Digging Online:
Crowdfunding for Archaeology

by

Matthew Seguin

A thesis

presented to the University of Waterloo

in the fulfillment of the

thesis requirements for the degree of

Master of Arts

in

Public Issues Anthropology

Waterloo, Ontario, Canada, 2017

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

Archaeology permits us precious glimpses into the mysterious past, captivating the public with its intrigue. However, the expensive nature of archaeological work often leads to a struggle for funding. Crowdfunding allows us to leverage archaeology's popular appeal to find the funds we have long struggled (and often failed) to obtain through traditional means. Furthermore, it lets us interact with the public in a new and novel way, allowing the different voices and narratives of the public to be heard. This thesis explores some of the benefits of crowdfunding. As well, data on crowdfunded archaeology projects were collected and analyzed and certain key success metrics were identified. Using these, a basic framework was developed to aid potential archaeological crowd funders. Considerations such as platform, media elements, and language, are an important part of the process. When used strategically, this tool can help unearth much for both the archaeologist and the public.

ACKNOWLEDGEMENTS

Special thanks to my supervisor Dr. Robert W. Park, and all of the faculty here at Waterloo who helped me immeasurably through hard times. Thank you to Dr. Christopher J. Ellis for giving me my first taste of field archaeology!

To my wife Sonia who supported me through everything and wasn't afraid to tell me when I didn't make sense! To my cohort for keeping me laughing and thinking. To all of my family and friends who helped me survive this crazy and exciting year.

And especially to my parents, Paul and Laurene, who helped build my sense of wonder and curiosity in the world, who saved pockets full of rocks from the laundry and always patiently listened to the how's and why's, who fostered my love of history and without whom I would never have been able to accomplish all that I have. I dedicate this thesis to them.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Chapter 1

Public Issues in Crowdfunding for Archaeology

1.1 Public Issues in Crowdfunding for Archaeology

The archaeological research boom in Canada began in the 1960s when the availability of public funding, and subsequently university and museum programs, grew across the country (Forbis et al. 2007). Many new funding sources became available at this time, including the Canada Council, the Ontario Heritage Foundation (which was a supporter of student research [Storck 1984]) and eventually the SSHRC (Social Sciences and Humanities Research Council of Canada). The influx of research funding and new archaeologists in Canada resulted in the formation of the Canadian Archaeological Association, and their publication, the *Canadian Journal of Archaeology* (Forbis et al. 2007). This golden era of Canadian archaeological research wouldn't last however, and in the 1990s, government funding of research-oriented fieldwork, including the Ontario Heritage Foundation grants for students, shrank back to early 1960s levels (Forbis et al. 2007). The era of government austerity has helped to expose the need for alternative sources of research funding, and online crowdfunding has emerged as one of those options.

There is little doubt that archaeological work can be expensive to conduct. In the distant past, wealthy donors sponsored research, like Eli Lilly's funding of James B. Griffin's work (Fenn 2000), and in the recent past there was plenty of government funding for academic research; but still out of reach for many people. Crowdfunding has the ability to democratize this process. Not

only does it allow the public to contribute to, and become a part of the archaeological process (Smith 2014), it creates a neutral ground for archaeologists and the public to communicate. A quick check of the CAA website lists many options for funding, but each appear to require affiliation with universities (CAA 2016a). Crowdfunding also empowers those outside of academia or Cultural Resource Management (CRM) to fund their own archaeological research. While this is being written the Ontario Archaeological Society is attempting to crowdfund a 'Manual for Public Archaeology in Ontario' to help engage and educate the public (CanadaHelps 2016).

The democratization of funding and access to archaeology is not the only public issue that crowdfunding raises, although it is one of the reasons it initially captured my attention. Archaeology has been misrepresented to the broader non-archaeologist public by mass media for generations (Gero and Root 1996). A recent survey of public opinion in archaeology showed that Canadians were interested in archaeology but that they did not know much about it (Pokotylo 2002). When asked about archaeology, not only were most people in North America not able to define it, but they held many misconceptions about it (Pokotylo 2002; Ramos and Duganne 2000). Even a survey of introductory archaeology students at a Canadian university indicated that they had very little in the way of background knowledge related to archaeology (Pokotylo 2007). Even worse it is "perceived to be of little importance to the public and there is misunderstanding of critical issues, such as the nature of the archaeological record and its value" (Pokotylo 2002). Hogg (2015) determined, during a study of Canadian public school curricula, that future research into how to engage the public would be critical to fostering future interest in

archaeology. So we know what we need to do in terms of engaging the public, and why we need to do it, now we only need more, cost effective ways to do it.

Television has been shown to be where many in the public get a lot of their archaeological knowledge (Pokotylo 2002; Ramos & Duganne 2000). Bonacchi (2014), showed that television can be more inclusive than museums, facilitating archaeological experiences and engagement with learning. A 2012 National Report by English Heritage 'Heritage Counts' (English Heritage 2012) noted that there has been a rise in the importance of digital media, however according to their research, roughly only 2% of the Internet-using public in England had yet participated in any archaeology or heritage related content online. The increasingly widespread use of online platforms encourages archaeologists to use these digital technologies to initiate communication with the public outside of traditional media (Bonacchi 2014). According to Richardson and Almansa-Sánchez (2015), public archaeology appears to be rapidly gaining support and followers. This may be going hand-in-hand with the global growth of the internet and as such, we need to better understand not only how the public uses archaeology on the internet but how we can use the internet to provide the public with the tools to engage with archaeology (Richardson 2013). Through this forum, the public will be able to gain a better understanding and more knowledge about archaeology and the work conducted by archaeologists.

The internet also gives archaeology a great opportunity to help different publics find their own archaeological 'voice' (Richardson 2013), allowing us as professionals to learn what is of importance to the public, from the public. This could be particularly useful to First Nations groups, allowing them to build their own narratives without the usual pressures that accompany traditional academic or government funding routes. Although CRM often employs large numbers

of archaeologists, and is involved in the excavation of countless sites, they often do not provide access to the data they have collected to the public. As the producers of archaeological knowledge on behalf of the public, it is our duty to disseminate that information to the public in an interesting, insightful and accessible way. New technologies like crowdfunding present exciting opportunities for the archaeological community to reach the public, and ensure that research-focused archaeology is being conducted so that information about the past is readily available to them.

In a digital-reliant age, the public has more ways than ever of accessing information, and the use of online media to disseminate archaeological content has become increasingly widespread (Richardson 2013; Welham et al. 2015). University Affairs (2016), wrote that crowdfunding is best suited to projects that have broad popular appeal. All of the recent studies on the perceptions of archaeology in North America indicate that broad popular appeal is not lacking, but education and engagement with the public are. Crowdfunding is still in its infancy and there is plenty of room for growth and exploration related to archaeology. Much of the data that currently exists on crowdfunded ventures is just as applicable for archaeological projects as it is for any other project. However, the data that were collected and analyzed for this thesis are limited due to the small number of archaeological projects that could be identified. To gain a complete understanding of archaeological crowdfunding, there needs to be additional research conducted. Preliminary numbers gathered here show that more archaeology projects are adopting crowdfunding every year and that these projects are becoming more successful. Continued research in this area will allow us to recognize trends and determine their significance with greater accuracy, aiding archaeologists in their funding efforts and creating stable neutral locations for communication and engagement with the public.

Although crowdfunding may help to democratize archaeology, not everyone will benefit equally from these types of funding initiatives monetarily. Students, especially those whose research is not attached to their supervisor, who have trouble funding their research may find crowdfunded money the most useful. While the money raised through a crowdfunding project may not go a long way for a large multidisciplinary project initiated by senior university faculty members, participating in a crowdfunded venture has the potential to reward any user with large, perhaps unquantifiable, secondary benefits. This further extends the long standing commitment towards public engagement and education that has been well integrated into the archaeological discipline.

Archaeology is a discipline conducted for the public, whose data and artifacts are held in trust for the public, a fact codified in the Ontario Heritage Act (Ontario 1990). Archaeology has a unique ability to capture the attention of the public, and a recent survey of the Canadian public indicates that while they are very interested in what archaeology is, they ultimately still have a large amount of misunderstanding about what archaeology actually does (Pokotylo 2002). So perhaps it's even more important now then it was in 1970, as Fritz and Plog perfectly put it, that "unless archaeologists find ways to make their research increasingly relevant to the modern world, the modern world will find itself increasingly capable of getting along without archaeologists" (Fritz & Plog 1970). There is great potential for the archaeological community to leverage the interest in archaeology of online communities (Richardson 2014), but as Smith (2014) points out, it might actually be more difficult persuading professional archaeologists of the virtues of digital engagement, due to concerns over security or ethics, than finding individuals to participate.

1.2 Possible Venue for Publication

The *Canadian Journal of Archaeology* (CJA) would be an excellent venue for a possible publication of the second chapter of this thesis. Crowdfunding in archaeology is so recent a phenomenon that research related to it is scant at best. The use of this model for raising money for archaeological research brings with it a host of larger public issues that archaeology has been trying to grapple with for some time, specifically related to public engagement and education.

The *Canadian Journal of Archaeology* is published by the Canadian Archaeological Association, whose main objectives are directly in line with the goals of this research, and what crowdfunding in archaeology could bring to the discipline:

- To promote the increase and the dissemination of archaeological knowledge in Canada;

- To promote active discourse and cooperation among archaeological societies and agencies and encourage archaeological research and conservation efforts;

- To serve as the national association capable of promoting activities advantageous to archaeology and discouraging activities detrimental to archaeology;

- To publish archaeological literature and;

- To stimulate the interest of the general public in archaeology (CAA 2016b).

