bodies for other, mostly anonymized users. There are few restrictions on who can participate, and as long as the user has the desire and dedication to set up their account, regularly post photos or videos, and communicate with their "fans," they can (ostensibly) quite easily exchange

[142] Referencing Andy Warhol's 1968 assertion that "anyone can be famous for fifteen minutes," Chris Stokel-Walker writes: "On TikTok, anyone with a mobile phone can become known to hundreds of millions of people for a matter of seconds, and then slip back into anonymity. True, a run of successful self-shot videos can propel an individual from an everyday life into that of a multi-millionaire… however, the metamorphosis from ordinariness to fame occurs not through the multiple media channels of Andy Warhol's age, but through a single, super-fast, ever-mutating social media app" (1).

visibility for profit. Top-rated producers can amass massive followings (and fortunes) as a result of their content creation. For example, adult actress Mia Khalifa has close to twenty-three million OnlyFans followers as of 2024; another top content producer, Blac Chyna, reportedly makes twenty *million* US dollars per month (Wise n.p.). It is important to note that Mia Khalifa and Blac Chyna have likely only succeeded to the extent they have because they are already famous in the adult entertainment industry. However, seeing the possibility of such success makes everyday people more likely to believe that that this sort of attention, fame, and money is possible through participation. Thus, while we might not call this "influencing," exactly, there are many similarities in terms of the structure of use and rewards system.

In all the cases discussed here, influencer visibility involves a sort of vulnerability—a "pulling back" of the curtain to reveal aspects of the person's life that normally wouldn't be seen by others (allowing a look "backstage," to put it in Goffman's terms). As Daphné B discusses in *Made Up: A True Story of Beauty Culture Under Late Capitalism*, vulnerability and sharing is paramount in the influencer-follower relationship. For the beauty influencers she discusses, vulnerability can take the form of a bare, makeup-free face or a divulgence of what's going on in that person's personal life, such as mental health challenges. The feeling that the influencer is revealing something *to* the user and sharing a secret, even though there are millions of others in on the secret, is a crucial aspect of forming the sense of trust and attachment[143] so integral to trans-parasocial relationships (Lou). Unlike previous understandings of parasocial relationships, which are strictly one-sided, trans-parasocial relationships function through reciprocal interactivity (either synchronous or asynchronous) between the influencer and their fans, as seen with livestreamed "Ask Me Anything" sessions, polls, giveaways and other means of facilitating contact (Lou). However, in many cases, moments of "vulnerability" or of interactivity with fans are actually opportunities to

[143] As Han writes: "According to the ideology of intimacy, social relations prove more real, genuine, credible, and authentic the more closely they approach the inner psychic needs of individuals" (35).

plug particular products or brands—thus creating visibility for the recommended companies while also ensuring further visibility for the influencer.

Through these methods of engagement and disclosure, the "bonds" between influencers and their followers grow—while also increasing the overall visibility of the influencers' profiles, which are algorithmically boosted based on the number of interactions and followers. Visibilizing oneself is thus also a process of *exchange*, whereby information, time, and effort is exchanged for greater social or financial capital. The process of exchanging Like for Like, story share for story share, money for products, etc., is designed to increase visibility for both (or all) sides involved. It fits very neatly with Citton's axiom of "attentional symmetry: if you want *to get any attention, you've got to give attention*" (58). Again, this can offer short-term or even long-term benefits for the parties involved, especially when they are lower or mid-tier influencers (such as artists, fashion designers, or craftspeople) who do not have the advantage of millions of dollars to spend on marketing. However, it is crucial to remember that these efforts at cooperation to raise status or visibility are entirely subject to the dictates of the social media platforms' algorithms. In the case of artists, specifically, Sophie Bishop describes the issue of "influencer creep," wherein creatives are increasingly required to adapt their artistic production to the desires of their followings and the dictates of the algorithm. In cases such as this, the sense of consequence attached to co-operative processes of increasing visibility can be very much overinflated, because it relies on the perception of control and empowerment (as discussed in Chapter 3) and yet is, at base, determined by factors largely outside of the users' control. Ultimately, if the algorithm "decides" that a person's post doesn't fit with what people "want to see" (Bucher), then no amount of posting or cooperation will change that (and, when the user is not informed of this "decision," this is known as shadowbanning).

Because of this ultimate lack of control, the argument posited by the procedures surrounding visibility—*the more visible you are willing to make yourself, the more you have to gain*—can very easily become a false promise. Users may fall into the trap of pushing for increased visibility in ways that compromise their relationships, mental or physical health,

or privacy (to name just a few of the foremost "exchanges" that people make). However, these potential pitfalls are often forgotten amidst the sheer number of opportunities for visibilization that the smartphone permits. These opportunities and procedures form a logic in which, as Citton says, "*you are valued at the value of the attention you are given*" (70). In this logic, the more attention (visibility) someone receives, the more valuable they are.[144] That point is certainly true in one sense: the individual becomes extremely valuable to the capitalist system and social media sites that profit from the engagement and buzz generated from such attention. But, while the individual might also profit by proxy, it is not their gain that the system is designed to ensure. Rather, it is that of those who built the (infra)structures on which this argument is constructed.

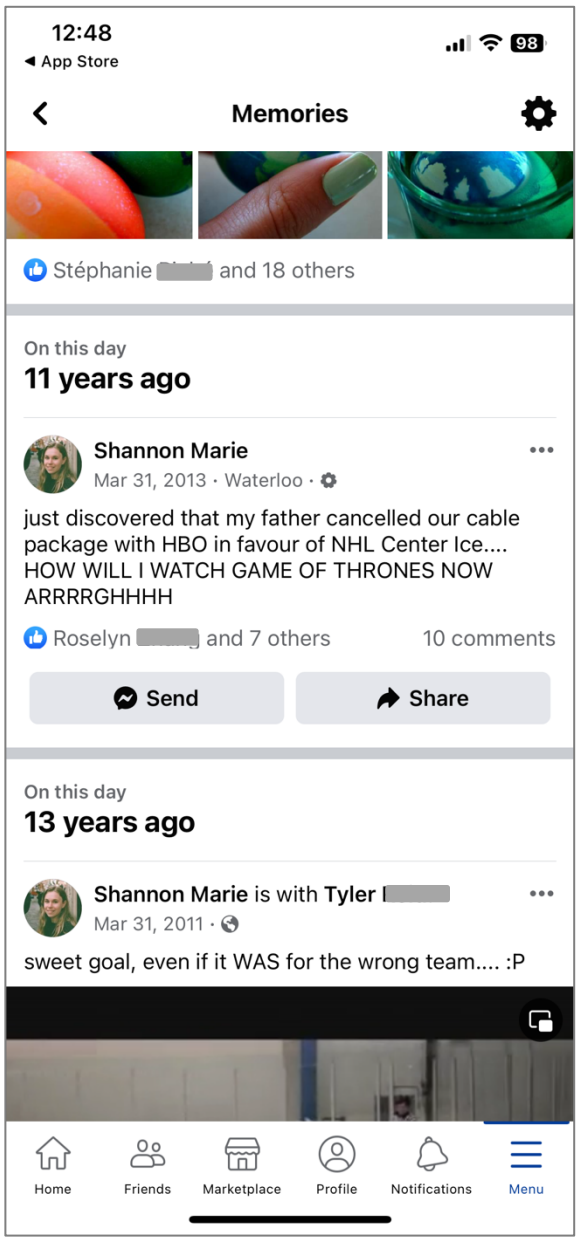

Figure 11: "Facebook Memories

4.3.2 The Logic of the Archive

The past is integral to our sense of identity… [the] ability to recall and identify with our own past gives existence meaning, purpose, and value.

– David Lowenthal, *The Past is a Foreign Country*, 41.

[144] He calls this the phenomenon of "hierarchization by attention aggregation" (70).

As I have discussed, the smartphone serves as an important tool for documenting and capitalizing on the present in order to increase one's visibility. This ability to accumulate various snapshots of the present, combined with the archival nature of social media and many messaging systems, means that the smartphone also serves as archive for reliving or remembering the past. Stalking an ex on Instagram, deleting photos to free up storage, posting "#latergrams," using the "search" feature in messaging platforms, and watching old concert videos (if anyone actually does this!) are just a few examples of ways that the smartphone enables users to invite the past into the present.

Beyond this user-initiated curation and searching, "social media's automated systems are actively sorting the past on behalf of the user" (Jacobsen and Beer 2). "Facebook Memories"[145] (Figure 11), "For You" iPhone photos (Figure 12), and "Snapchat Memories" are all examples from "prominent media [that] now seek to do the

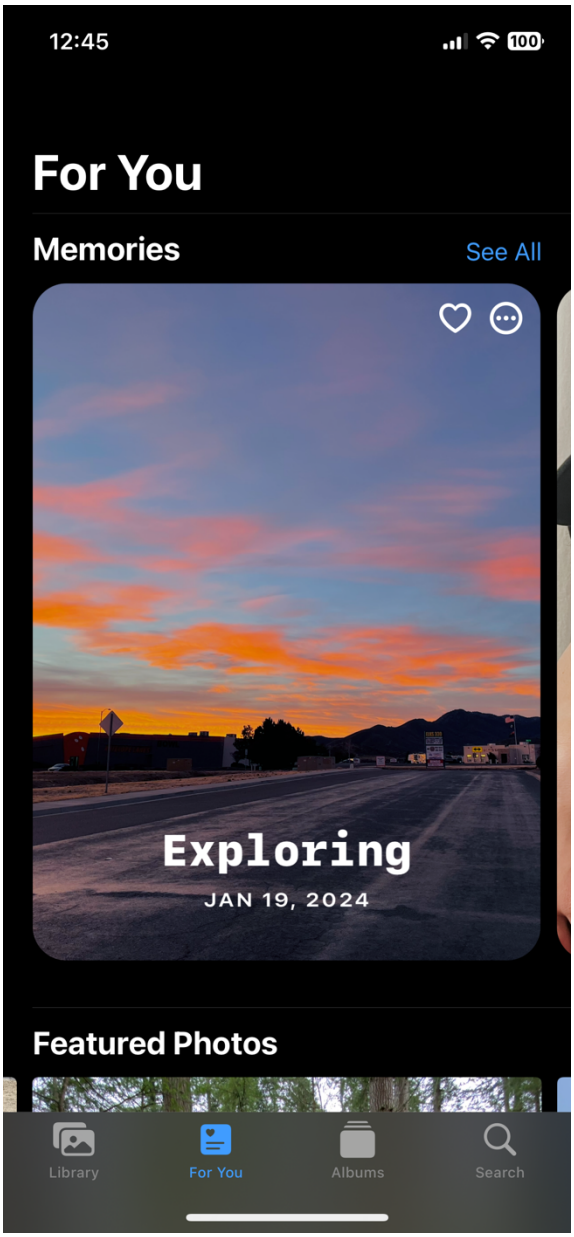

Figure 12: iPhone's "For You" photos

[145] For an extensive treatment of Facebook, see Davide Sisto, who notes that "Facebook's (ongoing) metamorphosis can be seen in the fact that *looking back* has been its most important feature for some time now," as evidenced by the "perennial exhumation of what has happened within it" made possible by the "Memories" feature (4).

digging for us" (4). That is, rather than requiring users to sift through the digital morass of uploads and posts, "these media aim to automatically select and deliver pre-packaged memories" (4). Although users can, of course, still go digging for this content, there are more and more "platforms that use the vast accumulated details of our lives, as held in our profiles or in the galleries of our devices, to identify and make visible what they themselves often refer to as 'memories'" (4). Thus, on two levels—the individual intentional and the algorithmic automatic—the smartphone has become, in a procedural sense, entrenched in the *process* of capturing, rediscovering, and reliving memories and moments.[146] This positioning of the smartphone informs the logic of the archive, which heightens the consequence associated with capturing (an important choice of words here) or saving (also an important choice of words) various moments in life.

For example, Jason Kalin and Jordan Frith discuss how smartphones help users build "memory palaces" through locative tracking and check-ins. The authors explain that "[t]he person using wearable technologies and location-based applications to check in creates a personal 'affective network' that binds together embodiment and mobility with place and memory" (228). The hybrid memory palace "enacts this binding together, allowing its builder to construct experiences of everyday life that matter not only for the reconstruction of her past but also, in subtle ways, her engagement with the future" (228). Kalin and Frith see this as a positive because "the hybrid memory palace instills in its builder a sense of agency" (228). However, one might easily imagine a situation in which being "bound" to a place in such a manner can become stressful, uncomfortable, or even depressing. Harris gives the example of how Timehop, an app that creates a time capsule of one's previous actions on a given day, had to remove the SMS text function because users were constantly being reminded of conversations or people that they would rather leave firmly in the past. My fear with the hybrid memory palace is that users might become more concerned with documenting locations than with actually experiencing them. Speaking of this drive to

[146] And, indeed to "[managing] life memory," as Gemma San Cornelio writes, drawing from Serafinelli (7). See also Harris on "reminiscence," pages 33, 45, and 149.

archive more generally, I believe it often comes up because people *want* to capture and remember the consequence of a primary experience, be that a birthday party, a child's performance at a church pageant, or a winning overtime goal. However, when the primary experience is made subordinate to the documentation process, it results in an inability to fully absorb the actual experience in itself (something I will discuss in the second half of this chapter).

On a broader level, the ability to rewatch and relive moments not only from users' own lives but from the lives of millions of other people around the globe greatly increases the sense of consequence associated with *everything* that happens, because users get the feeling that nothing ever really disappears from the Internet.[147] As Ekaterina Haskins writes, because "everyone can now engage in a free search for one's past and identity, becoming [their] own historian… virtually everyone can also leave an imprint on the fabric of public memory by sharing images and stories with millions of other users" (408). In terms of online presence and conduct, even small and simple actions that come from basic phone functions or options—unfollowing, liking, screenshotting,[148] or choice of emojis—are imbued with high consequentiality. Furthermore, because of the increased visibility of individuals' online behaviours and pasts, users have to contend with personal conduct and emotion management not only in the real world, but in online spaces as well. This doesn't just double the amount of concern required—it multiplies it exponentially. People can break up over their partners' Instagram activity, cause tabloid uproar over a deleted profile (such as Megan Fox's Instagram profile in 2023), or even be fired for liking tweets (as happened to the Toronto Marlies' goaltending coach in 2021). These smartphone-facilitated actions might seem very inconsequential because they can be achieved in quite literally a single second with a finger tap or two, but the consequences of those finger taps can have drastic and permanent

[147] Think here of the many individuals who have been "memeified" without their express permission and had their images (often with compromising or unflattering expressions or poses) circulated many thousands of times.
[148] For instance, Tamara Kneese considers screenshots as both "mourning objects and research tools "(144). See also Jan Švelch's work on screenshots and screen capture practices.

consequences. This is not to excuse poor or thoughtless behaviour, but rather to point to the skyrocketing potential for consequential outcomes associated with so many different aspects of smartphone-facilitated interaction.

Because every action online that goes public can presumably be screenshotted or otherwise saved or downloaded, users really can't predict when or where their online present or past will resurface. Given that "the possibilities of digital memories come to intervene in the way that the past is made and remade, which in turn feeds into notions of the self," online scandals or missteps can have tragic consequences (Beer and Jacobsen 5). The cases of Amanda Todd (as discussed by Harris), Channing Smith, and other teenagers who committed suicide due to cyberbullying[149] stand as testament to this belief in the seeming permanence and inescapability of the past (and its corresponding effect on the present-self) within the digital sphere. People's pasts can feel hypervisibilized online and may be displayed in ways beyond their individual control. There are actually now laws surrounding "the right to be forgotten" (RTBF) in the European Union, but as of 2024, neither Canada nor the United States has an official RTBF policy (although in 2023 Canada's Federal Court of Appeal recognized the RTBF in a case against Google).

Today's state of affairs is drastically different from any other era in humankind's past. For all of history, individuals maintained a kind of neutral obscurity. Even a famed monarch's visual appearance (without their telltale royal regalia) would only be known to a small number of people. And even with the creation of printed portraits on coins, pamphlets, and other copyable materials, it was not, for most, a difficult task to change one's appearance and thus preserve individual privacy. This, of course, came with its own challenges, but it did represent a drastically different relationship to one's (literal) appearance in the world. In the twenty-first century the possibility of maintaining that neutral obscurity, both in the social sense and the literal sense, is growing increasingly unlikely. Socially, it has become very difficult to succeed in life without an active online presence, especially for younger generations who are expected to keep their careers (and

[149] Termed "cyberbullicide" by Ariel Schonfeld et al.

lives) visible and public-facing.[150] On a literal level, thanks to the increasing integration of face recognition technologies and biometrics, individuals' facial features are covertly or overtly captured under the premise of security measures; as early as 2001, facial recognition technology was being employed during the Super Bowl by law enforcement officials (a move that received great backlash for its potential violation of the Fourth Amendment[151]).

Across this discussion of the archive and preservation, the figure of *Metanoia*—regret personified—looms large. As Kelly Myers, in Greek and Roman ekphrastic poetry, *Metanoia* is depicted as a veiled woman who follows the god *Kairos*. The two travel together until the opportune moment appears, at which time a person either recognizes the moment and seizes it or misses their chance and suffers disappointment. The name of mega-corporation "Meta" seems a strange coincidence given that the social media platforms they run contribute to feelings of regret, anxiety, and "Fear of Missing Out"—even as they allow people to capitalize on moments and highlights from day-to-day life. Myers notes that the experience of *metanoia* can also provide an opportunity for people to learn from their errors and capitalize more effectively in the future (here we see how the term is used in Christian doctrine to refer to "an act of repentance that leads to spiritual conversion" [8]), but that does not seem to hold true in this situation. The possible responses to recognizing one's failure to act (or respond) correctly are not, in the case of smartphone usage, necessarily healthier for the individual, but may in fact lead to an increasing obsession with one's smartphone or the platforms it supports. By offering so many means to bring the past into the present, the smartphone constantly calls attention to the need to hang on to the past *and* the inability to truly get it back. The procedures it facilitates around the preservation and archiving of the past thus produce a strong argument for the need to capture and keep as many moments as possible in order to avoid the potential of regret (or FOMO).