The use of crowdfunding will help to promote the increase and dissemination of archaeological knowledge in Canada. It should also help to promote active discourse about archaeology and encourage archaeological research, while stimulating the interest of the general public in archaeology. Although the *Canadian Journal of Archaeology* may not have expressly published papers related to funding like the one intended here, at their conferences they have had a session on heritage and legislation, where they encouraged presenters to consider, among other things,

'heritage funding', and a paper on the use of extant collections becoming more attractive and feasible due to increasing funding restrictions was also presented at one of the conferences (CAA 2014).

Archaeology, I believe, is uniquely suited to take advantage of crowdfunding and its inherent ability to create a space to engage and interact with the general public. We are also at a unique moment to study how crowdfunding works and how it could be applied to our discipline, as it is still in its infancy. Ensuring that the archaeological community knows that this is a model of funding that is available to them, and that it is a good intersection for engagement and communication, may aid researchers to achieve their goals. As a national archaeological journal, CJA could help spread awareness of this model to the largest number of archaeologists in Canada. Since the CJA, or the CAA more generally, arose from the funding boom earlier this century, it seems only fitting that a potential solution to this recent downturn appear within its pages.

Chapter 2
Digging Online:
Crowdfunding for Archaeology

2.1   Introduction

Archaeology has always been an expensive activity. In the past some excavations were self-

funded by wealthy amateurs; later, patrons such as Lord Carnarvon sponsored the excavations of

professional archaeologists like Howard Carter and Eli Lilly's funding of James B. Griffin's

work as mentioned earlier. Recently, a great deal of archaeological work has been developer-

sponsored cultural resource management (CRM) (Aitchison 2000). Outside of CRM archaeology

however, fundraising is essential to running successful archaeological projects (Piscitelli 2013).

We are now entering a new era in the funding of archaeology. While the archaeological work

conducted in the field may remain rooted in its traditions, the world is moving into an age

defined by the internet.

Traditional academic methods of securing money for research through granting agencies like the

SSHRC (Social Sciences and Humanities Research Council) can provide considerable funding to

successful applicants. Competition statistics collected from SSHRC's website showed that only

eight out of 37 (21.6%) Insight Grant applications (for research excellence in humanities and

social sciences) succeeded during the 2014-2015 season, resulting in 29 research projects failing

to secure funding. The average success rate for Insight Grants for archaeological projects

between 2012 and 2016, was 23%. Almost one in four Insight Grant applicants obtain funding

(Figure 1); however, between 2009 and 2015, the average rate of success for archaeology-based

SSHRC Doctoral Awards was only 8.8%. In fact, from 2000-2008 the SSHRC success rate for

doctoral awards was above 13% every year except 2006, while after 2008 the success rate dropped below 9% every year except 2014 (Figure 2). These low success rates, coupled with increased application frequency, illustrate the intensity of competition for grants. Additionally, grant applications often come with constraints, including academic standing requirements and strict deadlines.
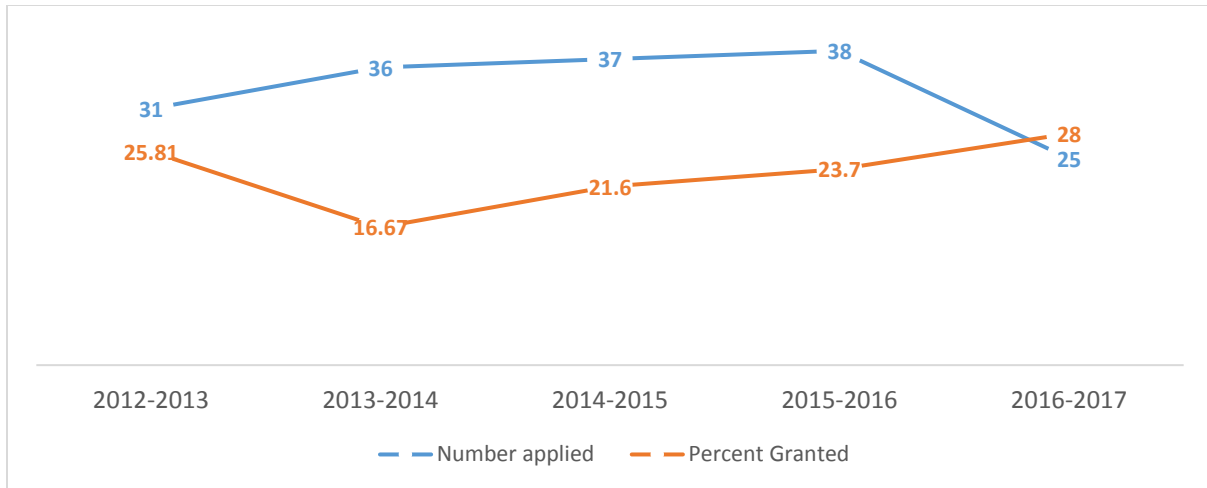
Figure 1: Insight Grant Success Rates Over Time
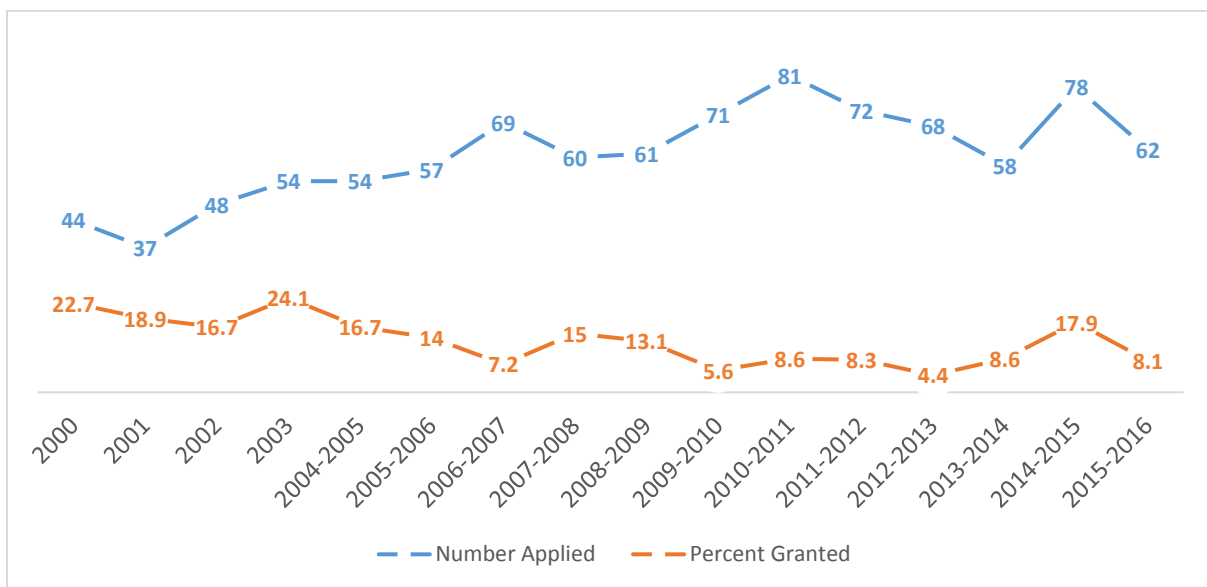
Figure 2: SSHRC Doctoral Awards Success Rates Over Time

In contrast, crowdfunding offers a new, more inclusive and less restrictive fundraising platform. Crowdfunding is a method of soliciting money, in small amounts, from members of the public in an online setting with the express idea of assembling enough capital to complete a project or accomplish a goal (Oxford Dictionary 2016). Compared to the 22% rate of success for Insight Grants, crowdfunding on the website KickStarter.com has an overall success rate of 35.9% (Kickstarter 2016a) and the website Experiment.com has an even higher success rate of 47.5% (Experiment 2016a). While a panel of academic experts judges the allocation of traditional scholarly funding, crowdfunding employs the general public to choose and fund projects.

"Crowdfunding" is a buzzword that has begun to represent the "sharing economy" (where individuals are able to 'borrow' assets owned by someone else) (Investopedia 2014). Crowdfunding platforms, such as Kickstarter and Experiment, are websites that host individual projects, or campaigns. Over 1250 crowdfunding platforms are active on the internet and a report by the National Crowdfunding Association of Canada forecast that in 2015, total global crowdfunding could reach $34.4 billion (NCFA 2015a). In 2012, the Obama administration signed the Jumpstart Our Business Startups Act (JOBS Act), which removed the legal hurdles from the equity based funding model in the United States, making crowdfunding platforms completely legal (Piscitelli 2013), resulting in an explosive rise in their popularity. Star Citizen, a space flight-simulator computer game, has raised over $139,000,000 USD to date (RSI 2016), making it the most successful crowdfunded initiative of all time (Guinness 2015). In 2014, over 170,000 Canadians pledged $27.65 million USD to projects on Kickstarter.com (NCFA 2015b). While these statistics represent a reward in investment terms, as opposed to knowledge

generation, they nevertheless illustrate the impressive potential for reaching the public and raising large sums of money through crowdfunding.

In addition to being a possible source of research funding, crowdfunding also provides an interesting intersection, a neutral ground, where the public and archaeologists can interact. It allows archaeologists to share information and knowledge with the public, while learning what the public actually wants. As a discipline, archaeology has often had a hard time engaging the public in meaningful ways. It has been said that the projects "best suited to crowdfunding are those with broad popular appeal" (University Affairs 2016). Archaeology as a discipline has broad popular appeal (Pokotylo 2002; Ramos & Duganne 2000) which means that it may be ideally suited to take advantage of the benefits that this type of funding has to offer.

This thesis explores the use of crowdfunding as a new model to supplement traditional scholarly funding methods for archaeological research. It examines the current state of crowdfunding, and previous efforts to use it by archaeologists, and attempts to determine if this method may be able to help archaeological projects. Through the examination of previous efforts by archaeologists and other studies conducted on crowdfunding, this thesis builds a basic framework for archaeologists attempting to implement their own crowdfunding initiatives. Archaeological practice has been greatly affected by economic conditions in the last decade (Aitchison 2015). During periods of government austerity, gaining access to money and resources will likely become increasingly difficult, and finding new avenues of funding and ways to showcase the worth of archaeology will be critically important. Crowdfunding may provide us with an opportunity to do both. The initial benefit of crowdfunding, raising money, is of greatest benefit

to archaeologists who are either, students or professors, at the beginning of their careers, are outside the academic circle or only have access to smaller grants. However, crowdfunding can also be applied to larger multidisciplinary projects conducted by established researchers. Here crowdfunding's largest benefit may be the engagement and sharing of information with the public. Also, crowdfunding may provide the additional benefit of increasing the visibility of the campaigning project and its team, while offering them proof of public's interest in their project, which could then be used for securing other traditional grants. Like the rise of CRM, crowdfunding archaeological research may represent the future. Finding ways for the archaeological discipline to integrate this into our toolkit could yield great results.

2.2   Crowdfunding: Background & Context

Crowdfunding websites, or platforms, host campaigns for a fee, typically a percentage of the value pledged. In return pledgers may receive a reward (sometimes referred to as a 'perk') for helping the project achieve its goal. Because the crowdfunding ecosystem has flourished, many specialist platforms serving different and increasingly niche markets have arisen, so picking the right platform for a project is an important step in the crowdfunding process. Indiegogo.com and Kickstarter.com are popular generalist sites, allowing virtually any type of project to be crowdfunded. GoFundMe.com and Generosity.com, also generalist in nature, focus on charitable or non-profit projects. Experiment.com concentrates only on research projects from any discipline, and Commonsites.com deals only with heritage-based projects. DigVentures.com is currently the only archaeology crowdfunding platform with a focus on field work.

On certain platforms, a completed project only receives funding if 100% of its target is met; this is called the "All-or-Nothing" model. On others, project targets do not need to be met and projects may take any funding they raise via crowdfunding, known as the "Keep-it-All" model.

There are also a number of different crowdfunding approaches. The most common is the "donation/reward" model, where the contributor receives a reward based on the size of the donation (NCFA 2015a). Many popular platforms such as Indiegogo.com and Kickstarter.com use this model and most projects discussed here are of this type. However, it is not the only model. The "investment" model allows the contributor to take ownership of a percentage of the project, and any profit that it generates. There are also loan-based models which require repayment of the monies collected by projects, with interest, and numerous hybrid models, which are combinations of the previous three models (NCFA 2015a).

Kickstarter.com, Commonsites.net and Experiment.com are all considered 'All or Nothing' platforms, while GoFundMe.com, Digventures.com and Generosity.com all run 'Keep it All' models. Indiegogo.com offers both options depending on the needs of the project (Indiegogo 2016c). For instance, if a campaigner does not require 100% of the funding to make their project happen, or if they do not believe that they will achieve 100% of what they ask for, then they can select a keep-it-all model to ensure they receive funding.

In terms of cost, sites charge a 'platform fee' to use their website, and often a 'processing fee' to handle money, both of which are a percentage of the total money raised by the campaign. Most of the platforms have virtually the same fees with each charging a combined total of around 8-9% (Digventures 2016a; Experiment 2016a; GoFundMe 2016; Indiegogo 2016b; Kickstarter 2016b). Generosity.com, owned and run by Indiegogo.com, is the only site discussed here that does not charge a platform fee and only charges a 3% money processing fee (Generosity 2016).

Although they have yet to be used for archaeological projects, platforms like LaunchT.com and USEED.org offer "educational crowdfunding systems" (Boynes 2016). These allow institutions to create their own in-house crowdfunding websites. USEED.org, and LaunchT.com do not

actually host projects themselves—instead they help institutions to launch their own platforms, allowing students and faculty to raise funds and awareness. However, hosting on these platforms is restricted to members of the institutions that created them. A number of universities around the world have begun exploring these services including: Pitzer College in California, University of California Los Angeles, Oberlin College, and The University of Western England Bristol (Oberlin 2016; Pitzer 2016; UCLA 2016; UWE Bristol 2016).

In Canada, the University of Alberta has its own crowdfunding platform through USEED.org, and in an effort to support projects and entice users to the platform, the university has covered all associated costs (USEED UAlberta 2016). Unfortunately, Carleton University's 'FutureFunder' and McGill University's 'Seeds of Change' are the only other Canadian institutions, listed on the National Crowdfunding Association of Canada's website directory(NCFA 2016), currently exploring this and actively seeking funding (Carleton 2016, McGill 2016). While none of the university-based platforms have yet to host an archaeology project, they may eventually be even more important for archaeology than the commercial platforms introduced above. They may be advantageous for student based research, and could provide unique potential donor rewards in the form of charitable tax credits. University-based platforms can also draw on the prestige of the academic institution, its media presence, and its faculty and alumni, which can boost the visibility of an archaeological crowdfunding campaign and increase its credibility.

2.3   Published Research on Elements of Crowdfunding Success

Like any tool, archaeologists must first understand crowdfunding in order to successfully use it. Although there is currently little information on the use of crowdfunding in archaeology, research conducted on the metrics of success for crowdfunding in general are relevant in the

implementation of archaeological projects. Some of these metrics include the pitch, audiovisual components, reward or perk categories, social media, credibility and vocabulary.

The pitch is one of the first things that a prospective donor encounters on a crowdfunding page and, like in any sales environment, it is an important part of making the sale. One study concluded that the optimal pitch on a crowdfunding platform was a short positive text (Evers 2012), combined with an audio visual component (Evers 2012; Mollick 2014). Analysis of projects that included videos found that they were 1.89 times more likely to succeed than projects that did not include a video (significant at the 1% level) (Zvilichovsky et al. 2015). However, studies have found that the single heaviest influence on the success of a project was its funding goal (Evers 2012); the higher the target amount, the less likely it was to succeed (Crosetto & Regner 2014). Success in securing pledges was found to be positively affected by the number of reward or perk categories, and more options in terms of price and reward (Zvilichovsky et al. 2015). While these metrics are not specific to archaeology, they are critical in setting the stage to attract prospective donors.

Researchers must ensure that their project is clear and seems credible to the public. This can be achieved in a number of ways. For instance, the credibility of a project was found to generally increase when that project was initiated by a team instead of an individual. This is perfect for archaeology, as projects often employ many people across diverse disciplines. Publishing updates throughout the fundraising campaign helped to sustain credibility (Evers 2012). Interestingly, project owners who have previously funded other projects were found to be almost two times more likely to reach their funding goal, and that they raised more than those who had not previously funded a project (Zvilichovsky et al. 2015). Although the author linked this to project credibility and reciprocity, it was also noted that participating in other people's projects

may have helped them to learn some of the finer points of crowdfunding, allowing them to create or position their project more successfully (Zvilichovsky et al. 2015).

Ensuring that archeological projects relay credible information is clearly important, but individuals may be motivated by several other factors when contributing to a crowdfunding campaign. It has been suggested that many "people don't want to consume passively; they'd rather participate in the development and creation of [something] meaningful to them" (Howe 2009). Some crowd funders are amateur or part-time participants in the area they choose to fund (Bannerman 2013), and they may be drawn to contribute by a desire to belong to a community (Brabham 2008). While contributors may have an interest in archaeology, they may not have the same level of knowledge about archaeology as the campaign creators. The use of vocabulary is therefore an important consideration. A survey of donors to a crowdfunded archaeological project indicated that nearly half of them had no background in archaeology or anything heritage related (Koivisto 2014). When attempting to raise funds in a public realm, archaeologists must endeavour to avoid too much academic language as it can "obscure information fascinating to the general [public]" (Lippert 1997), perhaps deterring them from contributing.

Crowdfunding is inexorably tied to the social. Cultivating public connections can help determine the success of a project (Wheat et al. 2013), and successful campaigns had high levels of both traditional and social media engagement (Verhoeven et al. 2013). One study found that the number of comments, indicating engagement with donors, was the second largest measure of success (Evers 2012) and another found that the number of retweets and mentions per day were cross-correlated to total dollars raised per day (Verhoeven et al. 2013). The number of Facebook 'likes' has also been linked to project success and funding levels (Moisseyev 2013) and the social media network size of the project initiator is also associated with success (Mollick 2014).

16

Koivisto (2014), discussed the Ancient Roman DNA project on RocketHub (another platform), and attributed the authors' success to a popular online blog. Further, Koivisto (2014) attributed his own success at crowdfunding archaeology to Facebook and blog pages made for it. In a survey conducted with donors after the project's completion, he verified that many (33%) heard about it from Facebook, and two people even found the project from a social media (Twitter) that he hadn't used during the project.

Simply having a Facebook page or a Twitter account isn't enough; campaigners need to be active. Remember if we are trying to crowdfund, we will have to make a crowd. An effective tactic is to begin publicity before a campaign starts (Hui et al. 2014). In summary, while each study on crowdfunding uncovered something different, all studies indicated that properly engaging and communicating with the public, in this case potential donors, is important in making a campaign successful.