---

[150] As Jaron Lanier discusses in *You Are Not a Gadget* (70-71).

[151] "The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized" (*The Constitution*)

4.3.3 The "Kairologic" of "Right Time"

I want to conclude this procedural rhetorical consideration by returning to look at some specifically time-related anxieties. The contemporary "algorithmic media landscape" is one that "hinges on producing and acting on relevance, timing, and personalized time regimes," which makes it an increasingly difficult landscape for individuals to navigate (Bucher 1701). John Gallagher's notion of "machine time," which weds *kairos* and *chronos* (what Kelly et al. denote as "linear, quantitative time" [230]) is helpful here in considering how both algorithm- and human-driven interactions impact people as they move through their daily lives. In a social media environment, because of the role that algorithms play in curating timelines, users must take *chronos* into consideration when deciding how and when to engage online. This consideration is necessary in determining the *kairotic* moment from the flow of chronological time as it passes by because, Gallagher explains, *chronos* is no longer simply empty time waiting to be punctuated by moments of *kairotic* inspiration. Rather, *chronos* itself, when factored into the way that algorithms work to push certain content, becomes something for users to contend with, to play with according to their ends.

Because of their emphasis on measuring and recording time, mobile messaging systems lead to a whole host of time-sensitive considerations about procedures of engagement that past generations could never have imagined: "*If I post now, then no one will see it until after work…" "I forgot to Like this comment; is it too late now?" "I accidentally Liked a photo from 2019! Will the poster judge me?" "Have I waited long enough to respond that I sound interested, but not desperate?"* These questions, Gallagher says, "emerge out of the *chronos*-based timestamp; yet, they are transduced into *kairotic* understandings of online engagement with additional context" (530). In other words, these anxieties are, at base, *kairotic* concerns, in the sense that they are concerns about missing the proper moment to reach out or respond. However, such an understanding of the *kairotic* moment springs from a situational awareness of *chronos* and of the passage of quantitative time, be it minutes, days, months, or years.

It is important to emphasize how amplified these concerns are in the "smartphone society" (Aschoff) we inhabit today. In the past, people's wait times were determined by the speed at which a message could physically travel through space (Farman). Expectations around waiting were thus determined and conditioned by the physical limitations of the medium.[152] Now, however, online communication is instantaneous, and so other factors can come into play when determining response time: the urgency of the message, the power dynamic between sender and receiver, the number of competing addresses, and many others.[153] Vorderer and Klimmt note that contemporary "communication-related expectations" with smartphones often "result from intensive smartphone use in the past. These expectations guide users in approaching and interpreting communication situations, in regulating their own emotions, in solving problems, and in making decisions and interacting with others" (57). No two users will have precisely the same philosophy for how to handle responding to messages within specific timeframes, since so much of how and when smartphones are used is dependent on factors that are extra-contextual to a conversation (and therefore often invisible or unknown to the interlocutor). This is where the lifelines discussed in Chapter 4.2 can become strained. When users have different expectations for the appropriate timeliness or content of exchanged messages, there are more likely to be discrepancies in the perceived consequentiality of these messages, resulting in either party experiencing an increased sense of consequence attached to sending and receiving messages. These discrepancies can result in interactions that "feel warped and treacherous; especially for those who have internalized the more analog protocols and niceties of interpersonal discourse" as people are forced to "communicate within a new kind of space-time discontinuum" (Pettman 69).

---

[152] Farman tells us that "[t]he human perception of time shifts along with the technologies of an era and is often influenced by the cultural sense of how the pace of life is being altered by new technologies. In other words, what it means to wait for a message changes from era to era. Waiting is experienced in its context rather than in the actual hours, minutes, or even seconds someone is kept waiting" (52).

[153] "To leave your correspondent waiting is either a sign of disrespect or a maneuver to communicate power to the sender. Messages that are not immediately responded to can communicate a perceived differential value of time" (Farman 158).

The lack of firm and collectively acknowledged protocols for contact has in some cases led to communication "rules" made to mimic natural *kairotic* moments based on chronological time. To take a banal example: consider the directive that a user should wait thirty to sixty minutes to answer their crush's text message if they want to, in the words of WikiHow's page on Texting Etiquette, "play it cool" (Jay and Rising). This rule is an artificially (or socially) constructed quantification of the qualitative, *kairotic* moment. The aim of this rule is that the crush will assume their interlocutor is too busy to respond immediately, which subtly or not-so-subtly indicates the crush's level of importance compared to the recipient's other friends or activities. Google G-Mail's prompts to respond to emails that are older than five days is a different yet similar example of "prompted," machinic *kairos* (Coleman), where the supposed rules that structure response times are baked into the mailing system. While Google's reminders may be helpful, they also condition users to think about their relationships to their mail service and email timeframes in a particular way. In both of these cases—and in the general digital sphere today—the logic that reigns is not that of "*real* time," but of "*right* time" (Bucher). The fact that algorithms dictate what content we see and when is a further indication of the increasing shift from real-time, chronological interactions to showing the "right content at the right time" (1699).

4.3.4 Conclusion

In this section I have highlighted three logics that contribute to the increased sense of consequence created by the smartphone: the logic of visibility, the logic of the archive, and the "kairologic" of "right time." Being able to share thoughts and emotions online can lead people to place increased consequence on externalizing their inner states (and on these inner states as well), which, depending on the contents of this externalization, can have either real or perceived consequences. Someone expressing their loneliness in a Facebook post may find that this loneliness is either amplified (if no one reacts to the post) or assuaged (if the post garners enough sympathetic engagement). If a student posts about their desire to harm another classmate, they will likely experience the real-world consequences that follow such

a threat, assuming that the post is reported to the authorities. On a larger scale, influencers really can "make their fortune" post by post, follower by follower; the consequence of visibilizing their lives is concrete, with much to be gained in success. The logic of the archive also has consequences that can be detrimental or, in their extreme form, even deadly (as in the cases of cyberbullicide previously discussed). Lastly, the "kairologic" of "right time" speaks to a generally lower-level but pervasive sense of consequentiality that revolves around the construction and maintenance of smartphone-facilitated relationships and boundaries.

These logics, although all also found in computer culture more generally, are greatly exacerbated by the constant presence of the smartphone. This constant presence enables users to capitalize on a range of potentialities for visibilizing, preserving, or connecting with others. By enabling users to capitalize in so many ways, the smartphone becomes further integrated into various procedures of everyday life—and, indeed, becomes essential to these procedures, as my discussion of the digital default in Chapter 2 addressed. In the following section, I will explore the flip side of this consequentiality coin by discussing several ways in which the smartphone captologically and procedurally *reduces* a sense of consequence associated with its use.

4.4 The Captological Decrease of Consequentiality

I now turn to the opposite side of the coin: the captological *decrease* of consequentiality for users. The smartphone invites (to invoke Sonja Foss and Cathy Griffin's invitational rhetoric) users' engagement very differently than previous communications technologies. This development is largely due to increasingly sophisticated user interfaces and software systems that allow for seamless user experience to occur, whether that experience involves making purchases, viewing media content, or making posts on various social media platforms. The novel ability for rapid action streamlines complex processes into the most simple and efficient means possible; it also shifts the expectations users have for the smartphone-enabled processes that have become integral to daily life. I will first examine

the decreased sense of consequentiality resulting from the physical mechanisms by which users operate their phones, because this has everything to do with how and why the smartphone is so persuasive. I will then discuss how the smartphone's simplified mechanisms for action make it easy for users to project content into the world without full thought of consequence. I will address the ways in which the smartphone's address requires short doses of attention to many tasks in quick succession, and how this fleeting address also deflects attention from the rationale behind checking one's phone in the first place. Lastly, I will explore how the smartphone decreases distance across time and space. I again want to emphasize that there will be contradictions between these assertions and those in the previous section—and to remind readers of the role that smartphone designers and manufacturers have in this shifting sense of consequence.

4.4.1 Mechanisms of Use

Based on Fogg's understanding of persuasive technology, the smartphone is an ideal tool for communication because it relies on a simple yet effective means of operation: finger taps. The use of finger taps follows Fogg's principle of reduction (and "mobile simplicity") which centres on "[u]sing computing technology to reduce complex behavior to simple tasks," thus increasing "the benefit/cost ratio of the behavior and influenc[ing] users to perform the behavior" (255). It is noteworthy here that the *same* mechanisms are used to achieve a number of different ends. Purchasing a new TV on Amazon can be done with just a couple finger taps, especially if credit card information is saved in the phone's wallet[154]; showing affirmation for someone's engagement is as simple as double tapping a heart[155]; wishing a friend "Happy Birthday" can now be done in two taps using pre-written options provided in the comment box (see Figure 13). These processes take a negligible amount of time, money, and effort compared to going to a brick-and-mortar store to make a purchase, writing a

[154] In fact, Amazon patented their "Buy Now" button in 1999 because they knew that making users input *all* of their information for *every* purchase meant that people were less likely to make purchases.
[155] In 2019, Facebook users generated four million Likes every minute (Smith n.p.), a statistic that exemplifies the simultaneous speed-up of the exchange process and the reduction of the meaning behind these interactions.

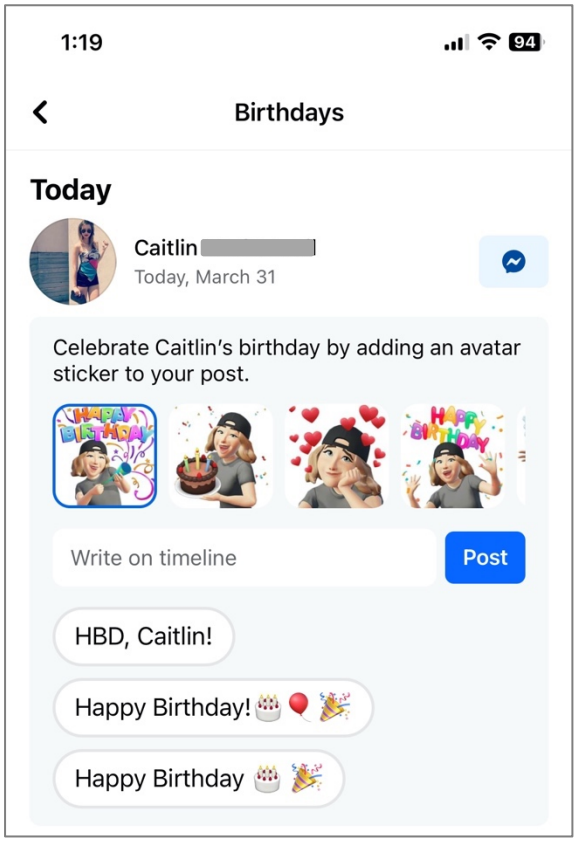

Figure 13: Birthday prompts on Facebook

congratulatory letter to a newly betrothed couple, or selecting, filling out, and mailing a birthday card. That is, the process of purchasing products or engaging with others is no longer a drawn-out event that involves multiple brain processes and physical actions, but can be achieved very quickly and simply through the smartphone. Furthermore, after completing an action, users often only see the results of their actions in a simplified form that vastly reduces the complex processes set in motion by a single tap. For example, making an online purchase sends an email to your inbox notifying you that the package will arrive in ten days, a vast reduction of the logistical process involved in moving commodities across countries or continents with the simple tap of the "Pay Now" button. (And, of course, the consequence associated with this act of purchasing is further reduced by many online retailers' generous and relatively painless refund and exchange policies.)

The simplicity of this mechanism of use is itself persuasive, because so little is demanded of the user (as long as they have sufficient dexterity and eyesight) and yet so much is possible. Indeed, it goes far beyond the "mouse and the pen-based interfaces [that] allow the user the immediacy of touching, dragging, and manipulating visually attractive ideograms" that Bolter and Grusin described in their 1999 discussion of immediacy (which is, they say, "supposed to make this computer interface 'natural' rather than arbitrary" [23]). The smartphone user does not need external implements to interact with or manipulate the

components on their screen—they can do so directly, in an *immediate* manner.[156] Tools such as voice-to-text and voice assistants further reduce the barriers to task achievement, circumventing even the necessary motion of fingers and permitting actions to be achieved by dictation alone. Of course, there are times these "magical" elements (Emerson 4) fall flat, such as when a user's hands are unable to utilize the screen as intended (whether due to muscular dystrophy, sweat, or injury), or their voice is not correctly translated into text (an issue experienced by some people who "don't sound like white Americans" [Rangarajan n.p.]). However, for "ideal" users, the smartphone interface is designed to be as frictionless as possible in its use. Who gets to experience this interface *as* frictionless makes a clear statement about what and who is considered ideal by smartphone designers.

4.4.2 Edit, Undo

Beyond the (supposed) ease of use in communication and onscreen navigation, there is another aspect of onscreen content manipulation that bears mentioning. As Boyle et al. write: "In the beginning was the word processor. It is in that moment—a supposed turn from an analog typewriter to a digital word processor—wherein we first see the effects of something resembling a 'digital rhetoric'" (251). It is also at this point in history that, "[u]nencumbered by the physical processes of loading paper into a mechanical device and free from the lasting material effects of a mistyped letter, *writing through a computer program illuminated possibilities of electronic*

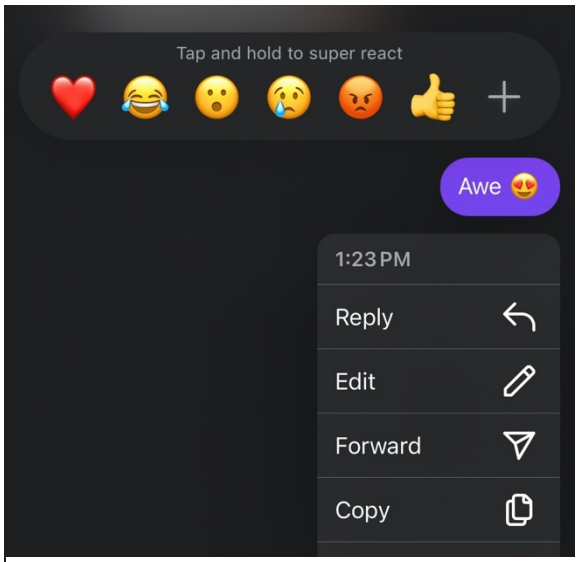

Figure 14: Instagram response options

[156] "The transparent interface is one more manifestation of the need to deny the mediated character of digital technology altogether. To believe that with digital technology we have passed beyond mediation is also to assert the uniqueness of our present technological moment" (Bolter and Grusin 24).

ephemera that would only endure if we chose to print a document" (251, emphasis added). What Boyle et al. are getting at is that the consequence attached to the actual act of producing content was drastically reduced with word processors, because there was no "physical copy." Instead, words could be easily typed, deleted, changed, or rearranged, without any significant difficulty for the user. That modularity and variability (Manovich) has extended far beyond traditional word processors, becoming essential aspects of editing photographs, arranging elements in a post, or personalizing avatars. The consequence associated with creating things in the physical world—things that cannot be easily reconstructed once deconstructed, such as a handwritten essay or paper collage—has been reduced by the "Back," "Undo," and "Edit" buttons that now accompany nearly all phone-facilitated actions. Messaging systems are now even including "Unsend" buttons to lessen the consequence of a poorly worded or improperly addressed message (see Figure 14). Therefore, not only does it feel easier for users to *craft* content to share, but also to remove or edit this content, should it be deemed insufficient or inappropriate for any reason. While, as discussed previously, there is the pervasive sense that "nothing really disappears from the Internet," particularly due to the simplicity of screenshotting and saving mechanisms, the ability to edit or remove posts is still important because it offers users a greater perception of control regarding their online exchanges (and personas).

The ability to edit also balances out the frictionless mechanisms that many messaging and social media apps permit, providing a small check against the ease with which content can be uploaded. This is important, given that there is a reduced sense of consequence associated with posting thoughts, images, or videos online—which is the next "zoom out" from the mechanism of use discussed above. The consequence of online engagement has been reduced both through the frictionless experience of the actual posting process and in the distancing from consequences that might be associated with saying or doing something in person. In other words, because these actions have become so simple and streamlined, they allow for a short-circuiting of certain brain processes that might act as brakes. This is especially true with the apps that encourage one-tap messaging, posting, and

sharing (which is most, if not all, social media and content sharing platforms). Consider how Twitter and Facebook feature the status update at the top of the home page, with Twitter asking, "What is happening?!" and Facebook leading with the more casual, "What's on your mind?" Options to react to, comment on, share, send, or save posts are easily accessible, located directly below the original content. Text messaging systems are similarly easy to utilize, and sometimes frictionless to a fault (such as when hitting the "Enter" button can cause a message to be sent prematurely). Because of how these interfaces enable and privilege interaction and action, users are supposed to be able to manage them very easily. This again demonstrates Fogg's reduction principle: people *like* technologies to be simplified in order to increase their ability to utilize and maximize them.

As discussed in the previous section, however, this is not always for the better. Sometimes it is so easy to project oneself into the online world that people post far more of themselves online than they might otherwise if the process was more difficult or time intensive. People can post things online that they would never say (or even admit to thinking) in real life, thanks to the "shield" of the screen in front of them. However, the illusion of anonymity or security or invincibility that induces these messages is just that—an illusion. A quick Google search shows a shocking number of social media posts containing racist, misogynistic, antisemitic, or other hateful messages that have led to expulsions from high school or university or dismissal from the workplace. It is noteworthy that Instagram actually has built in a function designed to prevent, or at least deter, people from making potentially dangerous or harmful contributions. In 2019, it unveiled an "anti-bullying AI" that asks users, "Are you sure you want to post this?" if it detects particular phrases or words

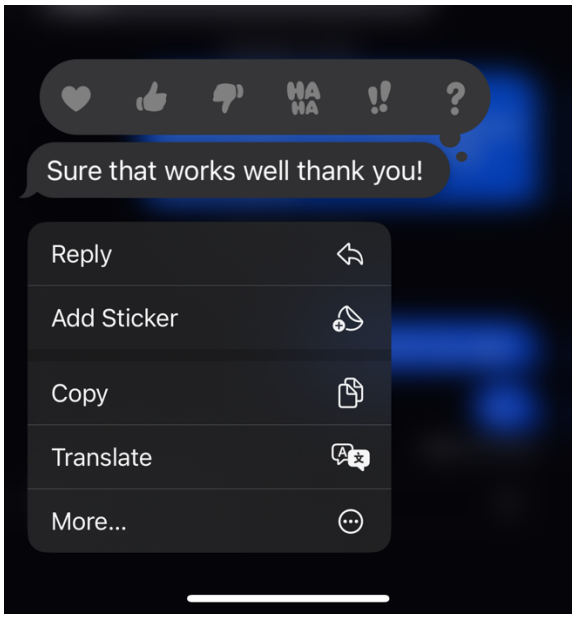

Figure 15: iMessage response options

associated with hate speech or bullying. The AI is designed to remind users of the consequence of their words, which can too easily be lost with the short-circuited process of thinking-to-posting. (Similarly, in 2020 Twitter introduced a "read before you retweet" message that prompted users to read the content they wanted to share before they actually could go ahead and retweet it.)

Beyond its ability for quick production, editing, and posting of material, the smartphone can also reduce a sense of consequentiality through its ability to produce or maintain distance in certain communicative situations. Although I will discuss this in 4.5.1 with the logic of the buffer, let's look quickly at the range of textual "supplements" that offload communicative responsibility and depth, such as emojis, stickers, reactions, and tapbacks. With these tools, not only is the actual physical process of sharing messages reduced in consequence (no more tiring out one's thumbs typing lengthy messages!), but also the consequence associated with the *content* of the writing. On this front, Bucher writes:

> While much of rhetorical theory has been concerned with *kairos* as an opportunity to say the right thing at the right-time (Kinneavy, 1986), algorithmic media already come with a predetermined set of options for a fitting rhetorical response. Click, Like, share, and comment, the system suggests–where speaking is no longer just an act performed for a human interlocutor but also a matter of 'speaking into the system.' (1710)

Emojis replace full words or even sentences, serving as a pictographic language of their own.[157] Tapbacks, a feature Apple rolled out in 2016, can indicate receipt of a message

[157] See Jing Ge and Ulrike Gretzel for an overview of emoji rhetoric.

through options such as “Haha,” a thumbs up, or the enigmatic “!!” icon (see Figure 15). These abbreviated and supposedly more convenient responses have actually opened the door for potential miscommunications to occur more often due to the lack of “practical consensus on what, exactly, tapbacks are supposed to be, or mean” (Bryan n.p.). Similarly, “reaction” buttons on social media allow users to react to a message with emojis, selected from either a preset range or sometimes the full list of emojis. The next big thing in this area is the increasing integration of predictive type programs built into writing applications (everywhere from Google Mail to iMessage to Microsoft Word macros), which further relieve people from the uncertainties of choosing how to respond (by actually *writing* the responses for them).

4.4.3 Conditioned Responses

As discussed in Chapter 2, the smartphone’s constant and connected presence on users’ bodies exposes them to frequent pulls and pushes that request—or demand—their attention. Because it is so physically easy to pull out the device to respond to these pushes and pulls, and because the response process often requires so little mental involvement, this response can become almost unthinking, automatic. To look first at how pulls to engage can become conditioned responses, consider how simple search queries often spill over into multi-app check-ins that end up taking far longer than the initial intention. The ease of cycling between applications and windows on the smartphone, accomplished with the swipe of a thumb or double click of the home button, allows users to jump from task to task. Thorhauge discusses this cycling in terms of “microroutines,” which are idiosyncratic patterns that users develop for checking specific apps in specific orders. Even when nothing of consequence is visibly present (i.e., no pushed notifications), users will continue to flip through these routines out of habit—and likely out of a desire to see something new and exciting, which the apps in the cycle all promise to deliver.

With pushed notifications, the conditioned response functions differently. When users receive notifications or messages from friends, they are not encouraged to stop and think about whether answering these pushed addresses is a good idea; they are only encouraged to

respond, which can be done as easily as tapping the message to open a shortcut to the app it came from. This form of conditioned response is easily entrenched because the smartphone's address can be attended to with relatively little disruption to whatever the individual is doing when the push comes in, be that chatting with a friend, sitting in class,[158] walking, or even driving. This dynamic is notably different from the "fear of missing something important" response discussed in the previous section, in which the user is constantly on high alert for important incoming messages. Here, they have simply become accustomed to the constant influx of messages and notifications that permeate and punctuate their daily lives with little doses of information, and so their response is more "autopilot" than active.

I want to give an example of how these smaller captological pushes and pulls give rise to "routes" of engagement with the smartphone. A Joycean stream-of-consciousness account effectively captures one such potential route: *I am watching a news update on Ukraine on Twitter when Mom texts with a question about my chocolate cake recipe; I switch over to my Safari tab to look up if coconut milks subs for almond milk. The page from my last search on gift ideas for my partner comes up, so before I forget, I go to add that to my to-do list in the "notes" feature. But wait, I had a note on here with gift ideas already… Come to think of it, there are three other ideas I forgot to add: new watercolours, a French press, and a new scarf. What was the name of that store with the nice scarves on King Street…? I should text my friend to ask, since we were just there last week. Or no, why don't I just look at my "Recent History" in Google Maps? Oh yes, right beside that nice cafe—I really should leave a review, while I'm thinking about it. My turmeric latte was so good with that dash of nutmeg on top!* In the approximate span of a minute, the individual has gone from watching, with furrowed brow, Russian tanks roll over Ukrainian soil to leaving a Google review for a cafe, and with several other mental "stops" in between. All of these leaps happened without

[158] I'm sure every instructor reading this can think of many instances where a student's eyes have strayed away from the board and down to their phone, placed neatly beside their laptop, to catch a glimpse of an incoming message or notification.

a single word being spoken aloud; the user travelled by finger taps alone, completely abandoning their initial task without even realizing it (because, as noted above, the ability to move from one task to another is so streamlined and efficient). Although the user might return to the news update later (or spot a newer one on their Twitter feed to watch), the point here is that it is all too easy to get whisked away from one thing towards the next.

This pattern of use is exemplified even more strongly in social media applications, which rely on a simple but effective mechanism already discussed in this project: the infinite scroll. The infinite scroll invites users to seek out new content through the simple pull-and-release mechanism (or swiping, in some cases). It is so easy to do that it can also become habitual, a tick performed over and over and over; Culp likens the experience to "being strapped in place for an exposure-therapy experiment, eyes held open for the deluge" (n.p.). The fact that the average user scrolled over ninety meters of content *per day* in 2018 (NetNewsLedger) is a strong indicator of the nonchalance with which individual contributions are treated. The sheer amount of content made available with the infinite scroll can decrease the sense of consequence associated with any one post, because the user is aware that there are thousands (if not millions) of other posts waiting to replace it—not only within each app, but across apps as well, because this same mechanism exists across many social media platforms.[159] To put this claim into perspective, consider these statistics from March 2024: over 300 million photos are uploaded to Facebook and ninety-five million to Instagram every day; 140 million tweets are made daily on Twitter; three hundred hours of video are uploaded to YouTube each minute; Pinterest has a total of over 175 billion pins (Stout n.p.). If users had access to only a couple of channels of information, as in the past, each channel would be endowed with far greater consequence, because there would be fewer alternatives clamouring for attention. However, as these statistics demonstrate, there is never a shortage of new content to consume across the many social media channels people access.

[159] I am aware that this assertion is the inversion of the previous section's point about the infinite scroll *increasing* the consequentiality associated with each pull of the "slot machine handle." However, my point in positing these contradictions is to show how the same mechanism can alter consequentiality in different ways simultaneously (or nearly simultaneously), thus further influencing users' experiences and perceptions.

Indeed, it would take just over 17,800 years of consecutive video-watching to watch all the current videos on YouTube—assuming no new videos were uploaded in the meantime (Hayes n.p.). I will discuss the effects of the *contents* of this content more in the following section, but for now it is important to highlight the simplicity of the physical mechanism by which information is achieved and displayed—and how this simplicity affects users' relationship to that information.

4.4.4 Here, There, Nowhere

I want to briefly discuss another flip side of the FOMO-inducing aspects of the smartphone, drawing from the captological affordances of portability, connectivity, convergence, and convenience that enable its constant presence. Because of these interrelated elements, the smartphone becomes a teleportation device that gives users a "window" into experiences of all kinds (Verhoeff and Cooley). Although the smartphone can contribute to the fear of missing out for certain users or in certain situations, in many circumstances its affordances can *decrease* the sense of consequence associated with real-world, real-time events. Because data can be transmitted across vast distances virtually instantaneously, the spatial and temporal distances that formerly set limits on who could be where and when are largely dissolved. As long as a user's smartphone has

Figure 16: Hockey and football at the IIHF World Juniors

sufficient connectivity and battery life, they will not have to choose between one event or experience and another—they can do both, simultaneously.

Consider the photo above in Figure 16, in which a Canadian hockey fan at the World Juniors Hockey Tournament in Sweden (2024) sits with a football game on his smartphone. His physical location (even thousands of kilometers away from home) represents no obstacle, other than time zone considerations, to the enjoyment of his regular sports-watching routine. This attitude has expanded, particularly since the pandemic, to many other arenas of life as well. Physical presence is no longer a necessity for engagement and interaction when one can participate virtually via computer, smartphone, or any other digital screen. As such, why pay thousands of dollars to travel to a European conference when remote attendance is offered? Why risk family members catching your flu at Christmastime when you can FaceTime them from the comfort of your bed? Why attend a graduation when you can watch students cross the stage from the best view in the auditorium (the camera's view), while still getting in your afternoon walk? Although I am sure readers can think of many answers to these "why" questions, the online alternatives are enticing, especially when cost-, distance-, or safety-related constraints come into the picture. Although many would agree that hybrid models can't *replace* in-person involvement, they *can* give people just enough involvement to feel up to speed and in the loop.

Furthermore, beyond giving users the ability to see (if not actually *be*) in two places at once, the smartphone also allows users to access the Internet's vast archives of past events and experiences anytime, anywhere. For example, even if the sports fan above couldn't livestream the football game during the hockey match due to connectivity issues, he could very easily watch it back at his hotel through the NFL+ app, which offers access to replays of all current-season games (in both full and condensed forms!). Essentially, as long as a user has their smartphone on hand, they are very rarely truly "out of the action." Whether in real time or with a slight delay, users can access and view content of all kinds and share in a diminished yet adequate version of "the real thing," whatever that may be. Through this tacit

awareness of the possibility of distant access (whether across space or time), the consequence of in-person attendance and participation is reduced.[160]

4.4.5 Conclusion

In this section, I have discussed the implications of the frictionless systems of interaction that the smartphone enables. I began by examining the mechanism by which the smartphone is operated, which reduces the sense of consequence formerly associated with writing technologies—and indeed, with writing itself *as* a technology. From a functional or utility-focused perspective, fountain pens, graphite pencils, and typewriters, while all means of producing graphic marks, do not have the same suasiveness as the smartphone's texting features. This is because they require much more input from the user and can only perform a single task (imprinting words on a page, either in ink or graphite).[161] Because it relies on finger taps (or even just voice), the smartphone seems more accessible and easier to use than these previously popular writing methods. The smartphone also offers a more direct means of enacting agency and control in the world (for better or worse) by transforming the effects of finger taps into tangible, real-world results in a matter of minutes or even seconds.

Smartphone interfaces also facilitate a reduced sense of consequence through the ease with which content can be created, edited, posted, and accessed. Furthermore, the sheer ease of use enables smartphones to be picked up and engaged with anytime, anywhere. This makes it easy for users to forget about the consequences associated with using phones in certain places (such as in class or during important events), even as it enables them to participate in experiences that would have been previously inaccessible due to distance or timing. In the final section, I will examine how these simple and efficient means of interacting and acting create broader arguments that structure social relations and expectations.

---

[160] Pettman says that social media—and I would agree that this is true of smartphones to an even greater extent—"encourage an unsettling sense of *fort-da(sein)*—of being here and there at the same time… *which is tantamount to being nowhere in particular*" (69, emphasis added).
[161] See Kirschenbaum's *Track Changes: A Literary History of Word Processing.*

4.5 The Procedural Rhetorical Decrease of Consequentiality

This section examines the arguments constructed by the procedures surrounding the smartphone—and how these arguments inform several broader logics that undermine or overwrite the consequence of various processes, systems, and structures of use and engagement. By entrenching specific procedures for dealing with other people, individual emotions, and the smartphone itself, this device has a strong impact on how users experience the world around them and their relationship to it. The three logics I will discuss are very much interrelated and refer to different levels of reduced consequence that users experience. First, I will address how the smartphone creates and serves as **a buffer** that prevents users from having to (or being able to) experience the world in a first-hand manner. Second, I will discuss how the modulated manner of content delivery plays out on a broader scale with the **logic of infinite distraction**. Lastly, I'll offer a sustained consideration of the reduced consequentiality associated with the smartphone's production and disposal with the **logic of "out of sight, out of mind."** I'll here argue that the extraction of resources, manufacturing of parts, and human labour involved in smartphone production are all obscured or downplayed, as much by the companies' PR teams as by the smooth surfaces of the devices themselves.

4.5.1 Logic of the Buffer

At many junctures in daily life, the smartphone has come to serve as a buffer—as "a thing or person that reduces a shock or protects someone or something against difficulties" (Oxford Learner's Dictionary). For many individuals, keeping a smartphone safely between themselves and the world around them can mitigate the perceived stress and negativity of many situations, interactions, feelings, or experiences. (As I will later show, the logic of infinite distraction and "out of sight, out of mind" serve these same ends, albeit in slightly different ways.) I have already discussed many instances of the smartphone as buffer throughout this project in earlier sections and chapters. However, I want to provide a few more examples in order to demonstrate how the *logic* of the buffer comes to reinforce the argument that smartphones are necessary components and companions in everyday life.

Let's look at some of the ways that the smartphone acts as a buffer for users, from physical to social to psychological and emotional.

Despite its small size and weight, the physical presence of the smartphone is itself effective as a buffer. For example, the connected presence of a smartphone can decrease the stress of being in an unfamiliar or even threatening environment by serving, as previously discussed, as a lifeline connecting the individual to safety in the form of emergency calling, GPS locational technology, or saved addresses. The feeling of a smartphone in hand can thus provide users with physical reassurance, knowing that help is only a speed dial away if needed. Taking a different angle, Ruth Ayaß describes how smartphones serve as "involvement shields," or "objects used by actors to display their status of business and involvement in some sort of activity" (9). They can be used as a means of disassociating from a present context by "allowing users to accountably avert their gaze and orient their body to the phone, [making] the latter able to display their unavailability" (Licoppe, "Ring" 101). In other words, the smartphone's physical presence can deflect others' attention by making it clear that the user's attention is absorbed by the device, rendering them unavailable to outside interlocutors. In both cases, the user is "saved" by their smartphone's close physical presence.

Beyond this physical shielding, the smartphone also reduces the social consequentiality of interacting with other people by offering the possibility of engaging with them only partially, in a mediated rather than direct manner. Because the smartphone offers many alternative modalities for communication across media (written text, emojis, voice notes, etc.) that are more diffused and distant,[162] the real-time exchange of ideas and emotions, and all the potential stress that goes with that exchange, can be offloaded into "safer" and lower stakes options. These other options may promote a greater sense of user agency and situational control by reducing the level of engagement expected from both (or

[162] As Kjetil Sandvik et al. note, "[c]ommunicating across media in everyday life is not just a question of choosing and combining different content and media-platforms, it is also a question of choosing and combining different modes of engagement" (10).

all) parties. For this reason, smartphones are now frequently positioned as the "middle man" between people, whether in friendship, fights, or love. In *Reclaiming Conversation*, Turkle describes how study participants would wait until they had parted and could get on their phones to begin a fight, rather than actually hashing things out face-to-face. Consider a romantic context: for a socially anxious teenager in their first relationship, in-person conversations and even phone calls might be an intimidating prospect because they require an immediate (and less mediated) conversation with the other person. Saying "I love you" or "We're done!" is much easier when it can be typed or even converted into emojis that test out the sentiment without saying it directly (i.e., including hearts at the end of text messages to test the waters before deigning to actually write "*l-o-v-e*," as demonstrated in Figure 17).

Figure 17: An assortment of ways to ease into an "I love you" over text message

Beyond romantic relationships, the smartphone affords many means for reducing personal investment by placing more emphasis on symbolic interaction rather than genuine, in-person connection. For example, replacing a hug at a visitation for a deceased loved one with Facebook's "Care" button totally reconfigures the relationship between bereaved and friend, shifting things towards signifiers and symbols rather than concrete experience and engagement. As more and more forms of interaction are put into symbolic form, the complexity of the emotions that can be quickly and easily conveyed online are reduced. A "Like," for example, is the simplification and reduction of positive emotion to the bare minimum—perhaps the reason why Facebook expanded their reactions to a range of seven different "emotional responses" in 2016. And yet, in many cases, these reactions are an impoverished representation of the range of human reactions to a given situation. To return to the example

of the bereaved friend, if I click the "Care" reaction, does that indicate that I'm sending care and hugs? Or that I "care" about the post? In either case, these interpretations fall far short of a message of condolences, which itself is far less consequential than an in-person visit. To use the language of Section 4.4.4, the smartphone serves as a window into many different spaces and situations, but it does not quite allow the user to pass through; the irreplaceability of physical contact or closeness is undeniable. However, the more users resort to smartphone-facilitated (and buffered) interactions, the less common this in-person closeness will be.[163]

The reduction of consequence due to an increasing emphasis on symbolic rather than genuine interaction also applies to users' treatment of other users. Because it is so easy to view someone as just a username, profile icon, or image-based construct, the nuances and complexities of that person's life tend to get flattened or abstracted. Indeed, when everyone is hidden behind a screen, many interactions become simple exchanges between objectified, abstract entities rather than between real individuals. Of course, as more users employ LLMs and AI programs, it will become even more difficult to view everyday online exchanges with consequence; even if users outsource most of the mental and emotional labour associated with communication to machines, they can still get generally favourable outcomes.[164] This is, of course, a large part of the appeal of generative AIs, which offload most or all of the actual "work" of writing, thinking, or organizing ideas. When a user knows or suspects that others are employing these tools, they begin to feel that they too can get away with putting in less.[165]

---

[163] Hubert Dreyfus and Hans Gumbrecht see this loss of direct contact with others as a deep loss of *stimmung*, or mood, which comes about only through in-person engagement with other people.
[164] This outsourcing represents Step Three, abdication, in Gerd Leonhard's predicted progression of automation: automation, assentation, abdication, aggravation, and abomination.
[165] As William Uricchio writes, "unlike earlier technologies, developments in machine learning have enabled algorithms to self-optimize and generate their own improvements. They can now self-author and self-create. This greatly complicates notions of authorship, agency and even algorithms' status as tools, which imply an end user" (127).