2.3.2 Sandby Borg: A Case Study for Archaeological Crowdfunding Success

Unveiling the Sandby Borg Massacre, a Swedish archaeological campaign, ran on Kickstarter and successfully completed its funding initiative on Dec 31, 2014, having raised kr465,619 SEK ($52,207.02 USD) from 321 backers. Whether they intended to or not, the creators adhered to many of the success metrics discussed above, which likely contributed to their success. The Sandby team had a video narrated in English, accompanied by music and visuals, giving it the feel and quality of an introduction to a compelling documentary or television series. The Sandby team also did an excellent job communicating and engaging with their potential backers, updating their campaign page a total of 27 times. While many of these updates occurred after the completion of the project, in total they had updated almost twice as often as the next highest updated project. They were also one of only four projects reviewed that included not only a

dedicated project website, but also Facebook and Twitter accounts. Although there is no way to determine how much of an effect these social media connections may have had, 120 (37%) of their project supporters were not located in Sweden. Some of them were likely drawn to the project through social and non-traditional media. They also combined a creative use of language and pledge rewards to entice people to join them for "an experience of a lifetime" in "unveiling the *secrets* of the Sandby Borg Massacre", instead of dry or jargon-filled language that might drive people away. By employing these techniques, the Sandby Borg team created a compelling project that took advantage of everything the platform and the internet has to offer (Kickstarter 2106d).

2.4   Assembling information on crowdfunded archaeology projects

Sandby Borg is just one of a number of attempts to crowdfund archaeological research projects and with the goal of better understanding the potential of crowdfunding for archaeology, I attempted to assemble information on as many projects as possible. Doing so necessitated manual scraping of data from individual pages.

A number of crowd-funding web portals were assessed and divided into categories based on their specialization. Kickstarter.com, Indiegogo.com, Experiment.com and Digventures.com were chosen as they represent a variety of specializations and because they are popular, frequently used, larger websites, they contain more data about past archaeological crowdfunding projects. There were other crowdfunding platforms that initially seemed like they would be ideally suited to this paper because they were largely geared towards the heritage community and archaeology, but were later discarded.

The next step in the data collection process was the search for appropriate individual projects. On each platform the search terms 'archaeology', 'archaeological' and 'excavation' were used to generate a list of finished projects, which made up the sample studied in this research. The intended result was to look at projects attempting to do archaeological research in some way, most often in the form of excavation. The majority of the resulting projects did not represent archaeological research. Many were students seeking tuition, field school fees, or travel grants. Some sought to make videogames, or film documentaries, and there was even the odd pseudoscience project. Any projects asking for funds for an individual's own education or travel, even if related to archaeology, were not included in the dataset. Once a project was determined to be research-oriented, the following data from each individual page were collected: platform, date, video use, social media use, rewards (value, types and number claimed). Other information collected included funding requested, funding received, number of pledgers, currency, title and a link to the project page. For comparability reasons, all currency values were adjusted to USD, based on the world currency value from the end of day close on Oct 28th 2016, using Google's online currency conversion tool. In total, 59 crowdfunded archaeology projects were identified, creating the dataset for the following analysis.

2.5   Analysis of Crowdfunded Archaeology Projects

I began analyzing the data by looking at the rates of success for archaeological projects on the various funding platforms. Due to the fact that there are two distinct and unequal methods of receiving funding (i.e. the keep-it-all and all-or-nothing methods), two different quantitative measures of success were needed. The first measure of success was the number of projects that

reached their funding goal on a given platform. By this criterion, if a project received 100% or more of its funding ask, it was considered a success. Based on this measure, the platform Digventures was the most successful with roughly 86% of projects having received 100% or more of their goal (Table 1). This result may be due to the fact that Digventures projects must first undergo an approval process that likely eliminates most projects with a low chance of succeeding. In addition, once approved, projects can be aided by the Digventures team on various aspects of the fundraising process, including advertising and access to the dedicated Digventures social media (Digventures 2016b). Experiment.com came in second with a 71% success rate followed by Kickstarter at 58% (Table 1). Surprisingly, fundraising giant Indiegogo.com had an overall success rate of only 11%. Nevertheless, the overall success rate of archaeological projects, even with the addition of Indiegogo's relatively low rate, was 52.5%, higher than the rate of success for the SSHRC awards.

Platform	Success Rate (100%+)	Success Rate (got any money)
Indiegogo	11%	100%
Kickstarter	58.33%	58.33%
Digventures	85.71%	100.00%
Experiment	71.43%	71.43%
All platforms	52.54%	84.75%

Table 1: Platform Success Rates

The second measure of success was whether a project received any funding at all. This method was biased towards platforms that offer a keep-it-all approach, like Indiegogo.com and Digventures. Both of these platforms had a 100% success rate based on this criterion, as every project managed to raise some funds. Experiment.com and Kickstarter.com's rate of success

remained unchanged. Using this measure of success, almost 85% of all projects received some funding (Table 1).

2.5.1 Ingredients for Success in Crowdfunded Archaeology Projects

Research conducted by Zvilichovsky et al. (2015) has shown that projects with videos were more likely to succeed. Overall, 55% of the crowdfunded archaeology projects that received 100% or more of their goal were accompanied by a video; however, 64% of unsuccessful projects also had one. I therefore cannot a draw a clear correlation between success and having a video using my dataset. This may be a result of a small dataset or it may reflect the fact that campaigners are actively following platform recommendations to post a project video.

In terms of the use of other media (Facebook, Twitter, blogs etc.), it was found that only 29% of the archaeology projects that reached or surpassed their goal employed other media. This was an unexpected result and upon closer inspection it seems that this number is greatly reduced by the Indiegogo projects, many of which never reach 100% of their goal and by Digventures. Projects run on Digventures get access to the Digventures media networks and therefore do not need to create their own alternate media outlets.

Examination of the average amount asked for by campaigns indicated that successful archaeology crowdfunding campaigns asked for almost exactly $6,000 less than unsuccessful campaigns ($8,769.59 compared with $14,844.26). This finding is in line with results from other studies discussed earlier. It was also suggested that projects that update their pages more often are more likely to succeed. This implication was shown to be true in this sample. Overall, 48% of successful archaeology crowdfunding projects updated their page three or more times during

their campaign. On Experiment.com, this number was 80% and on Indiegogo.com, 100% of projects that achieved their goal updated three or more times. It should also be remembered that some campaign updates may occur after the project has been completed (thanking donors for support etc.), and that this practice would not be picked up by the data analysis.

2.5.2 Reward Analysis

People who donate to crowdfunded projects generally receive a reward matched to the amount that they donate. When we look at the platforms together, there are four important donation ranges that become apparent: $6-19, $20-29, $50-99 and $100-150, each representing close to 20% of the total pledges (Table 2). A popular method for enticing donors to pledge at higher levels was to offer combined rewards at higher cost levels. These packages would often offer one new reward, but include many, if not all of the previous rewards. To simplify this only the reward of the highest perceived value was counted.

While the small and medium value rewards were by far the most purchased, the third most popular reward was a copy of the site report, and the fourth was access to information about the project. To ensure that the pattern in the rewards data wasn't too heavily weighted by the Sandby Borg project, it was reanalyzed two additional times. Similar results were found when pledges from the Sandby Borg project were looked at on their own, and when all projects (minus Sandby Borg) were looked at (Tables 3 and 4). Although this data clearly indicates popular reward categories and price ranges, it does not mean high-end rewards should not be considered. The Sandby Borg project raised 43% of its total funding from only nine, or 3.1% of their total pledges, so having some very high-end or unique 'moonshot' rewards is important.

🟩	Selected the most often across all platforms
🟨	Selected the 2nd most often across all platforms
🟧	Selected the 3rd most often across all platforms
⬜	Most popular reward values
_####_	Top 4 most highly selected

Legend: Tables 2, 3, and 4

Value Order	Reward	Reward Value $1-5	$6-19	$20-29	$30-49	$50-99	$100-150	$151+	Total # Pledged	Average of Total Pledge
Least	Thank You	35	15						50	6.4%
	Product (S)	16	72	92	1	20	13	1	**215**	**27.6%**
	Named	2	4	4		7	8	1	26	3.3%
	Product (M)		32	21	47	97	3	6	**206**	**26.4%**
	Access		21	32	5	14	17	4	**93**	**11.9%**
	Site Report		1	3		15	97	4	**120**	**15.4%**
	Visit Site	2	8			16		12	38	4.9%
	Product (L)						12	4	16	2.1%
	Join the Dig							3	3	0.4%
Highest	!!! Moonshot					3	2	8	13	1.7%
	Totals	55	**153**	**152**	53	**172**	**152**	43	780	100.0%

Table 2: Total Pledges for All Compatible Surveyed Projects

Value Order	Reward	Reward Value $1-5	$6-19	$20-29	$30-49	$50-99	$100-150	$151+	Total # Pledged	Average of Total
Least	Thank You	29							**29**	**10.1%**
	Product (S)		56	49					**105**	**36.5%**
	Named								0	0.0%
	Product (M)					85			**85**	**29.5%**
	Access								0	0.0%
	Site Report						60		**60**	**20.8%**
	Visit Site							2	2	0.7%
	Product (L)							4	4	1.4%
	Join the Dig							3	3	1.0%
Highest	!!! Moonshot								0	0.0%
	Totals	29	**56**	**49**	0	**85**	**60**	9	288	100.0%

Table 3: Total Pledges for Sandby Borg Project

| Value Order	Reward	Reward Value							Total # Pledged	Average of Total Pledge
		$1-5	$6-19	$20-29	$30-49	$50-99	$100-150	$151+		
Least	Thank You	6	15						21	4.2%
	Product (S)	16	16	43	1	20	13	1	**110**	**22.0%**
	Named	2	4	4		7	8	1	26	5.2%
	Product (M)		32	21	47	12	3	6	**121**	**24.2%**
	Access		21	32	5	14	17	4	**93**	**18.6%**
	Site Report		1	3		15	37	4	**60**	**12.0%**
	Visit Site	2	8			16		10	36	7.2%
	Product (L)						12	4	16	3.2%
	Join the Dig							3	3	0.6%
Highest	!!! Moonshot					3	2	8	13	2.6%
	Totals	26	**97**	**103**	53	**87**	**92**	41	499	100.0%