In these ways, the smartphone can serve as either a physical buffer ("involvement shield") or as a means of maintaining emotional, social, or psychological distance from other people. While it could be argued that desktop computers offer many of the functionalities discussed above, the smartphone is ready-to-hand and always *on* hand, which makes it a much more convenient (and portable) buffer for users to employ in a variety of settings. With each interaction that is avoided, offloaded, or de-escalated, the argument in the favour of the smartphone's role as buffer is reinforced.

4.5.2 The Logic of Infinite Distraction

> *"What if the raison d'être of so-called social media is to calibrate the interactive spectacle so that we never feel the same way as other potential allies and affinities at the same moment?*
>
> – Dominic Pettman, *Infinite Distraction,* 29.

Through the constant, customized delivery of content for users to engage with, the smartphone also encourages and enables the logic of infinite distraction. Vorderer and Klimmt explain that there is a belief with smartphone users that "aversive states can virtually always be avoided… being permanently online comes with the availability of unlimited entertainment content that allows one to always manage one's mood with precisely such messages and hedonic qualities that meet individual and situation-specific needs" (58). This quote exemplifies the argument of the logic of infinite distraction, which posits that users need not, and indeed *cannot*, dwell on any one thing for a long period of time—whether that is something in the real world or on screen.

Real-world distraction is produced by the smartphone's multitude of different media and platforms that make it easy to purchase, stream,[166] read, play, or interact whenever users are bored, lonely, sad, waiting, or otherwise in search of engagement. In other words,

[166] "Streaming is instant access over networks to video that does not require downloads or storage space, and it accounts for well over 50 percent—sometimes as much as 80 percent—of all web traffic at any given time" (Kornbluh 124).

processes that involve waiting or unpleasantness no longer have to be long, drawn-out affairs, but can rather be "hacked" by picking up one's smartphone. It is important to note here, however, that these so-called "aversive states" do not exist independently, but are instead constructed in hindsight through the perspective of modern day smartphone users. As the ultimate form of "hot media" that captures and holds users' attention, the smartphone retrospectively refigures previous experiences of waiting as empty or unfulfilled time.[167] That is, it was not until the option to fill waiting times with smartphones became available that these times began to be perceived as annoying or avoidable states.

The question of time and use of time is important in a society in which infinite distraction is the default, despite (or perhaps because of) the association that distraction has with losing *track* of time. Sarah Sharma argues that "the contradictions of our digital age centre on the moral imperatives of 'using our time wisely'," which in turn are "founded on the ways we value individual time. I must use my time wisely, and if you delay me or make me wait, you are impeding my ability to meet that social expectation of productivity" (qtd. in Farman 192).[168] Farman describes the tensions around the notion of "productive time" as such:

> Productive time is efficient, while waiting is inefficient; productive time seamlessly weaves into our lives, while waiting is full of seams and puts our lives on pause. Productive time is invisible and waiting is conspicuous. Time's movement between invisibility/visibility, efficiency/inefficiency, and seamless/stitched mirrors the ways that designers have described our encounters with emerging technologies. (187)

Farman prompts readers, when stuck in the in-between moments, to consider the question: "Who benefits from my waiting?" (189). In this context, I would change the formulation slightly to: "Who benefits from my *attention*? From my *distraction*?" We already know that corporations of all kinds—the ones people work for, the ones who provide the services

[167] See Farman, Han, and Sarah Sharma for more on the topic of waiting.
[168] For a deeper look at the benefits and radical potential of keeping time for oneself, see also Jenny Odell, *How to Do Nothing.*

people use, the ones who get paid by clicks or time onscreen—benefit greatly from the attention economy that funnels user's attentions this way and that. However, many corporations also benefit *through* distraction—in other words, through time thrown away between other tasks, spent scrolling through timelines, playing a casual game of Candy Crush, or handing out mediocre reviews. So, I will leave a further question hanging: "*Who benefits from, and thus is more liable to shape or impact, the way that I pay attention to my smartphone?*"

Pettman examines this question in *Infinite Distraction*, looking at how social media's ability for "hyper modulation"[169] of users' moods and mental states relies on "staggered distraction" of content and information. For Pettman, the biggest issue of attention and distraction is "not simply the dominant mode of distraction, but the dialectical way in which such distraction is composed of millions of tiny moments of engineered attention (or vice versa)" (27). This is exemplified by social media platforms on two levels. First is the fact that social media applications and interfaces work by constantly offering little tidbits of distraction, pushing and pulling users in different directions through a variety of tactics: notifications, interspersed Reels or "Shorts" in the main newsfeed or timeline, multiple clickable features that move to different parts of the app, and links that open in a browser (to name just a few). Furthermore, it is so easy to swipe away or switch apps that users can easily distract themselves from negativity in one sphere with novelty in another.

On the other hand, the *selection* of social media posts is engineered to keep users on a rollercoaster, from vacation spam to terrorist attacks to puppies and back again; whichever comes first, the others are (almost inevitably) sure to follow. Users become numb to the vast amounts of information crossing their screens when it is shown so interchangeably, resulting in a state where "[t]hat nebulous indignation which constitutes the very fuel of true social change can then be redirected safely around the network, in a manner akin to the energy companies with electricity around the country, avoiding any dangerous surges" (29). Putting

[169] Which he also calls "deliberate dissonance" or "productive delay."

Pettman's discussion into the language of this project, we can say that social media platforms and the algorithms that control the delivery of their content can dictate the sense of consequence associated with the images and words people encounter online through this process of "modulated distraction." In this way, too, the argument that users no longer have to endure sustained "aversive states" (Vorderer and Klimmt 58) is reinforced.

A prime example of the logic of infinite distraction that has become particularly evident in recent months is the way in which the Israel-Palestine conflict has been portrayed on my social media feeds, particularly Instagram. Vehement supporters will post stories about death tolls, tragedies, and crimes one hour, and then silly photos of their cat the next, and then moments from their evening out with friends the next. This flitting from horrific and serious images to lighthearted photos of pets or dinner creates a strange cognitive dissonance. How is it that "matters of potentially historic import, like a civil rights issue, for instance, are now flattened into the same homogeneous, empty digital space as a cute critter or an obnoxious celebrity" (Pettman 35)? Certainly, it is mentally and emotionally taxing, and may even be harmful, to dwell exclusively on tragedies that one cannot intervene in or ameliorate (a privilege, certainly, for people who encounter these tragedies only second-hand through their screens).[170] But at the same time, juxtaposing content from tragedies with flippant or mundane posts also seems somehow *wrong*, as if the seriousness of the former is detracted by its proximity to the latter.[171]

It is worthy of note that this tactic of buffering and modulated distraction is also employed on a broader level by media corporations. As Pettman explains:

> Distraction is no longer a gesturing away from that which disturbs, or that which others do not want noticed… Rather, the decoy itself—the thing designed to distract—has merged with the

[170] And, beyond this, overexposure to graphic or tragic images has been shown to *decrease* people's emotional response to that content, thus reducing the empathetic impact of the plight depicted.
[171] Pettman also says that, although "[t]elevision was the pioneer in creating this absolute exchangeability of 'events'… in the new click-based configuration which makes up the interface between ourselves and *what's going on*, every story is equivalent, and those none more meaningful than any other. We need only glance at our ever-refreshing newsfeed to see how seemingly 'raw' information is in fact preprocessed at the same plant" (35).

> distraction imperative, so that, for instance, news coverage of race riots now distracts from the potential reality and repercussions of race riots. (11)

This new form of distraction works by "acknowledg[ing] as much as it disavows," thus making it much more difficult to resist "for the simple reason that no one can accuse 'the media' of trying to cover up 'the truth.' Rather, incessant and deliberately framed representations of events are themselves used to obscure and muffle those very same events" (11). In other words, the sheer volume of content available for consumption online, not to mention specifically being generated by news sources, prevents people from actually understanding the lived impact and importance of what is being shown. Glenn Anderau's concept of "epistemic flooding" is pertinent here. Epistemic flooding happens when "epistemic agents find themselves in epistemic environments in which they are routinely confronted with more information and evidence than they can diligently process" (1)—most often, social media environments which are "flooded by design" (9).[172] When people are overwhelmed by information, they are not able to process it rationally. If we consider the fact that smartphones constantly overwhelm users with information of all different types (in keeping with the logic of infinite distraction), then it is quite plausible that a smartphone user actually *cannot* entirely comprehend or absorb the full gravity of the information they are ingesting, simply because of the means by which it is delivered to them.

4.5.3 The Logic of "Out of Sight, Out of Mind"

I would like to close by considering a slightly different aspect of consequentiality that draws on both of the logics discussed here so far: the logic of "out of sight, out of mind." It is perhaps already evident how this logic is produced as a result of the buffered, distracted existence of smartphone users: a buffer allows negative or harmful things to remain "out of sight, out of mind," as does the process of infinite distraction that shifts rapidly in order to prevent the mind from settling on any given topic for too long (thus keeping most topics

[172] As Anderau points out, "[s]ocial media feeds thrive off of engagement and the prolific sharing of content. If you find yourself scrolling through an empty social media feed, you would assume it is faulty" (9).

"out of sight, out of mind"). In this section, I will explore how the smartphone itself seems to simply appear and disappear from users' lives in a way that reduces the sense of consequence associated with its manufacture and disposal. That is to say, because the smartphone appears to users fully formed and ready-to-hand (and ready to get *into* hands and working as quickly as possible), users are less likely to consider where the device came from or where it might end up.

Because of this redirection of initial attention, many users aren't aware that the cost of smartphone manufacturing is colossal, in both human and environmental terms. For instance, consider the scandals with Apple and Foxconn over the past decade, which have revealed that Apple products are manufactured in unethical and inhumane conditions (Chamberlain, Dong, Albergotti), or Siddarth Kara's 2018 field study finding that "children as young as six are among those risking their lives amid toxic dust to mine cobalt for the world's big electronics firms" (n.p.).[173] Environmentally speaking, over eighty percent of the smartphone's carbon footprint comes from the manufacturing process—something that is especially concerning when considering that there were 6.97 billion smartphones in the world as of 2023, a number that grew by 350 million since 2022 (Turner n.p.). Nonetheless, as Adam Greenfield says, "we suppress whatever qualms we may have about the conditions in the mines and factories, the environmental footprint, the energetic cost of the extended supply chain, or the authoritarian governments we ultimately support through our act of purchase" (27). How is this possible, especially in an era of constant surveillance and frequent exposés by the media and individuals alike?

There are several reasons for this. First is the way in which the smartphone is designed, which persuades users *not* to consider the fact that it was designed at all—thus allowing users to more easily "leave this deniable prehistory behind the moment we plunk down our cash and take home our new phone" (Greene 27). The smartphone's smooth, sleek

[173] The mining of rare earth metals and elements is linked to numerous health issues, results in unsafe and unethical living conditions, and has devastating ecological consequences.

surface is futuristic and forward-facing, conspicuously devoid of human touch; there is no sign of fingerprints, much less the blood and sweat of those whose labours made the device possible. Emerson asserts that the smartphone's "closed architecture is being marketed as a feature via attractive packaging that touts the marvelousness of natural, intuitive, invisible, and even 'magical' interfaces" (4). Users might be aware on an abstract level of the complex nature of the circuitry and electronics involved in their device's proper functioning, especially if something goes wrong. However, the "closed architecture" and mystique surrounding the inner workings of smartphones means that users rarely see or contemplate the materials and processes that go into producing their phones. Smartphones are a "black box," a term Latour says is "used by cyberneticians whenever a piece of machinery or set of commands is too complex. In its place they draw a little box about which they need to know nothing but its input and output" (2-3).[174] Drawing on Latour, Shannon Walters writes that "[t]echnologies or codes, then, are understood as ready-made, rather than in the making" (176)—regardless of "how controversial their history, how complex their inner workings, how large their commercial or academic networks that hold them in place" (Latour 3). In other words, users care more about what they can *do* with their devices than how the devices actually function or how they came to be in the user's possession.

The smartphone's black box design also obscures how difficult it is to dispose of, especially compared to past communications media. Many early forms of communication were ephemeral to a fault: smoke or drum signals disappeared nearly instantaneously; parchment, paper, and papyrus could be destroyed (either on purpose or by accident) by fire, water, mold, vermin, and even manual manipulation. Because these materials are organic, they do not linger, at least not in an environmentally detrimental manner. Televisions, computers, and smartphones, however, cannot be so easily eliminated, as we are now discovering. As Jennifer Gabrys puts it: "When electronic devices shrink to the scale of

[174] Blackboxing is 'the way scientific and technical work is made invisible by its own success. When a machine runs efficiently, when a matter of fact is settled, one needs to focus only on its inputs and outputs and not on its internal complexity. Thus, paradoxically, the more science and technology succeed, the more opaque and obscure they become' (Latour 304).

paper-thin and handheld devices, they appear to be lightweight and free of material resources. But this sense of immateriality also enables the proliferation of waste, from the processes of manufacture to the development of disposable and transient devices in excess" (5). This has certainly proven to be the case. The UN's 2020 Global E-waste Monitor report showed that "the world dumped a record 53.6 million tonnes of e-waste last year, of which the US is the world's second-largest contributor to e-waste, dumping 6.9 million tonnes" (Dayaram n.p.). A 2018 study found that the information and technology industry's greenhouse gas emissions, which was around three percent in 2020, could account for more than fourteen percent of worldwide greenhouse gas emissions by 2040 (Belkhir 448).[175] However, despite widespread acknowledgement of climate change and the importance of reducing emissions, the production of smartphones and other digital devices is only increasing—which means there will inevitably be more devices in need of disposal, too. Even "recycling" e-waste so that some of the precious minerals and metals can be extracted and repurposed isn't the solid solution it appears to be. Transporting e-waste to the Global South where the recycling takes place is itself costly in terms of energy and emissions, and the physical labour involved is literally toxic.[176]

Further concerning is the reduction in time span between manufacture and disposal; due to planned obsolescence and the inevitable rollout of updates, most smartphones rarely outlive more than two or three years of service (Laricchia). In fact, Tim Cooper et al. state that "[c]hanges in functionality may lead users to regard phones as obsolete barely 1 year after purchase, particularly when technology cycles may last a mere 6 months" (610). This structure of use is a prime example of procedural rhetoric in effect: the many processes that are encouraged with the smartphone (particularly the drive for constant upgrades) and the "rules" that structure the way it circulates in society construe it as inconsequential, exchangeable, and interchangeable—despite its obvious financial cost and importance in

[175] To put it in perspective, this sector accounted for just one to two percent a decade ago (Belkir).
[176] As Violet Pinto explains, recycling "grey goods" like computers and smartphones is "comparatively more complex" due to "their toxic composition," including "toxic chemicals like lead, cadmium, beryllium, BFR, polyvinyl chloride and phosphor compounds" (66-67).

users' lives. Drawing from Wilhelm et al., Cooper et al. note that "a lack of emotional attachment has also been attributed to the extensive publicity given to new models in the mass media, which leads owners to view them as transient items; in addition, owners' inability to mend faulty phones lessens their sense of engagement" (610). They furthermore explain that social factors such as specific lifestyles or values affect perceptions of "reasonable" product lifespans, and may result in smartphones being turned in well before actual technological issues would make such an exchange necessary (611). While options for repair and refurbishing do exist, the existing procedures around acquiring and disposing of smartphones at a relatively rapid pace ultimately serve to persuade users that technological progress and rapid advancement are the norm rather than the exception. People purchase their smartphones knowing that a better model will likely emerge within a few years or even months, especially if they are open to "jumping ship" to a new brand. Until manufacturing or updating cycles slow or somehow begin to attach a greater sense of consequence to these devices, it is unlikely that people's attitudes towards their smartphones will change—especially when so much of the environmental impact smartphones have is "out of sight, out of mind" for the average user.

One last important fact to consider here is that even people who count themselves as environmentalists, who are vegans, or who are otherwise devoted to equality and justice for the earth and its inhabitants, own a smartphone. This is because the smartphone, in this era of the digital default, is positioned as a "necessary trade-off" for making a difference, and thus the negative aspects of its manufacture, use, and disposal take a back seat.[177] This willful ignorance is an issue not only for folks driven by specific causes, but for all users;

[177] A notable example from Ian Hodder: "An average iPhone uses 361 kilowatt-hours each year after factoring wireless connections, data usage, and battery charging. A medium-sized refrigerator with an Energy Star rating only uses about 322 kilowatt-hours a year. The main problem is not the phone itself, but all the systems that run continuously to support it. There are computers and servers that run twenty-four hours a day, seven days a week. There are air-conditioning systems need to keep the servers cool. There are manufacturing centers to build the devices, and nonstop electricity to power the broadband networks. Mark Mills estimates that the global Information-Communications-Technologies (ICT) ecosystem uses a total of 1,500 terawatt-hours of power every year, equal to the total electricity generated by Japan and Germany combined" (27).

the information surrounding the smartphone's carbon footprint, ties to unethical corporations and practices, and contributions to e-waste issues are not difficult to find online. But despite the easy access to numbers and statistics, users do not focus on this aspect of their smartphones, because people tend to hear and remember only what fits with their pre-existing frame of reference.