Table 4: Total Pledges for All Compatible Surveyed Projects Minus Sandby

2.5.3 Success

The number of archaeology projects that actually received any funding on the crowdfunding platforms looked at, has been increasing dramatically since 2014. The rate of success for archaeological based projects also appears to be increasing over time. We can see an overall upwards trend (Figure 3), with a dip in 2015 and then a healthy recovery in 2016, despite the fact that the year has not yet ended. When we couple this information with an increase in the number of projects over time (Figure 4), it leads me to be optimistic about the use of these platforms and funding success.
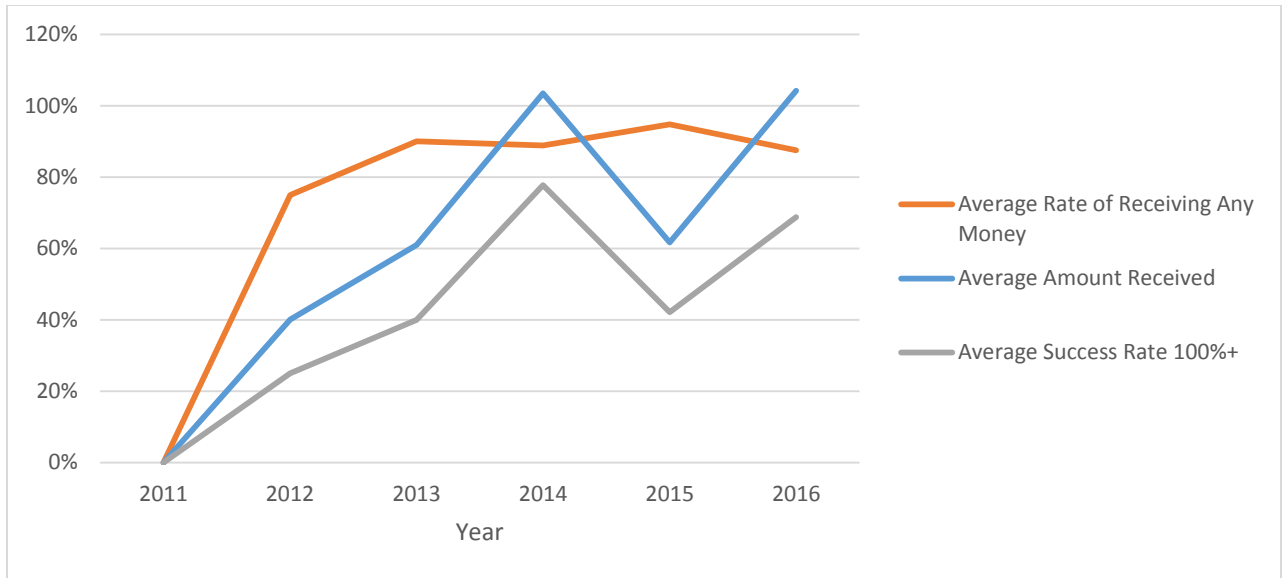
Figure 3: Average Success Rates Over Time
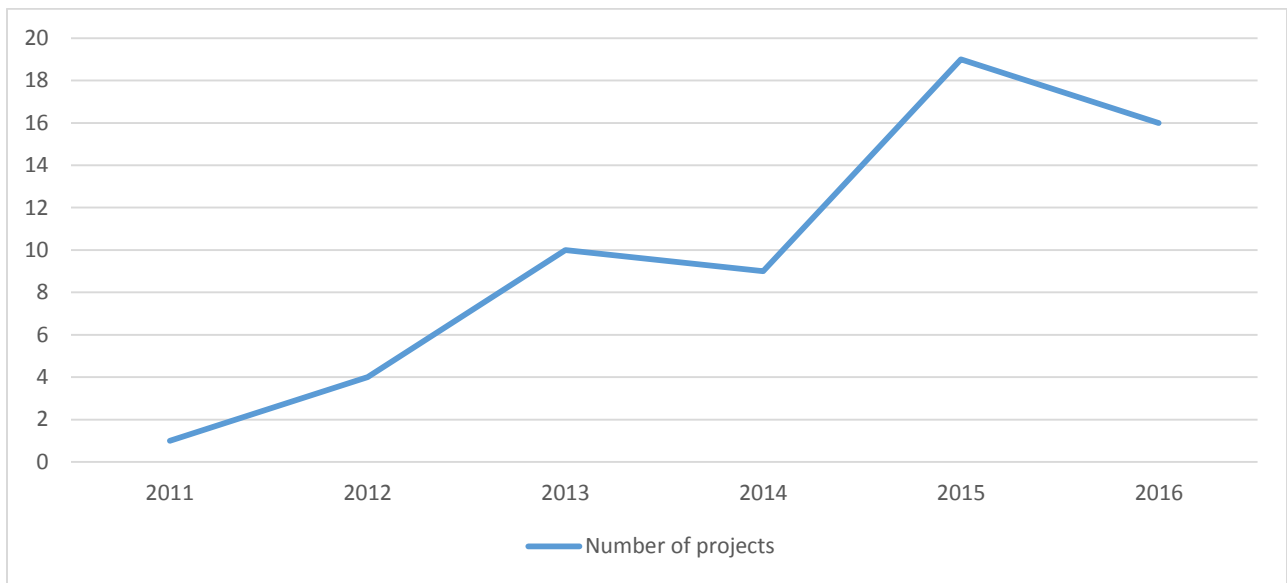
Figure 4: Number of Projects Over Time

The projects hosted by Digventures that reached 100% or more of their funding goal, earned on average $16,054.44, an amount that was significantly higher than other platforms (Table 5). This may be due to a number of factors, many stemming from the selective nature and guidance provided on that platform. Kickstarter.com came in second with its successful projects earning an average of $10,138.06. Successful Experiment.com projects averaged significantly less,

earning only $4,029.80. However, this shortfall is offset by their higher rate of success (Table 5). Lastly, Indiegogo.com campaigns averaged only $3351.74. Indiegogo.com projects however, used a keep-it-all model and when this is taken into consideration, the average amount actually earned by Indiegogo campaigns was $4,364.94 (Table 5).

Platform	Avg. amount Received (100%+)	Avg. Amount Received (all projects)	Success Rate (100%+)	Success Rate (got any money)
Indiegogo	$3,351.74	$4,364.94	11%	100%
Kickstarter	$10,138.06	$10,138.06	58.33%	58.33%
Digventures	$16,054.44	$13,871.34	85.71%	100.00%
Experiment	$4,029.80	$4,029.80	71.43%	71.43%
All Platforms	$10,020.04	$7,767.94	52.54%	84.75%
Avg Funding Ask	$8,769.59	$14,844.26		

Table 5: Average Donations Requested and Received

There have been limitations to studying the interaction between the archaeological community with crowdfunding. Only a small number of archaeological projects have used crowdfunding and the data is often proprietary or private in nature. Because of the limited public data that could be collected and analyzed, the quantitative results could not achieve statistical significance. This study should therefore be considered exploratory, highlighting possible areas for future research. Data on archaeology-related crowdfunding will become more robust the more our discipline uses it. Despite the small dataset, the results were promising and give archeologists reason for optimism about the potential future of crowdfunding as a source of revenue.

2.6   Discussion

Clearly, the funding aspect of crowdfunding would be appealing to some prospective archaeologists and the misconception that crowdfunding constitutes begging for charity, an idea

previously held by retired archaeologist Dr. Volker Arnold, is rapidly disappearing. Volker himself later realized this assumption was inaccurate after reading an article about crowdfunding, and went on to successfully raise money for a dig in Germany (Volker 2015). In fact, DigVentures came into existence because a team of archaeologists no longer wanted to be "reliant on handouts from charities" and believed that archaeologists needed to find new funding methods if they wanted financial security (Knowles 2014).

The secondary benefits of crowdfunding for archaeology may, in some circumstances, outstrip its monetary potential. Crowdfunding creates a unique opportunity to gain public support for a project before the completion of research (Wheat et al. 2013). The public's patronage, even their 'likes', can be used to help substantiate the value the public holds for a project when applying for more formal grants. Limp et al. (2011) wrote it best, saying that: "The usefulness of any technique or method to archaeology, or to any field, is not a simple assessment of the value of that method (or technology) but an assessment of it in the context of archaeology and the benefits that derive from its use."

When I looked at the rewards, I discovered that not only were small or medium trinkets valued but that the archaeology-related rewards like site reports and exclusive access to site updates, a strategy used by DigVentures, were also highly valued. Unfortunately, Digventures had to be excluded from our reward analysis because there was no accessible data about their perk popularity. The Digventures campaigns emphasized archaeological-based rewards like updates, access, site tours, and even allowed donors to participate in the dig, all offered at a relatively low cost. These are strategies that I believe may have contributed a great deal to the success seen on

this platform. This is called 'Social Contract Archaeology' because Digventure teams were entering into a social contract with a wide group of donors and stakeholders through the crowdfunding process (Wilkins & Wilkins 2012).

The tools of new media and the social web give our discipline a unique way to present our own stories, and even engage and collaborate with the public to create new narratives (Morgan & Eve 2012). Participants in a crowdfunding project called Research My World (Verhoeven et al. 2013), reported building new professional relationships that would aid them in obtaining 'proper' grants, and an elevation of their profiles after their crowdfunding attempts (Verhoeven et al. 2013). Crowdfunding has particular value for younger generations, through its freedom to transcend boundaries and the ubiquity of its reach through social media (Lowe 2014), arguably helping to democratize archaeology. It also helps to create a barrier-free space to build new relationships, and promote one's own work in a substantially faster and easier way than traditional methods of dissemination (Kansa & Deblauwe 2011). Using crowdfunding for archaeological projects results in data sharing, which has the potential to increase a scholar's visibility in their field (Harley et al. 2010), and increasing this visibility in the public forum of the internet is of critical importance (Graham 2010). Data sharing online may contribute not only to the spread of knowledge but also data preservation, ensuring that information is located in more than one location at any one given time.