This fact is indicative of the deeper logic of positivity that pervades modern society, in which expressions of negativity and pessimism simply aren't as "sticky" (Packer and Stoneman; Heath and Heath). When people are motivated to generate change on major global issues (such as climate change, racial inequality, sustainability, or poverty), they are motivated because they hold the belief that their actions *can* and *do* make a difference. The thought that the smartphone they use to promote well-intentioned causes could actually be deeply implicated in the harms they seek to address may create too much cognitive dissonance to fully acknowledge. In fact, this is a classic catch-22, in which the device that offers a means to spotlight and speak to important issues—and to reach a global audience—is itself a contributor to some of the worst conditions of all. The "need" for smartphones, which results from them being so firmly entrenched within so many aspects of contemporary life, thus obscures the full consequentiality and negative impact that they have on the environment and many people around the globe (who remain "out of sight, out of mind" for many smartphone users in North America).

4.5.4 Conclusion

In this section, I have pointed out three logics that perpetuate the reduction of consequence associated with the procedures that smartphones are involved in or enable. I began with the logic of the buffer, through which individuals are protected from the world around them by virtue of their smartphones' presence. The smartphone also endows users with the power to moderate how much direct interaction they will have with others, as well as what form that interaction will take. I then described the logic of infinite distraction, which encapsulates the many ways that the smartphone can send users careening towards opposite ends of the emotional spectrum, pushing and pulling with humour, tragedy, curiosity, excitement, and

everything in between. Lastly, I discussed the ways in which the sense of consequence associated with the smartphone as a manufactured object is reduced through the nature of the processes surrounding its production and disposal. These processes are not secret, but they are largely ignored by users who prefer to focus on their smartphones' functions and possibilities rather than the pitfalls of these hard-to-manufacture, hard-to-discard technologies.

4.6 Conclusion: The Unmoored Subject

At the end of all of this, what sort of subject is created by the altered sense of consequence facilitated and perpetuated by the smartphone? It is the **unmoored subject**, who drifts endlessly in the currents and flows of data and information with no anchor to hold them in place. Many thinkers have used a similarly watery metaphor in their descriptions of modern society. Zygmunt Bauman has written on the concept of "liquid modernity," which refers to the way in which both time and space have been liquified and thus can no longer be stably contained or defined (*Modernity*). The form of life that liquid modernity gives rise to, "liquid life," is "a precarious life, lived under conditions of constant uncertainty… it cannot stand still" (*Life* 2, 3). As Papacharissi argues, even the self has become liquid, such that the fluidity of identities mirrors the modern experience of life itself. She writes that "[t]he self, in late modern societies, is expressed as fluid abstraction, reified through the individual's association with a reality that may be equally flexible" (304). Anna Kornbluh identifies the "subjective experience in an economy of immediacy" as one of "[d]rowning in a deluge of images without context, words without meaning, information without distinction" (45).

Smartphones contribute to this "liquid modernity" and "flexible reality" by altering the perceptions of consequence associated with many aspects of life, eliminating the possibility of remaining firmly moored or anchored. Some aspects of life take on greater importance as they are magnified or amplified by smartphones: keeping up with others, visibilizing oneself, capturing and storing every moment. Other procedures can be made to seem less important or consequential because of how the smartphone privileges buffering,

distraction, and obfuscation of broader impacts and effects. Therefore, as long as a user has their smartphone in hand, they will stay afloat, but they will not be able to aim their attention, efforts, or energies in any particular direction for long. The digital tides and currents will continue to carry them this way and that, pulling them farther out to sea.

With the smartphone's many pushes and pulls, is no wonder that users might struggle to orient themselves. When the sense of consequence associated with almost everything someone does is influenced by a technological device designed to be psychologically stimulating and engaging, it can be difficult to grasp what true consequences are and would be like to experience. When children throw tantrums about their phone being taken away, writhing as if in agony, how can they be expected to assimilate the idea of other children being bombed halfway around the world? When getting a new phone is as easy as the click of an onscreen button, who would dwell on the tonnes of greenhouse gas emissions issuing out into the atmosphere? I am not trying to place blame on users for such patterns of use or thought—which, as we know, draw on humans' psychological and social vulnerabilities—but rather to point to some of the ways in which the logics that drive the smartphone society manifest in particular behaviours or beliefs.

I want to briefly examine the unmoored subject in contrast to some other schools of thought that, drawing from Michel Foucault, argue that today's neoliberal society positions subjects as "enterprises" or "projects." According to J.M. Bernstein, who blends a Foucauldian approach with that of the Frankfurt School, "neoliberalism is not exhaustively a set of economic policies, a phase of capitalist development, or an ideology; it is a form of reason that turns citizen-subjects into human capital, into enterprises and entrepreneurs of their own lives" (16). Under this form of reason, individuals are "forced to conceive of themselves in entrepreneurial and enterprise terms" because of how neoliberalism has "universalize[d] market instrumental rationality by turning citizen-subjects into uniformly atomistic economic units" (16). Similarly, in *The Burnout Society*, Han explains that "achievement subjects" (his term for Foucauldian enterprises) are, in the neoliberal imagining, no longer subject to others who impose limits on their freedom. Instead, they are

endowed with boundless potential: “The late-modern achievement-subject is subject to no one. In fact, it is no longer a subject in the etymological sense (subject to, *sujet à*). It positivizes itself; indeed, it liberates itself into a project” (46). However, Han warns that “the change from subject to project does not make power or violence disappear. Auto-compulsion, which presents itself as freedom, takes the place of allo-compulsion” (46). That is, because individuals are entirely responsible for their own success, they begin to commit the same sort of violence against themselves that was formerly inflicted by society; in this way, “the achievement-subject exploits itself until it burns out. In the process, it develops auto-aggression that often enough escalates into the violence of self-destruction” (47). While neither Bernstein nor Han link this notion of projecthood to the smartphone, my discussion above (particularly in 4.2 and 4.3) indicates how the smartphone can serve to amplify the efforts of “achievement subjects” as they visibilize and archive the trajectory of their lives.

How might we square the conception of the subject as project with the one presented in this conclusion, in which the subject is unmoored and drifting? I believe that such a resolution can be found by reading between the lines about what sort of enterprise or project an individual is encouraged to become: one that accords with the aims of capitalism and “market interactions,” which is to make profits. Becoming a project means deciding what will be of importance and consequence and holding that as the ultimate goal, while everything else falls by the wayside. Today’s capitalist society has determined that financial gain is the ultimate aim to project oneself towards. When succeeding as an enterprise is figured in terms of economic or social gain, these aspects become paramount. In this sense, the influencers discussed in 4.3 are perfect examples of subjects as projects. And yet, even with all this supposed potential and freedom, such subjects cannot truly dictate where they will end up, because they are at the mercy of the very algorithms, platforms, technologies, and markets that enable their semblance of success. Thus, to return to the nautical metaphor: although the moorings that formerly anchored subjects have been removed, the movements of these unmoored subjects will always be dictated by the currents of capitalism and

technological change. As long as users continue to cling to their smartphones, they will be at the mercy of these currents.

Coda
What Now?

> *For how we spend the brutally limited resource of our attention will determine those lives to a degree most of us may prefer not to think about… when we reach the end of our days, our life experience will equal what we have paid attention to, whether by choice or default. We are at risk, without quite fully realizing it, of living lives that are less our own than we imagine.*
>
> – Tim Wu, *The Attention Merchants*, 5.

As Muckelbauer emphasizes, even though we may "never be fully aware of all the multiple forces that constitute the rhetorical dimensions of a situation, this does not mean they are irrelevant or that rhetoricians can simply continue to ignore them in favor of focusing on the recognizable argument" (37). My goal in this dissertation has been to begin identifying the rhetorical dimensions of the smartphone and its role in users' everyday relationships, as well as the types of subjectivity it encourages and enables. Considering the smartphone itself as acting rhetorically, rather than just analyzing the messages it conveys, allows us to uncover a deeper level of persuasiveness at play in everyday life, one that often falls beneath users' notice and thus is that much more effective.

As I have demonstrated, the ways in which people are encouraged and enabled to interact with their smartphones *are* rhetorical, because the pathways that are open to users are steering (or "turning," to use Muckelbauer's phrasing [40]) them towards certain behaviours, habits, and patterns over others. Moving the audience to action has always been the primary goal of rhetoric. With the smartphone, however, the types of actions that people are moved to commit are not always ones based on rational responses or recognized appeals, but often ones that take place on a semi- or subconscious level (as Fogg's captological approach demonstrates). And, despite Bogost's assertion that procedures invite user engagement, people do not often think to question the procedures that structure their everyday lives—especially when these procedures have become habitual (Chun), routinized (Helles "Theorizing," Bakardjieva, Thorhauge), or simply taken for granted (Ling). It is for

these important reasons that we study the smartphone not just as a tool in the hands of human agents but also as a rhetorical agent in and of itself. In doing so, we can shed more light on a whole network of persuasion at play in everyday life, a network that will only grow more important in the coming years. Even if smartphones soon become yet another blip on the timeline of technological development, their impact on the way human beings think, act, feel, and live is irrevocable—and will undoubtedly inform the subsequent technologies we go on to develop.

Throughout this dissertation, I have used a captocedural rhetorical approach to identify three types of subjects created by the smartphone and its address: the split subject, the integrated subject, and the unmoored subject. At first, they may seem contradictory; how can a subject be both integrated and unmoored, fixed and unfixed simultaneously? The metaphor of currents in Chapter 4's conclusion provides an answer. Users are integrated into the capitalist system, carried along by the sweeping currents that dictate the flow and circulation of data, ideas, products, and people. This is made possible *because* the users are unmoored, unable to drop anchor or make it to shore—they are simply drifting, along for the ride. Furthermore, the notion of the split subject highlights how users are being stripped of the ability to maintain the focus, the *presence*, that is needed to fully assess and address their situation. The point of this game of infinite distraction is to ensure that users are always in the in-between, never fully here nor there (or rather, always in both places at once, which amounts to the same thing). As a result of all of this, many people today are living lives not of their own choosing, instead becoming complacent and one-dimensional in a society that seems to value the flow of capital and data over the genuine freedom and wellbeing of its citizens. The smartphone is facilitating and accelerating the construction of this society through its ever more captivating (and totalizing) means of addressing subjects as users.

I began by saying that I do not wish to posit solutions to the issues I've identified in this project, and that remains true; it is hard to give suggestions for modes of resistance and resilience in this increasingly technologized society without coming across as naïve or utopian. For better or worse (and I believe it is the latter), smartphones are now integral to

the everyday workings of society. And, as Winner and McLuhan have argued, the more something features in everyday life, the more it becomes unmarked and unremarked upon. Technologies that were once new eventually begin to blend into the background, and users eventually forget how much of an effect these technologies actually have. However, one thing is certain: in order to understand the effects that the smartphone has on our time, privacy, and thoughts, we need to be aware of *how* it impacts us. It would not do well, in this crucial time, to become like Winner's "technological somnambulists," who pay so little attention to the larger forces behind technological innovation that they "sleepwalk through the process of reconstituting the conditions of human existence" (53).

Examining how the smartphone is reshaping and reorienting subjectivity is crucial for understanding and anticipating both the present and future of psychological and social life in North American society, not only for Millennials and Zoomers but for all people of all ages. If my diagnoses provide nothing else, let them be a call to begin finding ways to reject the splitting, the integration, the drifting—in ways that will not and cannot be prescribed here. We are in uncharted waters, and at this rate of global change we will never have the comfort of a familiar port again. That is to say, we can look back, but we can never go back. All we can do is decide what we will carry with us as we sail on.

References

Adams, Jonathan. "A Theory of Infrastructural Rhetoric." *Communication Design Quarterly*, vol. 10, no. 3, 2022, pp. 46-55. *DOI.org (Crossref)*, https://doi.org/10.1145/3507870.3507876.

Adorno, Theodor. "Resignation." *Critical Models: Interventions and Catchwords*, translated by Henry W. Pickford, Columbia University Press, 1988 [1969].

Adorno, Theodor, and Max Horkheimer. *The Dialectic of Enlightenment.* Continuum, 1969.

Ahmed, Sarah. "Happy Objects." *The Affect Theory Reader*, edited by Melissa Gregg and Gregory Seigworth, Duke University Press, 2010.

Albergotti, Reed. "Apple Accused of Worker Violations in Chinese Factories." *The Washington Post*, 9 Sept. 2019, www.washingtonpost.com/technology/2019/09/09/apple-accused-worker-violations-chinese-factories-by-labor-rights-group/. Accessed 3 Apr. 2024.

Althusser, Louis. "Ideology and Ideological State Apparatuses (Notes Towards an Investigation)." *Lenin and Philosophy and Other Essays*, translated by Ben Brewster, Monthly Review Press, 1971.

Amorim, Francisca Gonçalves. "Brevity, Emotion and Frugality in Political Media Rhetoric." *Media Rhetoric: How Advertising and Digital Media Influence Us*, edited by Samuel Mateus, Cambridge Scholars Publishing, 2021.

Anderau, Glenn. "Fake News and Epistemic Flooding." *Synthese*, vol. 202, no. 4, 2023, pp. 1-19. *DOI.org (Crossref)*, https://doi.org/10.1007/s11229-023-04336-7.

Anderson, Benedict. *Imagined Communities.* Verso, 1998.

Aristotle. *On Rhetoric: A Theory of Civic Discourse*, edited by George A. Kennedy. Oxford University Press, 1992.

Aschoff, Nicole. *The Smartphone Society: Technology, Power, and Resistance in the New Gilded Age.* Beacon Press, 2020.

Ayaß, Ruth. "Using Media as Involvement Shields." *Journal of Pragmatics*, vol. 72, 2014, pp. 5-17.

Bajaj, Simar. "Everyone is On Their Phones – But Are We Actually Addicted?" *The Guardian*, 3 Jan. 2024, www.theguardian.com/lifeandstyle/ng-interactive/2024/jan/03/what-is-phone-addiction-definition-science-debate. Accessed 10 Mar. 2024.

Bakardjieva, Maria. "Intersubjectivity across Media. The Structures of the Lifeworld Revisited." *The Media and the Mundane: Communication Across Media in Everyday Life*, edited by Kjetil Sandvik et al., Nordicom, 2016, pp. 75-90.

Banet-Weiser, Sarah. *Authentic TM: Politics and Ambivalence in a Brand Culture*. NYU Press, 2012.

Barnett, Scot, and Casey Boyle. "Introduction." *Rhetoric, Through Everyday Things,* edited by Scot Barnett and Casey Boyle, University of Alabama Press, 2016, pp. 1-14.

Bauman, Zygmunt. *Liquid Modernity.* Polity Press, 2000.

---. *Liquid Life.* Polity Press, 2005.

Baym, Nancy K. *Personal Connections in the Digital Age*. Polity Press, 2010.

Belk, Russell. "Possessions and the Extended Self." *Journal of Consumer Research,* vol. 15, no. 2, 1988, pp. 139-168, https://doi.org/10.1086/209154.

Belkhir, Lotfi. "How Smartphones Are Heating up the Planet." *The Conversation*, 25 Mar. 2018, www.theconversation.com/how-smartphones-are-heating-up-the-planet-92793. Accessed 2 Jan. 2022.

Benjamin, Walter. "The Work of Art in the Age of Mechanical Reproduction." *Illuminations*, edited by Hannah Arendt, translated by Harry Zohn, Schocken Books, 1969 [1935].

Bennett, Jane. *Vibrant Matter: A Political Ecology of Things*. Duke University Press, 2010.

Berlant, Lauren. *Cruel Optimism*. Duke University Press Books, 2011.

Bernstein, J.M. "The Idea of Instrumental Reason*." The Routledge Companion to the Frankfurt School*, edited by Peter Eli Gordon, Espen Hammer, and Axel Honneth, Routledge, 2018, pp. 3-18.

Bhandari, Aparajita, and Sara Bimo. "Why's Everyone on TikTok Now? The Algorithmized Self and the Future of Self-Making on Social Media." *Social Media + Society*, 2022, pp. 1-11, https://doi.org/10.1177/2056305122108624.

Bishop, Sophie. "Influencer Creep: How Artists Strategically Navigate the Platformisation of Art Worlds." *New Media and Society*, 2023, pp. 1-18, https://doi.org/10.1177/14614448231206090.

Bitzer, Lloyd F. "The Rhetorical Situation." *Philosophy & Rhetoric*, vol. 1, no. 1, 1968, pp. 1-14.

Bogost, Ian. *Persuasive Games: The Expressive Power of Videogames*. MIT Press, 2007.

Bojkov, Nikolai. "New Instagram Updates and Features for Marketers in 2024." *Embed Social,* 22 Mar. 2024, www.embedsocial.com/blog/new-instagram-features/. Accessed 9 Mar. 2024.

Bolter, Jay David, and Richard Grusin. *Remediation: Understanding New Media*. 5. pr, MIT Press, 1999.

Bolter, Jay David. *Turing's Man: Western Culture in the Computer Age*. University of North Carolina Press, 1984.

Boyle, Casey, et al. "The Digital: Rhetoric Behind and Beyond the Screen." *Rhetoric Society Quarterly*, vol. 48, no. 3, May 2018, pp. 251-59. *DOI.org (Crossref)*, https://doi.org/10.1080/02773945.2018.1454187.

Bourdieu, Pierre. "The Forms of Capital*." Handbook of Theory and Research for the Sociology of Education*, edited by J.G. Richardson. Greenwood Press, 1986, pp. 241-58.

boyd, danah. *It's Complicated: The Social Lives of Networked Teens*. Yale University Press, 2014.

Brekke, John S. "A Science of Social Work, and Social Workas an Integrative Scientific Discipline: HaveWe Gone Too Far, or Not Far Enough?" *Research on Social Work Practice*, vol. 24, no. 5, 2014, pp. 517-523, https://doiorg.proxy.lib.uwaterloo.ca/10.1177/1049731513511994.

Brignull, Harry. "Dark Patterns: Deception vs. Honesty in UI Design." *A List Apart,* 1 Nov. 2011, www.alistapart.com/article/dark-patterns-deception-vs.-honesty-in-ui-design/. Accessed 7 Apr. 2024.

Bryan, Chloe. "No One Agrees on What iMessage Tapbacks Actually Mean." *Mashable,* 22 May 2019, www.mashable.com/article/what-do-imessage-reactions-tapbacks-mean. Accessed 17 Dec. 2022.

Bucher, Taina. "The Right-Time Web: Theorizing the Kairologic of Algorithmic Media." *New Media & Society*, vol. 22, no. 9, 2020, pp. 1699-714. *DOI.org (Crossref)*, https://doi.org/10.1177/1461444820913560.

"buffer." *Oxford Learner's Dictionary.* Oxford University Press, 2024, www.oxfordlearnersdictionaries.com/definition/american_english/buffer_1. Accessed 1 Apr. 2024.

Campbell, Scott W., et al. "Mobiles and the Self: A Trajectory of Paradigmatic Change." *The Oxford Handbook of Mobile Communication and Society*, edited by Richard Ling et al. Oxford University Press, 2020, pp. 41-53. DOI.org (Crossref), doi.org/10.1093/oxfordhb/9780190864385.013.3.

Carnegie, Teena A. M. "Interface as Exordium: The Rhetoric of Interactivity." *Computers and Composition*, vol. 26, no. 3, 2009, pp. 164-73. *DOI.org (Crossref)*, https://doi.org/10.1016/j.compcom.2009.05.005.

Carr, Nicholas. *The Shallows: What the Internet is Doing to Our Brains.* W.W. Norton, 2011.

Chamberlain, Gethin. "Apple's Chinese Workers Treated 'Inhumanely, Like Machines.'" *The Guardian*, 30 Apr. 2011, www.theguardian.com/technology/2011/apr/30/apple-

chinese-workers-treated-inhumanely. Accessed 9 Jan. 2022.

Chun, Wendy Hui Kyong. *Discriminating Data: Correlation, Neighborhoods, and the New Politics of Recognition*. MIT Press, 2021.

---. "On Software, or the Persistence of Visual Knowledge." *Grey Room*, vol. 18, 2005, pp. 26-51. *DOI.org (Crossref)*, https://doi.org/10.1162/1526381043320741.

---. *Programmed Visions: Software and Memory*. MIT Press, 2011.

---. *Updating to Remain the Same: Habitual New Media*. MIT Press, 2016.

Citton, Yves. *The Ecology of Attention* [English edition]. Polity Press, 2017.

Coenen, Melina, and Yvonne Görlich. "Exploring Nomophobia with a German Adaption of the Nomophobia Questionnaire (NMP-Q-D)." *PloS one* vol. 17, 2022, https://doi.org/10.1371/journal.pone.0279379.

Coleman, Miles C. "Machinic Rhetorics and the Influential Movements of Robots." *Review of Communication*, vol. 18, no. 4, 2018, pp. 336-51. *DOI.org (Crossref)*, https://doi.org/10.1080/15358593.2018.1517417.

Conner, Cheryl. "Fifty Essential Mobile Marketing Facts." *Forbes*, 12 Nov 2013, www.forbes.com/sites/cherylsnappconner/2013/11/12/fifty-essential-mobile-marketing-facts/?sh=972e78a74756. Accessed 16 Jan. 2022.

Cooley, Heidi. *Finding Augusta: Habits of Mobility and Governance in the Digital Era*. Dartmouth College Press, 2014.

Cooper, Anderson. "What is 'Brain Hacking'? Tech Insiders on Why You Should Care." *CBS News,* 9 Apr. 2017, www.cbsnews.com/news/brain-hacking-tech-insiders-60-minutes/. Accessed 20 Apr. 2024.

Cooper, Marilyn. "Listening to Strange Strangers, Modifying Dreams." *Rhetoric, Through Everyday Things*, edited by Scot Barnett and Casey Boyle, University of Alabama Press, 2016, pp.1-29.

Cooper, Tim, et al. "Mobile Phone Waste and the Circular Economy." *The Oxford Handbook of Mobile Communication and Society,* edited by Richard Ling et al., Oxford University Press, 2020, pp. 601-620.

Copeland, Debra, and Bonnie Lee Harbaugh. "'It's Hard Being a Mama': Validation of the Maternal Distress Concept in Becoming a Mother." *The Journal of Perinatal Medicine*, vol. 28, no. 1, 2019, pp. 28-42, https://doi.org/10.1891/1058-1243.28.1.28.

Coulthard, Glen S. "Subjects of Empire: Indigenous Peoples and the 'Politics of Recognition' in Canada." *Contemporary Political Theory*, vol. 6, no. 4, 2007, pp. 437-60. *DOI.org (Crossref)*, https://doi.org/10.1057/palgrave.cpt.9300307.

Crary, Jonathan. *24/7: Late Capitalism and the Ends of Sleep*. Verso, 2013.

Culp, Samantha. “There’s an Alternative to the Infinite Scroll.” *Wired*, 19 Sept. 2023, www.wired.com/story/lexicon-scroll-doomscrolling-mindfulness-linguistics/. Accessed 29 Sept. 2023.

Curtis, Sophie. “Apple Accused of Racism after Face ID Fails to Identify Chinese iPhone X Users.” *The Mirror*, 21 Dec. 2017, www.mirror.co.uk/tech/apple-accused-racism-after-face-11735152. Accessed 4 Feb. 2024.

“Custom.” *Online Etymology Dictionary,* www.etymonline.com/word/custom#. Accessed 25 Sept. 2023.

“Customization.” *Online Etymology Dictionary,* www.etymonline.com/word/customization#. Accessed 25 Sept. 2023.

Daphné B. *Made-Up: A True Story of Beauty Culture Under Late Capitalism.* Coach House Books, 2022.

Davis, Stan. *Future Perfect.* 2nd ed., Basic Books, 1996.

Dayaram, Sareena. “Getting a New iPhone Every 2 Years Makes Less Sense than Ever.” *CNET*, 22 Nov. 2021, www.cnet.com/tech/mobile/getting-a-new-iphone-every-2-years-is-making-less-sense-than-ever/. Accessed 17 Jan. 2022.

Deb, Amrita. “Phantom Vibration and Phantom Ringing Among Mobile Phone Users: A Systematic Review of Literature.” *Asia-Pacific Psychiatry*, vol. 7, no. 3, 2015, pp. 231-39, http://dx.doi.org/10.1111/appy.12164.

Deibert, Ronald J. *Reset*. House of Anansi Press Inc, 2020.

Deleuze, Gilles. “Postscript on the Societies of Control.” *October*, vol. 59, 1992, pp. 3-7. *JSTOR*, www.jstor.org/stable/778828.

Desjardins, Jeff. “The Rising Speed of Technological Adoption.” *Visual Capitalist,* 14 Feb. 2018, www.visualcapitalist.com/rising-speed-technological-adoption/. Accessed 9 Jan. 2022.

Devanesan, Joe. “Can Face Recognition Biometrics Be Trusted? Millennials, Gen Zs Think So.” *TechHQ*, 11 Nov. 2022, www.techhq.com/2022/11/can-face-recognition-biometrics-be-trusted-millennials-gen-zs-think-so/. Accessed 9 Apr. 2024.

Dienstag, Joshua. *Pessimism: Philosophy, Ethic, Spirit.* Princeton University Press, 2009.

Di Placido, Dani. “The Dead Internet Theory, Explained.” *Forbes*, 16 Jan. 2024, www.forbes.com/sites/danidiplacido/2024/01/16/the-dead-internet-theory-explained/. Accessed 11 Mar. 2024.

Dixon, Stacy Jo. “Percentage 0f Social Media Users in the United States Who Have a Private Social Media Account as of September 2018, By Gender.” *Statista*, 25 Aug. 2023, www.statista.com/statistics/934907/users-have-private-social-media-account-gender-usa/. Accessed 4 Mar. 2024.

Donchev, Danny. "40 Mind Blowing YouTube Facts, Figures and Statistics – 2023." *FortuneLords,* 20 Mar. 2024, www.fortunelords.com/youtube-statistics/. Accessed 2 Apr. 2024.

Dong, Maggie. "Apple and Foxconn: Addressing Power Imbalances in Global Supply Chains" *Business Think*, 22 Feb. 2022, www.businessthink.unsw.edu.au/articles/apple-foxconn-power-imbalances-global-supply-chains/. Accessed 3 Apr. 2024.

Dreyfus, Hubert L. *On the Internet*. 2nd ed., Routledge, 2009.

Dunne, Anthony, and Fiona Raby. *Speculative Everything: Design, Fiction, and Social Dreaming*. MIT Press, 2013.

Eide, Tine A., et al. "Smartphone Restriction and Its Effect on Subjective Withdrawal Related Scores." *Frontiers in Psychology*, vol. 9, 2018, p. 1444. *PubMed Central*, https://doi.org/10.3389/fpsyg.2018.01444.

Eisenstein, Elizabeth. *The Printing Press as an Agent of Change*. Cambridge University Press, 1980.

Emerson, Lori. *Reading Writing Interfaces: From the Digital to the Bookbound*. University of Minnesota Press, 2014.

Eschler, Jordan, and Amanda Menking. "'No Prejudice Here': Examining Social Identity Work in Starter Pack Memes." *Social Media + Society*, vol. 4, no. 2, 2018, p. 205630511876881. *DOI.org (Crossref)*, https://doi.org/10.1177/2056305118768811.

Eyal, Nir. *Hooked: A Guide to Building Habit-Forming Products*. CreateSpace Independent Publishing, 2013.

Eyman, Douglas. *Digital Rhetoric.* University of Michigan Press, 2015.

Fan, Lai-Tze. "Writing While Wandering: Material and Spatial Contingency in Locative Media Narratives." *Writing Digital: Practice, Performance, Theory*, special issue of *Convergence: The International Journal of Research into New Media Technologies,* vol. 23, no. 1, 2017, pp. 5-19, https://doi.org/10.1177/1354856516679635.

Fasoli, Marco. "The Overuse of Digital Technologies: Human Weaknesses, Design Strategies and Ethical Concerns." *Philosophy & Technology,* vol. 34, no. 4, 2021, pp. 1409-27. DOI.org (Crossref), https://doi.org/10.1007/s13347-021-00463-6.

Farman, Jason. "Creative Misuse as Resistance: Surveillance, Mobile Technologies, and Locative Games." *Surveillance and Society,* vol. 12, no. 3, 2014, pp. 377-388, https://doi.org/10.24908/ss.v12i3.4981.

Farman, Jason. *Delayed Response: The Art of Waiting from the Ancient to the Instant World*. Yale University Press, 2018.

Faverio, Michelle. "Share of Those 65 and Older Who Are Tech Users Has Grown in the

Past Decade." *Pew Research Center*, 13 Jan. 2022, www.pewresearch.org/short-reads/2022/01/13/share-of-those-65-and-older-who-are-tech-users-has-grown-in-the-past-decade/. Accessed 12 Apr. 2024.

Feenberg, Andrew. *Technosystem: The Social Life of Reason*. Harvard University Press, 2017.

Fleckenstein, Kristie. "Materiality's Rhetorical Work: The Nineteenth-Century Parlor Stereoscope and the Second-Naturing of Vision." *Rhetoric, Through Everyday Things*, edited by Scot Barnett and Casey Boyle, University of Alabama Press, 2016, pp. 125-138.

Flensted, Torbjørn. "How Many People Use Google? Statistics & Facts (2024)." *SEO.Ai*, 26 Jan. 2024, www.seo.ai/blog/how-many-people-use-google. Accessed 19 Mar. 2024.

Flisfeder, Matthew. *Algorithmic Desire: Toward a New Structuralist Theory of Social Media*. Northwestern University Press, 2021.

Florman, Samuel. *The Existential Pleasures of Engineering.* St Martin's Press, 1976.

Fogg, BJ. *Persuasive Technology: Using Computers to Change What We Think and Do*. Morgan Kaufmann, 2002.

Forsey, Caroline. "How the Baader-Meinhof Phenomenon Secretly Influences Your Decisions." *Hubspot,* 20 Aug. 2018, www.blog.hubspot.com/marketing/baader-meinhof-phenomenon. Accessed 24 Nov. 2023.

Fortunati, Leopoldina. "Technologies As Places for Political Struggle." LogOut Symposium, 6 Mar. 2024, University of Toronto Mississauga Campus, ON.

Foss, Sonja, and Cindy Griffin. "Beyond Persuasion: A Proposal for An Invitational Rhetoric." *Communication Monographs*, vol. 62, no. 1, 1995.

Frank, Thomas. *The Conquest of Cool.* University of Chicago Press, 1997.

Friedman, Batya, and David G. Hendry. *Value Sensitive Design: Shaping Technology with Moral Imagination*. MIT Press, 2023.

Friedman, Thomas L. *Thank You for Being Late: An Optimist's Guide to Thriving in the Age of Accelerations*. Farrar, Straus and Giroux, 2016.

Fuchs, Christian. "Herbert Marcuse and Social Media." *Radical Philosophy Review*, vol. 19, no. 1, 2016, pp. 111-41. *DOI.org (Crossref)*, https://doi.org/10.5840/radphilrev20163950.

Fuchs, Christian. *Critical Theory of Communication: New Readings of Lukács, Adorno, Marcuse, Honneth and Habermas in the Age of the Internet*. University of Westminster Press, 2016.

FutureLearn. “What is a Smartphone?” *An Anthropology of Smartphones, FutureLearn,* University of College London www.futurelearn.com/info/courses/an-anthropology-of-smartphones/0/steps/221639, Accessed 15 Mar. 2024.

Gabrys, Jennifer. *Digital Rubbish.* University of Michigan Press, 2011.

Gallagher, John R. “Machine Time: Unifying *Chronos* and *Kairos* in an Era of Ubiquitous Technologies.” *Rhetoric Review*, vol. 39, no. 4, 2020, pp. 522-35, https://doi.org/10.1080/07350198.2020.1805573.

Ge, Jing, and Ulrike Gretzel. “Emoji Rhetoric: A Social Media Influencer Perspective.” *Journal of Marketing Management*, vol. 34, 2018, pp. 1272-1295, https://www.doi.org/10.1080/0267257X.2018.1483960.

Gergen, Kenneth. “The Challenge of Absent Presence.” *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, edited by James E. Katz and Mark Aakhus, Cambridge University Press, 2002, pp. 221-47.

Gitelman, Lisa. *Always Already New: Media, History and the Data of Culture*. MIT Press, 2006.

Gluck, Will. *Easy A*. Screen Gems, 2010.

Goffman, Erving. *The Presentation of Self in Everyday Life*. University of Edinburgh Social Sciences Research Centre, 1956.

Gollayan, Christian. “Apple’s Bigger iPhone XS Is Getting Slammed for Being ‘Sexist’.*”* *New York Times,* 14 Sept. 2018, www.nypost.com/2018/09/14/apples-bigger-screen-iphones-are-slammed-for-being-sexist/. Accessed 16 Sept. 2023.

Gouveia, Mafalda, et al. “Wristwatches Industry Report 2020-2021.” *International Industry Analysis,* 2021, www.strategosinstitute.com/uploads/93dc71606efd0b02ca874253ceb8bc143b68d0a2472a60302e910cc68841adeb.pdf. Accessed 27 Feb. 2024.

Greene, Dan. “The Erosion of Personal Ownership.” *Vox*, 21 Apr. 2021, www.vox.com/the-goods/22387601/smart-fridge-car-personal-ownership-internet-things. Accessed 2 Mar. 2024.

Greenfield, Adam. *Radical Technologies: The Design of Everyday Life*. Verso, 2017.

Griffiths Mark. “A ‘Components’ Model of Addiction Within a Biopsychosocial Framework.” *Journal of Substance Use,* vol. 10, 2005, pp. 191-19. *DOI.org (Crossref)*, https://doi.org/10.1080/1465980500114359.

Gumbrecht, Hans Ulrich, and Erik Butler. *Atmosphere, Mood, Stimmung: On a Hidden Potential of Literature*. Stanford University Press, 2012.

Haddon, Leslie. “Domestication Analyses and the Smartphone.” *The Oxford Handbook of Mobile Communication and Society*, edited by Richard Ling et al., Oxford University Press, 2020, pp. 14-28.

Hamblen, Matt. “Cell Phone, Smartphone – What’s the Difference?” *Computerworld*, 14 Mar. 2009, www.computerworld.com/article/2531555/cell-phone--smartphone----what-s-the-difference-.html. Accessed 27 Feb. 2024.

Han, Byung-Chul, and Erik Butler. *The Burnout Society*. Stanford University Press, 2015.

Han, Byung-Chul. *The Scent of Time*. 2nd ed., Polity Press, 2017.

Han, Byung-Chul, and Erik Butler. *The Transparency Society*. Stanford University Press, 2015.

Hanin, Mark. “Theorizing Digital Distraction.” *Philosophy & Technology*, vol. 34, 2021, pp. 1-12.

Hankey, Stephanie, et al. “Smartphone as Lifeline: Designing Technology for a Changing World.” *Tactical Tech,* 21 June 2020, https://cdn.ttc.io/s/tacticaltech.org/smartphone-as-lifeline.pdf. Accessed 29 Mar. 2024.

Harris, Michael. *The End of Absence: Reclaiming What We’ve Lost in a World of Constant Connection*. Penguin Group, 2014.