There may also be other benefits to crowdfunding that are yet unrealized. Through crowdfunding, archeologists may be able to more easily collaborate with other researchers, scientists and professionals. It can be used to help fund student research which, as Figure 2

illustrates, is not something easily done. Crowdfunding may also help the public to understand and appreciate the importance of archaeology and the preservation of history. In addition, crowdfunding can be used to bridge the funding gap for those people who may be outside the academic system. Even those without funding woes can glean benefits by using crowdfunding. For them, it will be a springboard for engagement and education, and perhaps quantitative proving ground for the worth of their work. If archaeologists can begin to think critically about how to approach the public and use the tools of mass communication adeptly, perhaps they can improve upon the success of their projects, while learning something from the process itself.

Naturally, there will be challenges to overcome when blending archaeology and crowdfunding. As we've seen above, academic institutions have only begun to explore the world of crowdfunding. Unfortunately, this means that most archaeologists in academia will not have an institution-based platform to call home, and will be forced to search the rest of the world-wide-web for a suitable host. Selecting the correct platform to host their project is a juggling act, and is ultimately dependent on what a researcher hopes to gain. On one hand, it is important to keep in mind how much money a platform will take off the top of a successful campaign. Also, the increased visibility provided by certain platforms may be the difference between success and failure. For younger researchers, money to conduct research may be the most important goal, while tenured professors may get more out of the exposure and community engagement. If available, an institution's own in-house platform should be a researcher's number one choice, as access to the university publishing, campus news and alumni networks may provide more traffic to projects rather than relying heavily on a researcher's personal networks. If this is not an option, my suggestion would be as follows; If possible, apply to be hosted on Digventures as they provide guidance throughout the process. If hosting there falls through, I would recommend

Indiegogo.com because while they are not quite as niche as Experiment.com, or as large as Kickstarter.com, they do offer flexible funding options. Their popularity also means that traffic on their site will be higher than some of the specialist platforms.

Potential drawbacks come with the virtual commercialization of certain projects on such a public stage. It has been suggested that some projects that claim to be opportunities for engagement, are often "not providing any actual learning experiences" (Perry & Beale 2015) and that there has been a lack of attention to these dynamics (Smith 2014). Sayer (2014) has questioned the ethical implications of crowdfunding an archaeological project, and how this might relate to moral issues about who the past belongs to, and the right to charge people to be involved in excavating their own past. Although many of the platforms discussed here have guidelines in place to prevent unethical projects or the misuse of funds, the particular types of ethical issues posed by archeological projects may require deeper analysis. I would suggest that campaign donors are not individually paying to dig on a site (when that is a reward), unlike archaeotourism or a field-school, as much as they are helping to fund the entire project, where a reward for their assistance is an opportunity to experience archaeology. Regardless, it is extremely important that archaeological crowdfunding projects adopt a robust and transparent ethical standpoint from the outset of the campaign. In addition, individuals or teams should be certain that their projects are a good fit for this type of public funding. There must always be an awareness, sensitivity and respect for the materials and cultures they may be interacting with.

Of course crowdfunding archaeology also has the potential to open the door to a host of projects which might tarnish the reputation of or do damage to the archaeological record. This could

easily result from untrained amateurs, pseudoscientists or treasure-hunters posing as legitimate researchers online. Unfortunately, the layperson may not always be able to discern the treasure-hunter from the true archaeologist. It is therefore extremely important that we be as transparent about ethical guidelines as we are about our own credentials and affiliations (to institutions etc.), and specifically mention that our projects meet regulations and consult the appropriate people. Ensuring that we differentiate our modern discipline as ethically responsible knowledge production, from the treasure hunting stereotype of our past (Gero & Root 1996).

A successful, ethically sound project is the result of many variables including project appeal, timing, platform and perhaps even a little luck. However, careful planning, and a strategic approach are undoubtedly critical parts of the process. Like a good trowel, when used correctly, certain strategic approaches may help us find what we're looking for.

2.7   Recommendations

Many crowdfunding platforms have their own framework designed to aid project creators in the construction of a successful campaign. Some of the following advice could be applied to any crowdfunding campaign, but I have tried to compile a framework with archaeological projects in mind.

Considerations

Before beginning a campaign, take the time to seriously reflect on your own goals and consider the ethical issues at stake. As an archaeologist, are there any potential ethical issues that could arise from your project? Are you crowdfunding for the right reasons? Some projects may not be

well suited to the public platform offered by crowdfunding. It may not be appropriate to crowdfund for certain highly culturally sensitive projects, and their locations may need to be kept a secret. Consider the interests and views of all parties involved. Additionally make sure that all government regulations regarding archaeology in the area of the project are met and disclosed in your campaign, they may vary widely depending on the location. If you are connected to an institution, be sure to familiarize yourself with any rules they have regarding crowdfunding and make sure that there is support both from the school and the faculty, and that your campaign is in compliance with the ethical regulations in place (Verhoeven et al. 2013).

2.7.1 Before Beginning a Campaign

Platform

It doesn't matter what you're trying to fund, pick the correct platform for your project. This will mean choosing a funding model that is either 'all or nothing' or 'keep it all'. Make sure that you research the platform you choose so that you understand exactly what working with them will entail (fees, legalities etc.) and how funding will be received at the close of the campaign.

Promotion

Being active on social media, starting dedicated project accounts before the project is launched, dedicating time each week to update these different platforms and engaging with potential donors is important (Verhoeven et al. 2013). During Koivisto's (2014) crowdfunding he found that 69% of respondents shared the campaign, to the benefit of his campaign. So when you do contact your network, enlist them to help you spread the word about the campaign. Additionally, getting public endorsements from outside experts may increase credibility and also give you

access to networks otherwise unavailable (Experiment.com 2016b). Projects that reach 30% of their goal within the first two days are more likely to exceed their funding goal (Indiegogo 2016d); this will give prospective backers confidence in your project. As such, it may be beneficial to identify people that may become financial or promotional supporters, and approach these people personally for support before the campaign starts (Verhoeven et al. 2013).

Scale

Make sure the project is scalable. In other words, make sure that it can function at different levels of funding, or that funding by the crowd represents only one venue of capital. Archaeology is expensive work and crowdfunding can be fickle; there is no guarantee that your project will raise all that you require. This consideration is especially important when flexible funding is used, as you'll be receiving whatever you earn, regardless of your goal. A project that only receives a small portion of the money required could run into ethical or logistical problems as a result.

2.7.2 Building a Campaign

Title

The title is important as it will be the first thing that people read, so make it clear but catchy. You want people to know what your project is about yet curious enough to click on it. The title for the successful Sandby Borg project described above was: Unveiling the Sandby Borg Massacre. This title is informative yet compels us to find out more.

Video and Description

Every planned project should have a script for the video and descriptive text, which should explain your story (Kickstarter 2016c) and be interesting enough to be sharable (Indiegogo 2016d). What got you interested in, or do you find exciting, about archaeology? Your audience may also feel the same way. It should include all the key pieces of information that the viewer or reader might want to ask like:

> Who are you? (If you have published recently or presented at a conference, link these if possible); What are you planning?; When will it happen/what is the schedule?; Where your idea came from?; What is your budget?; Why you are passionate or excited?; How they can help/be a part of it?; Why does their contribution matter?; What's in it for them?

Information we may find mundane, the age of artifacts, or the fact that no one has dug at a particular location before, may be the mysterious hook to catch a donor's attention. It is also important, as discussed, to use layman's terms (Verhoeven et al. 2013) because many funders may be from outside the heritage field (Koivisto 2014). The video should be high quality, short and to the point, roughly two to three minutes in length, with clear, crisp audio (Indiegogo 2016d). Any detail that cannot fit in your video can go into the project's description.

Rewards (Perks)

Make sure that you have appropriate rewards enticing people to contribute. Remember that "you know better than anyone what your community wants" (Kickstarter 2016c) and the people who might pledge to an archaeological project probably have an interest in archaeology. Given this, offer perks and/or rewards that this type of audience would like. Think about what you would

want if you were pledging to such a project. What unique things can you offer to entice your audience?

I would recommend that there be one reward for each of the most collected pledge levels found in the data, as seen in Table 2. Some good options might be site photos, site reports or exclusive access to daily updates (which will double to let donors "share the creative journey"; Kickstarter 2016c). If possible, offer an engaging or unique reward, like a site visit or the option to dig. Do not offer something you cannot follow through with and be clear on all the logistics such rewards would entail. That way, donors are well aware of any additional out-of-pocket expenses and any arrangements they must make themselves (Verhoeven et al. 2013). For some of the more expensive options, instead of offering one big reward, you can offer a combination of smaller rewards. Adding 'stretch' goals/rewards when the campaign reaches a funding goal, and marketing pledges as gifts to others, can be used to keep the momentum of the project going.

Funding

As you would for any grant application, write down all of your possible expenses, even smaller costs like shipping for your rewards, or platform and processing fees. These are now part of the budget for your project.

Set an appropriate target amount and pick an important component (e.g., cost of excavation), and tell donors for what you are specifically raising funds. Most projects that were successful on Experiment.com campaigned for under $5000 (Experiment 2016b). Not only does this corroborate data about lower values being more successful (Crosetto & Regner 2014), but also

data found here. Since all campaigns on Experiment.com are research-based, the results there may be more comparable to archaeological projects. Remember that you can always set a stretch goal later.