Haskins, Ekaterina. “Between Archive and Participation: Public Memory in a Digital Age.” *Rhetoric Society Quarterly*, vol. 37, no. 4, Oct. 2007, pp. 401-422. *DOI.org (Crossref)*, https://doi.org/10.1080/02773940601086794.

Hatley, Alana. *Rhetoric and Plants*. 2018. University of South Carolina, PhD Dissertation. *Scholar Commons*, https://scholarcommons.sc.edu/cgi/viewcontent.cgi?article=5919&context=etd.

Hawhee, Debra. “Kairotic Encounters.” *Perspectives on Rhetorical Invention*, edited by Janet Atwill, University of Tennesee Press, 2002, pp. 16-35.

Hayes, Adam. “YouTube Stats: Everything You Need to Know In 2024!” *Wyzowl*, 20 Feb. 2024, www.wyzowl.com/youtube-stats/. Accessed 31 Mar. 2024.

Heath, Chip, and Dan Heath. *Made to Stick*. Random House, 2007.

Helles, Rasmus. “Mobile Communication and Intermediality.” *Mobile Media & Communication*, vol. 1, no. 1, 2013, pp. 14-19. *DOI.org (Crossref)*, https://doi.org/10.1177/2050157912459496.

Helles, Rasmus. “Theorising Individual Media Use: Mobile Media in Everyday Life.” *The Media and the Mundane: Communication Across Media in Everyday Life*, edited by Kjetil Sandvik et al., Nordicom, 2016, pp. 31-44.

Hodder, Ian. “The Entanglements of Humans and Things: A Long-Term View.” *New Literary History*, vol. 45, no. 1, 2014, pp. 19-36. *JSTOR*, www.jstor.org/stable/24542579.

Hoffner, Cynthia A., et al. "'I Miss My Mobile Phone!': Self-Expansion via Mobile Phone and Responses to Phone Loss." *New Media & Society*, vol. 18, no. 11, 2016, pp. 2452-68. *DOI.org (Crossref)*, https://doi.org/10.1177/1461444815592665.

Home Run Inn Pizza. "Culinary Confessions: Cooking Habits of Gen Z & Millennials." *Home Run Inn Pizza*, 16 Aug. 2023, www.homeruninnpizza.com/news-blog/fun-facts/cooking-habits-gen-z-millennials/. Accessed 28 Mar. 2024.

hooks, bell. *Killing Rage: Ending Racism*. 1st ed., Henry Holt and Co., 1995.

Houston, Robert A. "The Growth of Literacy in Western Europe from1500 to 1800." *Brewminate: A Bold Blend of News and Ideas,* 28 Nov. 2011, www.brewminate.com/the-growth-of-literacy-in-western-europe-from-1500-to-1800/. Accessed 8 Jan. 2022.

Howarth, Josh. "iPhone vs Android User Stats (2024 Data)." *Exploding Topics*, 13 Oct. 2023, www.explodingtopics.com/blog/iphone-android-users. Accessed 9 Feb. 2024.

Huyssen, Andreas. *Twilight Memories: Marking Time in a Culture of Amnesia.* Routledge, 1995.

Huang, Xiaoyun, and Jessica Vitak. "'Finsta Gets All My Bad Pictures': Instagram Users' Self-Presentation Across Finsta and Rinsta Accounts." *Proceedings of the ACM on Human-Computer Interaction*, vol. 6, no. 1, 2022, pp. 1-25. *DOI.org (Crossref),* https://doi.org/10.1145/3512916.

Ingraham, Chris. "The Suddener World: Photography and Ineffable Rhetoric." *Philosophy & Rhetoric*, vol. 50, no. 2, 2017, pp. 129-52. *DOI.org (Crossref)*, https://doi.org/10.5325/philrhet.50.2.0129.

Innis, Harold A., et al. *Empire & Communications*. Illustrated ed, Press Porcépic, 1986.

---. *The Bias of Communication*. 2nd ed., University of Toronto Press, 2008.

Ito, Mizuko. "Camera Phones Changing the Definition of Picture-Worthy." *Japanese Media Review*, 2003.

"-ize." *Collins English Dictionary.* Penguin Random House and Harper Collins Publishers, 2019, www.collinsdictionary.com/dictionary/english/ize. Accessed 4 June 2023.

Jacobsen, Benjamin, and David Beer. *Social Media and the Automatic Production of Memory: Classification, Ranking and the Sorting of the Past*. Bristol University Press, 2021.

Jay, Christina, and Hunter Rising. "How Long Should You Wait to Reply to a Text? Texting Etiquette for Crushes and More." *WikiHow,* 18 Sept. 2023. www.wikihow.com/How-Long-to-Wait-to-Reply-to-a-Text. Accessed 3 Jan. 2022.

Jenkins, Henry *Convergence Culture: Where Old and New Media Collid*e. NYU Press, 2007.

Jensen, Klaus Bruhn, and Rasmus Helles. "Speaking into the System: Social Media and Many-to-One Communication." *European Journal of Communication*, vol. 32, no. 1, 2017, pp. 16-25. *DOI.org (Crossref)*, https://doi.org/10.1177/0267323116682805.

Jones, Julie M. "The Looking Glass Lens: Self-Concept Changes Due to Social Media Practices." *The Journal of Social Media in Society*, 2015, vol. 4, no. 1, pp. 100-125.

Jones, Lynette A. *Haptics*. MIT Press, 2018.

Jones, Steven E. *Against Technology: From Luddites to Neo-Luddism*. Routledge, 2006.

Kalin, Jason, and Jordan Frith. "Wearing the City: Memory P(a)Laces, Smartphones, and the Rhetorical Invention of Embodied Space." *Rhetoric Society Quarterly*, vol. 46, no. 3, 2016, pp. 222-35. *DOI.org (Crossref)*, https://doi.org/10.1080/02773945.2016.1171692.

Kampherm, Monique. *Masks and Caricatures: Prosopopoeia, Ethopoeia, and the Effect of Social Media on Canadian Political Leaders' Debates*. 2023. University of Waterloo, PhD Dissertation. *UWSpace*, www.uwspace.uwaterloo.ca/handle/10012/19090.

Kang, Jin, and Lewen Wei. "Let Me Be at My Funniest: Instagram Users' Motivations for Using Finsta (a.k.a., Fake Instagram)." *The Social Science Journal*, vol. 57, no. 1, 2020, pp. 58-71. *DOI.org (Crossref)*, https://doi.org/10.1016/j.soscij.2018.12.005.

Kara, Siddarth. "Is Your Phone Tainted by the Misery of the 35,000 Children in Congo's Mines?" *The Guardian,* 12 Oct. 2018, www.theguardian.com/global-development/2018/oct/12/phone-misery-children-congo-cobalt-mines-drc. Accessed 17 Jan. 2022.

Karppi, Tero. "Undoing the Outside: On Defaults and Off-Facebook Activity." *Undoing Networks*, edited by Tero Karppi, Urs Stäheli, Clara Wieghorst, and Lea P. Zierott, meson press and University of Minnesota Press, 2021.

Katz, James E. *Handbook of Mobile Communication Studies*. MIT press, 2008.

Katz, James E., and Mark Aakhus, editors. *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*. Cambridge University Press, 2002.

Katz-Gerro, Tally. "Cultural Consumption Research: Review of Methodology, Theory, and Consequence." *International Review of Sociology*, vol. 14, 2004, pp. 11-29, http://dx.doi.org/10.1080/0390670042000186743.

Kelly, Ashley Rose, et al. "Considering *Chronos* and *Kairos* in Digital Media Rhetorics." *Digital Rhetoric and Global Literacies,* edited by Gustav Verhulsdonck and Marohang Limbu, IGI Global, 2014, pp. 227-47.

Kender, Kay, and Christopher Frauenberger. "The Shape of Social Media: Towards Addressing (Aesthetic) Design Power." *Designing Interactive Systems Conference*,

June 13-17, 2022, Virtual Event, Australia, ACM, pp. 365-376, https://doi.org/10.1145/3532106.3533470.

Khatchatourov, Armen. *Digital Identities in Tension*. ISTE Ltd and John Wiley & Sons, 2019.

Kirschenbaum, Matthew. *Track Changes: A Literary History of Word Processing.* Harvard University Press, 2016.

Kittler, Friedrich. *Discourse Networks 1800-1900.* Stanford University Press, 1990.

Kneese, Tamara. "Breakdown as Method: Screenshots for Dying Worlds." *Into the Air,* special issue of *Media Theory*, edited by Hannah Dick et al., vol. 5, no. 2, 2021, pp. 141-166, https://journalcontent.mediatheoryjournal.org/index.php/mt/article/view/924.

Kornbluh, Anna. *Immediacy or, The Style of Too Late Capitalism.* Verso, 2023.

Krämer, Sybille. "The 'Cultural Technique of Flattening': An Essay Introducing and at the Same Time Revising an Idea." *Metode*, vol. 1., 2023, https://metode.r-o-m.no/media/files/articles/sybille-kraemer.pdf.

Kuss, Daria, and Mark Griffiths. "Social Networking Sites and Addiction: Ten Lessons Learned." *International Journal of Environmental Research and Public Health*, vol. 14, no. 3, 2017, pp. 311-328, https://doi.org/10.3390%2Fijerph14030311.

LaBrie, Joseph W., et al. "'Follow My Finsta': Drinking Trajectories in Relation to Auxiliary Instagram Accounts." *Journal of American College Health,* vol. 71, no. 3, 2023, pp. 749-57. DOI.org (Crossref), https://doi.org/10.1080/07448481.2021.1906683.

Lanier, Jaron. *Ten Arguments for Deleting Your Social Media Accounts Right Now*. Henry Holt and Co., 2018.

Lanier, Jaron. *You Are Not a Gadget*. Alfred A. Knopf, 2010.

Lanham, Richard A. "Digital Rhetoric: Theory, Practice, and Property." *Literacy Online: The Promise (and Peril) of Reading and Writing with Computers*, edited by Myron Tuman, University of Pittsburgh Press, 1992, pp. 221-243.

Laramie, David. *Emotional and Behavioral Aspects of the Mobile Phone*. Alliance International University and California School of Professional Psychology, 2007.

Latour, Bruno. *Pandora's Hope: Essays on the Reality of Science Studies*. Harvard University Press, 1999.

Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network-Theory.* Oxford University Press, 2005.

Lee, Frank, and Asif Husain. "Low Battery Anxiety Grips Nine Out of Ten People." *LG Electronics MobileComm U.S.A. Inc*, 19 May 2016, www.lg.com/us/PDF/press-

release/LG_Mobile_Low_Battery_Anxiety_Press_Release_FINAL_05_19_2016.pdf . Accessed 5 Jan. 2022.

Lenovo. "What Is a Smartphone and Why Do I Need One?" *Lenovo*, www.lenovo.com/ie/en/faqs/pc-life-faqs/what-is-a-smartphone/. Accessed 3 Mar. 2024.

Leonhard, Gerd. *Technology vs. Humanity: The Coming Clash between Man and Machine*. The Future Agency, 2016.

Leung, Iris. "Blackberry Limited." *The Canadian Encyclopedia*, 5 Jan. 2022, www.thecanadianencyclopedia.ca/en/article/blackberry-limited. Accessed 28 October 2023.

Licoppe, Christian. "Mobile Phones in Action: The Ethnomethodology and Conversation Analysis Perspective." *The Oxford Handbook of Mobile Communication and Society*, edited by Richard Ling et al., Oxford University Press, 2020, pp. 94-112.

Licoppe, Christian. "The Mobile Phone's Ring." *Handbook of Mobile Communication Studies*, edited by James E. Katz, MIT Press, 2008, pp. 139-154.

Lienhard, John H. *How Invention Begins: Echoes of Old Voices in the Rise of New Machines*. Oxford University Press, 2006.

Lin, Jian, et al. "Theorising TikTok Cultures: Neuro-Images in the Era of Short Videos." *Media, Culture & Society*, vol. 45, no. 8, 2023, pp. 1550-67. *DOI.org (Crossref)*, https://doi.org/10.1177/01634437231202167.

Ling, Richard. *Taken for Grantedness: The Embedding of Mobile Communication into Society*. MIT Press, 2012.

Logan, Robert K. "Understanding Humans: The Extensions of Digital Media." *Information*, vol. 10, no. 10, 2019, pp. 304-310. *DOI.org (Crossref)*, https://doi.org/10.3390/info10100304.

Lomborg, Stine. "Exercising with the Smartphone." *The Media and the Mundane: Communication Across Media in Everyday Life*, edited by Kjetil Sandvik et al., Nordicom, 2016, pp. 75-90.

Losh, Elizabeth. *Virtualpolitik: An Electronic History of Government Media-Making in a Time of War, Scandal, Disaster, Miscommunication, and Mistakes*. MIT Press, 2009.

Lou, Chen. "Social Media Influencers and Followers: Theorization of a Trans-Parasocial Relation and Explication of Its Implications for Influencer Advertising" *Journal of Advertising*, vol. 51, no. 1, 2022, pp. 4-21, https://doi.org/10.1080/00913367.2021.1880345.

Loubere, Philip A. *A History of Communication Technology*. Routledge, Taylor & Francis Group, 2021.

Lowenthal, David. *The Past Is a Foreign Country – Revisited*. 2nd ed., Cambridge University Press, 2013.

Lupton, Deborah. *The Quantified Self: A Sociology of Self-Tracking*. Polity Press, 2016.

Maccormac, Earl R. "Men and Machines: The Computational Metaphor." *Philosophy and Technology II*, edited by Carl Mitcham and Alois Huning, vol. 90, Springer Netherlands, 1986, pp. 157-70. *DOI.org (Crossref)*, https://doi.org/10.1007/978-94-009-4512-8_11.

Madianou, Mirca. "Polymedia and Mobile Communication." *The Oxford Handbook of Mobile Communication and Society*, edited by Richard Ling et al., Oxford University Press, 2020, pp. 67-80.

Maheirie, Katia. "Identity and Subjectivity: Advances and Paradoxes for the Twenty-First Century." *Revista Katalysis*, vol. 7, no. 2, 2004, pp. 143-45, https://www.redalyc.org/pdf/1796/179617806001.pdf.

Manovich, Lev. "100 Billion Data Rows per Second: Media Analytics in the Early 21st Century." *International Journal of Communication,* 2018, vol. 12, pp. 473-488.

---. "The Aesthetic Society: Instagram as a Life Form." *Data Publics*, edited by Peter Mörtenboeck and Helge Mooshammer. Routledge, forthcoming.

---. *The Language of New Media*. MIT Press, 2001.

Mansfield, Nick. *Subjectivity: Theories of the Self From Freud to Haraway*. Routledge, 2000.

Mateus, Samuel (Editor). *Media Rhetoric: How Advertising and Digital Media Influence Us*. Cambridge Scholars Publishing, 2021.

Marcuse, Herbert. *Eros and Civilization*. Vintage Books, 1961.

Marcuse, Herbert. *One-Dimensional Man*. Beacon Press, 1964.

McGuigan, Lee, and Graham Murdock. "The Medium Is the Marketplace: Digital Systems and the Intensification of Consumption." *Canadian Journal of Communication*, vol. 40, no. 4, 2015. *DOI.org (Crossref)*, https://doi.org/10.22230/cjc.2015v40n4a2948.

McLachlan, Stacey. "Instagram Story Hacks: 30 Tricks and Features You Should Know." *Social Media Marketing & Management Dashboard*, 28 June 2023, www.blog.hootsuite.com/instagram-story-hacks/. Accessed 12 Mar. 2024.

McLuhan, Marshall. *Gutenberg Galaxy: The Making of Typographic Man*. University of Toronto Press, 1962.

---. *Understanding Media: The Extensions of Man*. MIT Press, 1994.

McPherson, Tara. "Reload: Liveness, Mobility, and the Web." *New Media, Old Media: A History and Theory Reader*, edited by Wendy Hui Kyong Chun and Thomas Keenan, Routledge, 2006, pp. 199-208.

Miller, Bernard Alan. *Rhetoric's Earthly Realm*. Parlor Press, 2011.

Miller, Carolyn R. "Technology as a Form of Consciousness: A Study of Contemporary Ethos." *Central States Speech Journal*, vol. 29, no. 4, 1978, pp. 228-36. *DOI.org (Crossref)*, https://doi.org/10.1080/10510977809367983.

Miller, Greg. "What's Up With That? Phantom Cellphone Vibrations." *Wired*, 23 Sept. 2014, www.wired.com/2014/09/whats-phantom-cellphone-vibrations/. Accessed 3 Apr. 2024.

Mosco, Vincent. *Becoming Digital: Toward a Post-Internet Society*. Emerald Publishing, 2017.

Molla, Rani. "We're Spending More Time on Our Phones despite the "Time Well Spent" Movement." *Vox*, 6 Jan. 2020, www.vox.com/recode/2020/1/6/21048116/tech-companies-time-well-spent-mobile-phone-usage-data. Accessed 8 Jan. 2022.

Morozov, Evgeny. *To Save Everything, Click Here: The Folly of Technological Solutionism*. PublicAffairs, 2013.

Muckelbauer, John. "Chapter 2: Implicit Paradigms of Rhetoric." *Rhetoric, Through Everyday Things*, edited by Scot Barnett and Casey Boyle, University of Alabama Press, 2016, pp. 30-41.

Mulvey, Laura. "Visual Pleasure and Narrative Cinema." *Screen,* vol. 16, no. 3, 1975.

Murray Horowitz, Janet. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. Free Press, 1997.

Myers, Kelly A. "*Metanoia* and the Transformation of Opportunity." *Rhetoric Society Quarterly*, vol. 41, no. 1, 2011, pp. 1-18. *DOI.org (Crossref)*, https://doi.org/10.1080/02773945.2010.533146.

Natale, Simone, and Emiliano Treré. "Vinyl Won't Save Us: Reframing Disconnection as Engagement." *Media, Culture & Society*, vol. 42, no. 4, 2020, pp. 626-33. *DOI.org (Crossref)*, https://doi.org/10.1177/0163443720914027.