According to Kickstarter (Kickstarter 2016c), 30-day long projects have the optimal success rate. Set a strategic deadline. Remember that you can leverage holidays, long weekends and even pay periods by lining them up with your campaign.

Promotion

Remember that you are trying to reach the crowd, not the other way around. Make the most of your own personal or professional networks, and social media to get the word out, and continue doing this during your campaign. Make sure you continue to update pages and engage with people. You may also want to create a press release to make sure national and regional archaeological associations know what you're planning, and see if they'll be willing to post a notice of your project.

Frequently Asked Questions

Include a frequently asked questions (FAQ) section on your campaign page, and update it regularly. This is particularly important for a research-based project where many people may not know much about archaeology and thus contributors may have many questions. Having an FAQ section will reduce the number of personal responses required, while also showing people that you are engaged with the project.

2.8 Future Research & Conclusions

Consider for a moment that in 2015, Canada was the 3rd highest rated crowdfunding country, with 1,988 projects generating a total of $32,996,232 (TheCrowdDataCenter 2016). Or that fifty out of fifty-nine projects studied, raised $388,397 for archaeological research. Crowdfunding represents an important emerging resource for archaeology and archaeologists today. My research illustrates the potential for crowdfunding as a new source of revenue for archeological projects, as well as a unique way to share ideas about archeology with the public.

The exploratory work conducted here shows that some archaeologists have already started to use crowdfunding to raise capital for their projects. Indeed, my preliminary research suggests that the rate at which archaeological crowdfunding projects actually receive funding, from each platform as well as averaged together, is not only higher than some traditional grants but also higher than the crowdfunding industry average.

Crowdfunding has great potential for certain groups of archaeologists. First, it provides the opportunity, especially for the younger members or those at the fringes of our community, to raise research capital. Second, by looking at the number of people who pledged, the amount that they pledge, or how many 'Like', comment on, or shares the project received on social media, we can show evidence of public support for a project. This support could be used to prove a project's worth to traditional granting committees. In fact major funding bodies, like SSHRC, specifically ask applicants if they have matching or other sources of funding, which according to their "Guidelines for Cash and In-Kind Contributions" crowdfunding should fit quite nicely (SSHRC 2014). SSHRC also asks prospective applicants to address their "knowledge mobilization" initiatives beyond academia (SSHRC 2015), and crowdfunding not only shows the public interest but provides a possible means for publicizing research.

Having helped to fund a number of successful projects, at the outset of this project I believed that crowdfunding could represent an alternative method of funding, independent of some of those more traditional methods. However, I have come to view it as much more than simply a method for raising funds. Rather, I have come to see crowdfunding as a valuable resource that our discipline can add to its toolkit. Crowdfunding can be used to raise money, but it also helps us to engage with the public and provides us with a common ground upon which we can communicate and discuss. The reception of a funding project reflects public interest in what we do, which in turn may help garner more funding from granting agencies or help to influence future public policies in heritage sectors. Also, it forces us as archaeologists to think outside our unit and to consider how accessible our projects are and how they are perceived. Crowdfunding may link us to other individuals outside our networks whose thoughts or ideas may not have otherwise occurred to us. In short, crowdfunding offers us a unique opportunity to share, to learn and maybe even make some money so that we can dig in the dirt a little longer.

REFERENCES

Aitchison, K.

2015 Professional archaeology in the UK in 2015. *Cultural Trends*, *24*(1): 11-14.

2000 The funding of professional archaeological practice in England. *Cultural Trends*,

10(39): 1-32.

Bannerman, S.

2013 Crowdfunding culture. *Wi Journal of Mobile Media*, *7*(1). Retrieved 18 March

2016, from http://wi.mobilities.ca/crowdfunding-culture/

Bonacchi, C.

2014 Understanding the public experience of archaeology in the UK and Italy: a call for a

'sociological movement' in Public Archaeology. *European Journal of Post-Classical*

Archaeologies, 4 (2014): 377 - 400

Boynes, W.

2016 Education Crowdfunding Software | White Label Crowdfunding | Launcht.

Launcht.com. Retrieved 2 October 2016, from http://www.launcht.com/launcht-

educational-crowdfunding-packages/

Brabham, D.C.

2008 Moving the crowd at iStockphoto: The composition of the crowd and motivations for participation in a crowdsourcing application, *First Monday*, 13(6). Retrieved on 14 March 2016 from:

http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2159/1969

CAA

2016a Available Funding Sources | Canadian Archaeological Association / Association canadienne d'archéologie. (2016). Canadianarchaeology.com. Retrieved 27 November 2016, from https://canadianarchaeology.com/caa/available-funding-sources

2016b About the CAA | Canadian Archaeological Association / Association canadienne d'archéologie. Canadianarchaeology.com. Retrieved 29 November 2016, from https://canadianarchaeology.com/caa/about/objectives

2014 *CAA/ACA Annual Meeting 2014 – Final Program*. Retrieved 20 March 2016, from http://canadianarchaeology.com/caa/sites/default/files/page/updatedfinalprograme3.pdf

CanadaHelps

2016 ONTARIO ARCHAEOLOGICAL SOCIETY - Manual for Public Archaeology in Ontario Fund - *Canadahelps.org*. Retrieved 5 December 2016, from https://www.canadahelps.org/en/charities/ontario-archaeological-society/update-to-avocational-archaeology-manual/

Carleton

 2016 Explore Current Projects | FutureFunder. Futurefunder.carleton.ca. *Carleton.*

 Retrieved 24 November 2016, from https://futurefunder.carleton.ca/explore-the-

 community/

Crosetto, P., & Regner, T.

 2014 Crowdfunding: Determinants of success and funding dynamics. *Jena Economic*

 Research Papers, 2014-035

DigVentures.

 2016a Launch a Crowdfunded Archaeology Project |. *DigVentures*. Retrieved 24

 November 2016, from http://digventures.com/crowdfunding/apply/

 2016b *Crowdfunding Consultancy, Training & Masterclasses | DigVentures*. Retrieved

 24 November 2016, from http://digventures.com/crowdfunding/training/

English Heritage

 2012 Heritage Counts National Report. Using & Benefiting: Volunteering in the Historic

 Environment. *Hc.historicengland.org.uk*. Retrieved 20 April 2016, from

 http://hc.historicengland.org.uk/content/pub/2012/hc-2012-england.pdf

Evers, M.

 2012 *Main drivers of crowdfunding success: a conceptual framework and empirical*

 analysis. MSc. Dissertation, Erasmus Universiteit, Rotterdam School of Management.

Experiment

    2016a Crowdfunding for Science | Frequently Asked Questions Experiment - Moving

    Science Forward. *Experiment*. Retrieved 24 September 2016, from

    https://experiment.com/faq

    2016b Researcher Guide - Design. Experiment - Moving Science Forward. *Experiment*.

    Retrieved 30 November 2016, from https://experiment.com/guide

Fenn, F.

    2000 The Criticism of the Clovis and Beyond Conference by a Professional

    Archaeologist: A Response by Forrest Fenn. *Ohio Archaeologist* 50(2) 49-51

Forbis, R., Noble, W., LeBlanc, R., Dyck, I., & Morrison, D.

    2007 Archaeology. *The Canadian Encyclopedia*. Retrieved 27 November 2016, from

    http://www.thecanadianencyclopedia.ca/en/article/archaeology/

Fritz, J M and Plog, F T

    1970 The Nature of Archaeological Explanation. *American Antiquity* 35(4): 405–412.

Generosity

    2016 FAQs for Organizers. *Generosity*. Retrieved 24 November 2016, from

    https://support.generosity.com/hc/en-us/articles/212016158-FAQs-for-Organizers

Gero, J. and Root, D.

    1996 Public Presentations and Private Concerns: Archaeology in the Pages of National

    Geographic. *Contemporary Archaeology in Theory*, Edited by Preucel, R.,and Hodder I.

    Blackwell, Oxford. Pp. 531-548.

GoFundMe

    2016 Learn How to Fundraise Online! *Gofundme*. Retrieved 2 October 2016, from

    https://ca.gofundme.com/questions/

Graham, S.

    2010 Why Academic Blogging Matters. *Electricarchaeology.ca*. Retrieved 1 October

    2016, from https://electricarchaeology.ca/2010/03/02/why-academic-blogging-matters/

Guinness Book of Records

    2015 Preview. *Guinness*. Retrieved 28 February 2016, from

    https://www.guinnessworldrecords.com/2015/preview/files/assets/basic-

    html/page17.html

Harley, D., S. K. Acord, S. Earl-Novell, S. Lawrence, and C. Judson King

    2010 Assessing the Future Landscape of Scholarly Communication: An Exploration of

    Faculty Values and Needs in Seven Disciplines. UC Berkeley,Center for Studies in

    Higher Education. Retrieved from http://escholarship.org/uc/cshe_fsc (accessed June 22,

    2016).

Hogg, E. A.

2015 An Analysis of the State of Public Archaeology in Canadian Public School

Curricula. *Canadian Journal of Archaeology*, *39*(2): 328

Howe, J.

2009 *Crowdsourcing: Why the Power of the Crowd Is Driving the Future of Business*.

New York: Random House.

Hui, J. S., Gerber, E. M., & Gergle, D.

2014 Understanding and leveraging social networks for crowdfunding: opportunities and

challenges. In *Proceedings of the 2014 conference on Designing interactive systems* (pp.

677-680). ACM.

Indiegogo

2016b How it works | Indiegogo.com. *Indiegogo.* Retrieved 24 November 2016, from

https://www.indiegogo.com/how-it-works

2016c Details on Fees. Indiegogo Help Center. *Indiegogo.* Retrieved 24 November 2016,

from https://support.indiegogo.com/hc/en-us/articles/206212618

2016d The Benefits of Crowdfunding | The Essential Guide - Indiegogo. *Indiegogo*.

Retrieved 1 December 2016, from https://learn.indiegogo.com/the-essential-guide-to-

crowdfunding/

Investopedia

2014 Sharing Economy. *Investopedia.* Retrieved 24 November 2016, from

http://www.investopedia.com/terms/s/sharing-economy.asp

Kansa, S. W., & Deblauwe, F.

2011 User-generated content in Zooarchaeology: exploring the "middle space" of

scholarly communication". *Archaeology 2.0*, Edited by Kansa, E., Kansa, S., & Watrall,

E. pp. 185-206. Cotsen Institute of Archaeology Press, Los Angeles.

Kickstarter

2016a Kickstarter — Stats. *Kickstarter.com*. Retrieved 21 July 2016, from

https://www.kickstarter.com/help/stats?ref=footer

2016b Fees for Canada — Kickstarter. (2016). *Kickstarter.com*. Retrieved 21 July 2016,

from https://www.kickstarter.com/help/fees

2016c Creator Handbook — Kickstarter. (2016). *Kickstarter.com*. Retrieved 21 July

2016, from https://www.kickstarter.com/help/handbook

2016d Unveiling the Sandby Borg Massacre. *Kickstarter*. Retrieved 29 October 2016,

from https://www.kickstarter.com/projects/sandbyborg/unveiling-the-sandby-borg-

massacre?ref=card

Knowles, K.

2014 Britain must dig deeper to save its archaeology. *The Independent*. Retrieved 16

March 2016, from http://www.independent.co.uk/news/science/archaeology/news/britain-

must-dig-deeper-to-save-its-archaeology-9602435.html

Koivisto, E.

2014 *Crowdfunding: the future of archaeology in Finland?* M.A. dissertation, University of Oulu, Faculty of Humanities, Archaeology. Retrieved 1 December 2015, from http://jultika.oulu.fi/Record/nbnfioulu-201411061971

Lippert, D.

1997 In front of the mirror: Native Americans and academic archaeology. *Native Americans and archaeologists: Stepping stones to common ground.* Edited by Swidler, N., Dongoske, K., Anyon, R., and Downer, A. pp. 120-127. Walnut Creek: AltaMira Press.

Limp, W. F., Kansa, E., & Kansa, S.

2011 Web 2.0 and beyond, or on the Web nobody knows you're an archaeologist. *Archaeology 2.0*, Edited by Kansa, E., Kansa, S., & Watrall, E. pp. 265-280. Cotsen Institute of Archaeology Press, Los Angeles.

Lowe, J.

2014 Building a 'community of archaeologists' and the value of social media. Can You Dig It? Available at http://c-u-d-i.blogspot.co.uk/2014/05/buildingcommunity-of-archaeologists.html (accessed 24 May 2014).

Mcgill

2016 Active Campaigns | Seeds of Change | McGill University. *Mcgill.ca*. Retrieved 24 November 2016, from https://www.mcgill.ca/seedsofchange/open-projects

Moisseyev, A.

2013 Effect of social media on crowdfunding project results. *Digitalcommons.unl.edu*.
Retrieved 7 October 2016, from http://digitalcommons.unl.edu/businessdiss/39/

Mollick, E.

2014 The dynamics of crowdfunding: An exploratory study. *Journal of business
venturing*, 29(1): 1-16.

Morgan, C., & Eve, S.

2012 DIY and digital archaeology: what are you doing to participate? *World
Archaeology*, 44(4): 521-537.

NCFA - National Crowdfunding Association of Canada

2016 Canadian Crowdfunding Directory. *National Crowdfunding Association of Canada*.
Retrieved 1 December 2016, from http://ncfacanada.org/canadian-crowdfunding-
directory/

2015a Hobey, E. 2015 Massolution Report Released: Crowdfunding Market Grows
167%. *National Crowdfunding Association of Canada*. Retrieved 28 February
2016, from:http://ncfacanada.org/2015-massolution-report-released-
crowdfunding-market-grows-167-in-2014-crowdfunding-platforms-raise-16-2-
billion/

2015b National Crowdfunding Association of Canada. 2014 stats are in: Kickstarter by
the Numbers. Retrieved 28 February 2016, from http://ncfacanada.org/2014-stats-are-in-
kickstarter-by-the-numbers/

Oberlin

    2016 Oberlin Crowdfunding Archive. Retrieved 2 October 2016, from

    https://crowdfund.oberlin.edu/campaigns/view/archive

Ontario

    1990 *Ontario Heritage Act.* Retrieved 1 November 2015, from

    http://www.ontario.ca/laws/statute/90o18#BK105

Oxford Dictionary

    2016 Crowdfunding - definition. *Oxforddictionaries.com.*

    https://en.oxforddictionaries.com/definition/us/crowdfunding

Perry, S., & Beale, N.

    2015 The Social Web and Archaeology's Restructuring: Impact, Exploitation,

    Disciplinary Change. *Open Archaeology* 1(1).

Piscitelli M,

    2013 Using social networks to fundraise: Crowdfunding for the archaeologist, *The SAA*

    Archaeological Record, 13(4): 36-39.

Pitzer

    2016 *Pitzer College | Give. Pitzfunder.pitzer.edu.* Retrieved 2 October 2016, from

    https://pitzfunder.pitzer.edu/

Pokotylo, D.

    2007 "Archaeology and the 'Educated Public': A Perspective from the University*." The SAA Archaeological Record,* 7(3): 14-18.

    2002 Public opinion and Canadian archaeological heritage: a national perspective. *Canadian Journal of Archaeology/Journal Canadien d'Archéologie,* 26(2): 88-129.

Ramos, M., & Duganne, D.

    2000 *Exploring public perceptions and attitudes about archaeology.* Inc: Harris Interactive.

Richardson, L.

    2014 The Day of Archaeology: blogging and online archaeological communities. *European Journal of Post-Classical Archaeologies*, 4: 421 – 446

    2013 A Digital Public Archaeology? *Papers from The Institute Of Archaeology*, *23*(1)

Richardson, L. J., & Almansa-Sánchez, J.

    2015 Do you even know what public archaeology is? Trends, theory, practice, ethics. *World Archaeology*, 47(2): 194-211.

RSI

    2016 *Stretch Goals - Roberts Space Industries*. Retrieved 22 December 2016, from https://robertsspaceindustries.com/funding-goals

Sayer, F.

    2014 Politics and the Development of Community Archaeology in the UK. *The Historic Environment: Policy & Practice*, 5(1): 55-73.

SSHRC

    2014 *Guidelines for Cash and In-Kind Contributions*. Retrieved 3 January 2017, from http://www.sshrc-crsh.gc.ca/funding-financement/policies-politiques/cash_inkind-especes_en_nature-eng.aspx

    2015 *Guidelines for Effective Knowledge Mobilization*. Retrieved 3 January 2017, from http://www.sshrc-crsh.gc.ca/funding-financement/policies-politiques/knowledge_mobilisation-mobilisation_des_connaissances-eng.aspx

Smith, M. L.

    2014 Citizen Science in Archaeology. *American Antiquity*, *79*(4): 749-762.

Storck, P. L.

    1984 Research into the Paleo-indian occupations of Ontario: A review. *Ontario Archaeology*, *41*, 3-28.

TheCrowdDataCenter

    2016 Canada: Location Overview. *TheCrowdDataCenter*. Retrieved from http://www.thecrowdfundingcenter.com/data/places?location=CA

UCLA

2016 About UCLA Spark. *Spark.ucla.edu*. Retrieved 2 October 2016, from

https://spark.ucla.edu/about

University Affairs

2016 Academics turn to 'crowdfunding' to get research projects off the ground.

University Affairs. Retrieved 18 March 2016, from

http://www.universityaffairs.ca/news/news-article/academics-turn-to-crowdfunding-to-

get-research-projects-off-the-ground/

UWE Bristol

2016 University of the West of England: All Projects. *Uwe.hubbub.net*. Retrieved 2

October 2016, from https://uwe.hubbub.net/projects/

USEED UAlberta.

2016a What is USEED@UAlberta? *Ualberta.useed.org*. Retrieved 2 October 2016, from

http://ualberta.useed.org/

Verhoeven, D., Palmer, S., Seitzinger, J., & Randall, M.

2013 Research my world: crowdfunding research pilot project evaluation. *Deakin.edu.au*.

Retrieved 1 October 2016, from http://www.deakin.edu.au/research/documents/research-

my-world.pdf

Volker A.

2015 Crowdfunding mit Sciencestarter.de - ein personlicher Erfahrungsbericht mit einem archaologischen Projekt. *Archaologische Informationen 39*, Early View. Retrieved 28 February 2016, from: http://www.dguf.de/fileadmin/AI/ArchInf-EV_Arnold.pdf

Welham, K., Shaw, L., Dover, M., Manley, H., Parker Pearson, M., Pollard, J. & Tilley, C.

2015 Google Under-the-Earth: Seeing Beneath Stonehenge using Google Earth-a Tool for Public Engagement and the Dissemination of Archaeological Data. *Internet Archaeology*, *40*.

Wheat, R. E., Wang, Y., Byrnes, J. E., & Ranganathan, J.

2013 Raising money for scientific research through crowdfunding. *Trends in ecology & evolution*, *28*(2): 71-72.

Wilkins, B. & Wilkins, L.W.

2012 Social Contract Archaeology: a business case for the future. Paper presented at the 18th Annual Meeting of the EAA, Helsinki. Available at: http://www.slideshare.net/DigVentures/social-contract-archaeology-a-business-case-for-the-future

Zvilichovsky, D., Inbar, Y., & Barzilay, O.

2015 *Playing both sides of the market: Success and reciprocity on crowdfunding platforms*. Available at SSRN 2304101.