NetNewsLedger. "Average Person Scrolls 300 Feet of Social Media Content Daily." 1 Jan. 2018, www.netnewsledger.com/2018/01/01/average-person-scrolls-300-feet-social-media-content-daily/. Accessed 9 Dec. 2021.

Newman, Nic. "Overview and key findings of the 2022 Digital News Report." *Reuters Institute.* 15 June 2022, https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2022/dnr-executive-summary. Accessed 18 Jan. 2024.

Newport, Cal. *Digital Minimalism: Choosing a Focused Life in a Noisy World.* Portfolio, 2019.

Nisbet, Robert. *History of the Idea of Progress.* Basic Books, 1980.

Nodder, Chris. *Evil by Design: Interaction Design to Lead Us into Temptation.* Wiley, 2013.

Odell, Jenny. *How to Do Nothing: Resisting the Attention Economy*. Penguin Random House, 2019.

Oladipo, Tamilore. "23 Top Social Media Sites to Consider for Your Brand in 2024."*Buffer*, 22 Jan. 2024, www.buffer.com/library/social-media-sites/. Accessed 4 Mar. 2024.

Olson, Jay A., et al. "Sex, Age, and Smartphone Addiction Across 41 Countries." *International Journal of Mental Health and Addiction*, 2023. *DOI.org (Crossref)*, https://doi.org/10.1007/s11469-023-01146-3.

Olson, Parmy. "A Massive Social Experiment On You Is Under Way, And You Will Love It." *Forbes*, 21 Jan. 2015, www.forbes.com/sites/parmyolson/2015/01/21/jawbone-guinea-pig-economy/?sh=2657e5e75831. Accessed 16 June 2023.

Oudshoorn, Nelly, and Trevor Pinch. *How Users Matter: The Co-Construction of Users and Technology.* MIT Press, 2003.

Packer, Jeremy, et al. *The Prison House of the Circuit: Politics of Control from Analog to Digital.* University of Minnesota Press, 2023.

Packer, Joseph, and Ethan Stoneman. *A Feeling of Wrongness: Pessimistic Rhetoric on the Fringes of Popular Culture.* Pennsylvania State University Press, 2018.

Papacharissi, Zizi, editor. *A Networked Self: Identity, Community and Culture on Social Network Sites*. Routledge, 2011.

Papert, Seymour. *Mindstorms: Children, Computers, and Powerful Ideas*. Basic Books, 1980.

Parikka, Jussi. *What Is Media Archaeology?* University of California Press, 2012.

PCMag. "Definition of Smartphone." www.pcmag.com/encyclopedia/term/smartphone. Accessed 3 Mar. 2024.

Pettman, Dominic. *Infinite Distraction*. Polity Press, 2016.

Pine, B. Joseph. *Mass Customization – The New Frontier in Business Competition*. Harvard Business School Press, 1993.

Pineda, Kirk. "The Importance of Being Seen." *HumanTold*, 17 May 2022, www.humantold.com/blog/the-importance-of-being-seen/. Accessed 28 Mar. 2024.

Pinto, Violet. "E-Waste Hazard: The Impending Challenge." *Indian Journal of Occupational and Environmental Medicine*, vol. 12, no. 2, 2008, https://doi.org/10.4103%2F0019-5278.43263.

Purswani, Tara. "The iOS 16 Guide: Focus Mode Improves." *Rocket Yard*, 22 Nov. 2022, www.eshop.macsales.com/blog/84326-the-ios-16-guide-focus-mode-improves/. Accessed 23 Jan. 2024.

Rangarajan, Sinduja. “Hey Siri—Why Don’t You Understand More People Like Me?” *Mother Jones*, 21 Feb. 2023, www.motherjones.com/media/2021/02/digital-assistants-accents-english-race-google-siri-alexa/. Accessed 29 Mar. 2024.

Raza, Ali. “Researchers Track Global Smartphone Addiction Patterns in Largest-Ever Study.” *University of Toronto Mississauga,* 7 Nov. 2023, www.utm.utoronto.ca/main-news/researchers-track-global-smartphone-addiction-patterns-largest-ever-study. Accessed 10 Mar. 2024.

Reeves, Joshua. “Temptation and Its Discontents: Digital Rhetoric, Flow, and the Possible.” *Rhetoric Review*, vol. 32, no. 3, 2013, pp. 314-30. *DOI.org (Crossref)*, https://doi.org/10.1080/07350198.2013.797878.

Reid, Alex. *Rhetorics of the Digital Nonhumanities.* Southern Illinois University Press, 2022.

Rheingold, Howard. *Tools for Thought*. MIT Press, 2000.

Richter, Felix. “Infographic: Landline Phones Are a Dying Breed.” *Statista Daily Data*, 2 Dec. 2022, www.statista.com/chart/2072/landline-phones-in-the-united-states. Accessed 22 Sept. 2023.

Rickert, Thomas J. *Ambient Rhetoric: The Attunements of Rhetorical Being*. University of Pittsburgh Press, 2013.

Ronell, Avital. *The Telephone Book: Technology, Schizophrenia, Electric Speech.* University of Nebraska Press, 1989.

Rosner, Daniela K. *Critical Fabulations: Reworking the Methods and Margins of Design*. MIT Press, 2018.

Rouvroy, Antoinette. “The End(s) of Critique: Data Behaviourism versus Due Process.” *Privacy, Due Process, and the Computational Turn: Philosophers of Law Meet Philosophers of Technology*, edited by Mireille Hildebrandt and Ekatarina de Vries, Routledge, 2012, pp. 143-68.

Rushkoff, Douglas. *Present Shock: When Everything Happens Now*. Current, 2013.

San Cornelio, G. “Instagram Aesthetics for Social Change: A Narrative Approach to Visual Activism on Instagram.” *The SAGE Handbook of Digital Society*, edited by William Housley, SAGE Publications, 2023, pp. 188-208.

Sandvik, et al., editors. *The Media and the Mundane: Communication Across Media in Everyday Life*. Nordicom, 2016.

Sauer, Vera J., et al. “The Phantom in My Pocket: Determinants of Phantom Phone Sensations.” *Mobile Media & Communication,* vol. 3, no. 3, 2015, pp. 293-316, https://doi.org/10.1177/2050157914562656.

Sax, David. *The Future is Analog: How to Create a More Human World.* PublicAffairs, 2022.

Schonfeld, Ariel, et al. “Cyberbullying and Adolescent Suicide.” *The Journal of the American Academy of Psychiatry and the Law*, vol. 51, no. 1, 2023, pp. 112-119, https://doi.org/10.29158/JAAPL.220078-22.

Schüll, Natasha. “Data for Life: Wearable Technology and the Design of Self-care,” *BioSocieties,* vol. 11, no. 3, 2016, pp. 317-333, https://doi.org/10.1057/biosoc.2015.47.

Schreiber, Maria. "Audiences, Aesthetics and Affordances Analysing Practices of Visual Communication on Social Media" *Digital Culture & Society*, vol. 3, no. 2, 2017, pp. 143-164, https://doi.org/10.14361/dcs-2017-0209.

Schwartz, Barry. *The Paradox of Choice: Why More is Less*. HarperCollins, 2004.

Scott-Warren, Jason. “Reading Graffiti in the Early Modern Book.” *Huntington Library Quarterly’*, vol. 73, no. 3, 2010, pp. 363-81. *JSTOR*, https://doi.org/10.1525/hlq.2010.73.3.363.

Seaver, Nick. “Captivating Algorithms: Recommender Systems as Traps.” *Journal of Material Culture*, vol. 24, no. 4, 2019, pp. 421-36. *DOI.org (Crossref)*, https://doi.org/10.1177/1359183518820366.

Sellen, Abigail, and Richard Harper. *The Myth of the Paperless Office*. MIT Press, 2003.

Sharma, Neelima, et al. “Rising Concern of Nomophobia Amongst Indian Medical Students.” *International Journal of Research in Medical Sciences*, vol. 3, no. 3, 2017, pp. 705-707, http://dx.doi.org/10.5455/2320-6012.ijrms20150333.

Sharma, Sarah. *In the Meantime: Temporality and Cultural Politics.* Duke University Press, 2014.

Sisto, Davide. *Remember Me: Memory and Forgetting in the Digital Age*, translated by Alice Kilgarriff, Polity Press, 2021.

Smith, Kit. “53 Incredible Facebook Statistics and Facts.” *Brandwatch*, 1 June 2019, www.brandwatch.com/blog/facebook-statistics/. Accessed 8 Jan. 2022.

Spajic, Damjan Jugovic. “How Much Time Does the Average Person Spend on Their Phone?” *Kommando Tech,* 11 Feb. 2020, www.kommandotech.com/statistics/how-much-time-does-the-average-person-spend-on-their-phone. Accessed 9 Jan. 2022.

Stephens, Mitchell. “History of Television.” *Grolier Multimedia Encyclopedia,* 2000, www.stephens.hosting.nyu.edu/History%20of%20Television%20page.html. Accessed 2 July 2023.

Stiegler, Bernard. *The Age of Disruption: Technology and Madness in Computational Capitalism-Wiley*, 2nd ed., Polity Press, 2019.

Stokel-Walker, Chris. *TikTok Boom: China's Dynamite App and the Superpower Race for Social Media*. Canbury Press, 2021.

Stout, Dustin. "Social Media Statistics 2024: Top Networks By the Numbers." *Dustin Stout,* 31 Mar. 2024. www.dustinstout.com/social-media-statistics/. Accessed 2 Apr. 2024.

Švelch, Jan. "Redefining Screenshots: Toward Critical Literacy of Screen Capture Practices." *Convergence: The International Journal of Research into New Media Technologies*, vol. 27, no. 2, 2021, pp. 554-69. *DOI.org (Crossref)*, https://doi.org/10.1177/1354856520950184.

Taylor, Billie Lever, et al. "Mums Alone: Exploring the Role of Isolation and Loneliness in the Narratives of Women Diagnosed with Perinatal Depression." *Journal of Clinical Medicine*, vol. 10, no. 11, 2021, p. 2271. *PubMed Central*, https://doi.org/10.3390/jcm10112271.

Taylor, Charles. "The Politics of Recognition." *Multiculturalism: Examining the Politics of Recognition*, edited by Amy Gutmann. Princeton University Press, 1994, pp. 25-73.

Thaler, Richard, and Cass Sunstein. *Nudge: Improving Decisions about Health, Wealth, and Happiness (The Final Edition).* 2nd ed., University of Chicago Press, 2021.

"The Apparatgeist Calls." *The Economist*, 30 Dec. 2009, www.economist.com/briefing/2009/12/30/the-apparatgeist-calls. Accessed 17 Dec. 2023.

The Constitution of the United States. *Constitution Annotated,* www.constitution.congress.gov/constitution/amendment-4/. Accessed 20 Apr. 2024.

The Investopedia Team. "Web 3.0 Explained, Plus the History of Web 1.0 and 2.0." *Investopedia*, 11 Mar. 2024, www.investopedia.com/web-20-web-30-5208698. Accessed 27 Apr. 2024.

Thoreau, Henry David, and Thomas Carew. *Walden; or, Life in the Woods.* Ticknor and Fields, 1854.

Thorhauge, Anne Mette. "Balancing the Flows: Cross-Media Communication in an Everyday Life Context." *The Media and the Mundane: Communication Across Media in Everyday Life*, edited by Kjetil Sandvik et al., Nordicom, 2016, pp. 59-73.

Towns, Armond. "Black Media Philosophy and Beyond." Critical Tech Talk Speaker Series, 20 Sept. 2023, University of Waterloo, ON, https://www.youtube.com/watch?app=desktop&v=whWeYuLfc1g. Accessed 19 Oct. 2023.

Tucker, Ian. "Evgeny Morozov: 'We Are Abandoning All the Checks and Balances.'" *The Observer*, 9 Mar. 2013. *The Guardian*, www.theguardian.com/technology/2013/mar/09/evgeny-morozov-technology-solutionism-interview. Accessed 2 Mar. 2024.

Turkle, Sherry. *Alone Together: Why We Expect More from Technology and Less from Each Other*. Basic Books, 2011.

---. "Always-On/Always-On-You: The Tethered Self." *Handbook of Mobile Communication Studies*, edited by James E. Katz, MIT Press, 2008, pp. 121-38. *DOI.org (Crossref)*, https://doi.org/10.7551/mitpress/9780262113120.003.0010.

---. *Reclaiming Conversation: The Power of Talk in a Digital Age.* Penguin Press, 2015.

Turner, Ash. "How Many Smartphones are in the World? (2024)*" BankMyCell.* 13 Mar. 2024, www.bankmycell.com/blog/how-many-phones-are-in-the-world. Accessed 16 Mar. 2024.

Twenge, Jean. *iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy—and Completely Unprepared for Adulthood—and What That Means for the Rest of Us*. Atria Books, 2018.

Twenge, Jean. *Generations: The Real Differences Between Gen Z, Millennials, Gen X, Boomers, and Silents—and What They Mean for America's Future.* Atria Books, 2023.

Understanding Media and Culture – Open Textbook. University of Minnesota Press, 2010. https://open.lib.umn.edu/mediaandculture/.

Uricchio, William. "Data, Culture, and the Ambivalence of Algorithms." *The Datafied Society: Studying Culture through Data*, edited by Mirko Tobias Schäfer and Karin van Es, Amsterdam University Press 2017, pp.25-137.

Vanhemert, Kyle. "Apple Is Going to Kill the Home Screen." *Wired*, 8 June 2015. www.wired.com/2015/06/ios9-proactive-apple-is-going-to-kill-the-home-screen/. Accessed 27 Feb. 2024.

Vatz, Richard E. "The Myth of the Rhetorical Situation." *Philosophy and Rhetoric*, vol. 6, no. 3, 1973, pp. 154-161.

Veale, Michael. "Rights for Those Who Unwillingly, Unknowingly and Unidentifiably Compute!" *The Person and the Future of Private Law,* edited by Hans-Wolfgang Micklitz and Giussepe Vettori. Hart, forthcoming. *DOI.org (Crossref)*, https://doi.org/10.31235/osf.io/4ugxd.

Verhoeff, Nanna, and Heidi Rae Cooley. "Performativity/Expressivity: The Mobile Micro Screen and Its Subject." *Technē/Technology: Researching Cinema and Media Technologies, their Development, Use and Impact.* Edited by Annie van den Oever, Amsterdam University Press, 2014, pp. 207-216.

Vincent, Jane, and Leslie Haddon (Editors). *Smartphone Cultures*. Taylor and Francis, 2019.

Vorderer, Peter, and Christoph Klimmt. "The Mobile User's Mindset in a Permanently Online, Permanently Connected Society." *The Oxford Handbook of Mobile*

Communication and Society, edited by Richard Ling et al., Oxford University Press, 2020, pp. 53-67.

Walters, Shannon. *Rhetorical Touch: Disability, Identification, Haptics.* University of South Carolina Press, 2014.

Warnick, Barbara. *Critical Literacy in a Digital Era: Technology, Rhetoric, and the Public Interest.* Erlbaum, 2002.

Weizenbaum, Joseph. *Computer Power and Human Reasons: From Judgment to Calculation.* W.H. Freeman, 1976.

Werning, Stefan: "The Home Screen as an Anchor Point for Mobile Media Use: Technologies, Practices, Identities." *European Journal of Media Studies,* vol. 5, no. 2, 2016, pp. 151-170, https://doi.org/10.25969/mediarep/3361.

"What Is The 'Baader-Meinhof Phenomenon'?" *Dictionary.Com*, 28 June 2022, www.dictionary.com/e/tech-science/baader-meinhof-phenomenon/. Accessed 4 Nov. 2023.

White, Eric Charles. *Kaironomia: On the Will-to-Invent*. Cornell University Press, 1987.

Whitmer, Jennifer M. "You Are Your Brand: Self-branding and the Marketization of Self." *Sociology Compass,* vol. 13, no. 3, 2019, pp. 1-10, https://doi.org/10.1111/soc4.12662.

Williams, Raymond, and Ederyn Williams. *Television: Technology and Cultural Form*. Routledge, 2004.

Wilson, Timothy, et al. "Just Think: The Challenges of the Disengaged Mind." *Science*, 2014, vol. 345, no. 6192, https://doi.org/10.1126%2Fscience.1250830.

Winner, Langdon. "Technologies as Forms of Life." *Ethics and Emerging Technologies*, edited by Ronald L. Sandler, Palgrave Macmillan UK, 2014, pp. 48-60.

Wise, Jason. "Top OnlyFans Earners Chart 2024 (And How Much They Earn)." *EarthWeb*, 28 Jan. 2024, www.earthweb.com/top-onlyfans-earners/. Accessed 24 Mar 2024.

Wu, Angela Xiao, et al. "Going with the Flow: Nudging Attention Online." *New Media & Society*, vol. 23, no. 10, 2021, pp. 2979-98. *DOI.org (Crossref)*, https://doi.org/10.1177/1461444820941183.

Wu, Tim. *The Attention Merchants: The Epic Scramble to Get Inside Our Heads*. Alfred A. Knopf, 2016.

Wyatt, Sally, et al. "The Digital Divide, Health Information and Everyday Life." *New Media & Society*, vol. 7, no. 2, 2005, pp. 199-218, https://doi.org/10.1177/1461444805050747.

Zalani, Rochi. "Average Screen Time: Statistics 2021." *Elite Content Marketer,* www.elitecontentmarketer.com/screen-time-statistics/. Accessed 8 Jan. 2022.

Zappen, James. “Digital Rhetoric: Toward an Integrated Theory.” *Technical Communication Quarterly*, vol. 14, no. 3, 2005, pp. 319-325, https://doi.org/10.1207/s15427625tcq1403_10.

Zima, Peter. *Subjectivity and Identity: Between Modernity and Postmodernity*. Bloomsbury Studies in Philosophy, 2015.

Zuboff, Shoshana. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. PublicAffairs, 2019.