

Fighting Impostor Syndrome

How Librarians Are Bridging the Gap Between the Humanities and the Sciences

Caitlin Carter, HBA, MLIS

Kate Mercer, HBA, MI, PhD Cand.



Agenda

- Who Are We?
- Impostor Syndrome
- Skills, Strategies & Tools for Transitioning from the Humanities to STEM
- Insight into Collaboration with STEM Faculty
- Challenges, Drawbacks, Benefits

You should have a cue card on your chair. Please write down one thing you find most intimidating about STEM librarianship.





- Pharmacy Liaison
- History Major (WLU 2008)
- MLIS (Western 2010)
- Former hospital librarian
- @librn_caitlin



- Science Liaison
- History Major (MTA)
- MI (UToronto)
- PhD Candidate
- @vivalakt

The meandering history of Kate Mercer



Actually me

Impostor Syndrome



Gonzalez E. Impostor*. Flickr. <https://www.flickr.com/photos/journey-to-the-end-of-the-times/5263202623/>.
Published October 26, 2010. Accessed January 24, 2017.

We say “Impostor Syndrome,” you say:

- Deceiver
- Hoaxer
- Masquerader
- ...

actor charlatan
cheat deceiver faker
fraud hoaxer
imitator
impersonator
inadequate
masquerader
phony pretender
pseudosham

What is Impostor Syndrome?

- First described in the 1970's by psychologists Suzanne Imes, PhD, and Pauline Rose Clance, PhD
- “Impostor phenomenon occurs among high achievers who are unable to internalize and accept their success. They often attribute their accomplishments to luck rather than to ability, and fear that others will eventually unmask them as a fraud.”¹

1. Weir K. Feel like a fraud? American Psychological Association. <http://www.apa.org/gradpsych/2013/11/fraud.aspx>. Published November 2013. Accessed January 5, 2017.

Are You An Impostor?

A close-up photograph of a basket filled with bright yellow lemons. In the center of the basket, a single, dark green avocado is placed among the lemons, acting as an impostor. The avocado has a small, colorful sticker on its side and a black circular sticker with the word "SPOKE" on it. The lemons are piled together, creating a textured, yellow background.

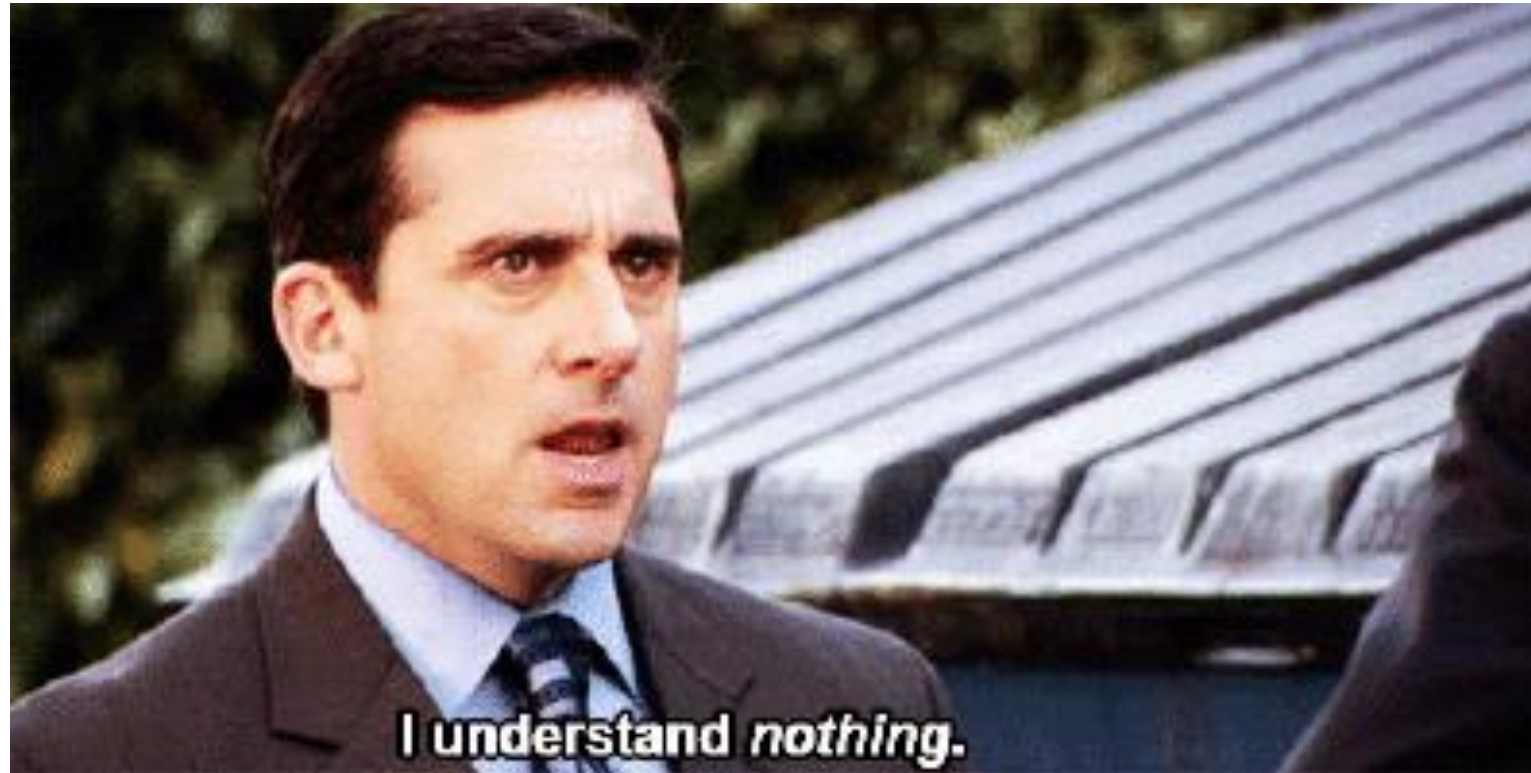
Joyce P. Imposter in aisle 9. Flickr.
<https://www.flickr.com/photos/pauljoyce/9692979115/>. Published
September 7, 2013. Accessed January 24, 2017.

Things I have asked myself over the past week

- Why was I hired?
- Oh god what if I get fired?
- Do they know I am pretending to understand this?
- Why am I being talked to like an expert.
- Am I doing this right? I can't be doing this right...

- Case Studies

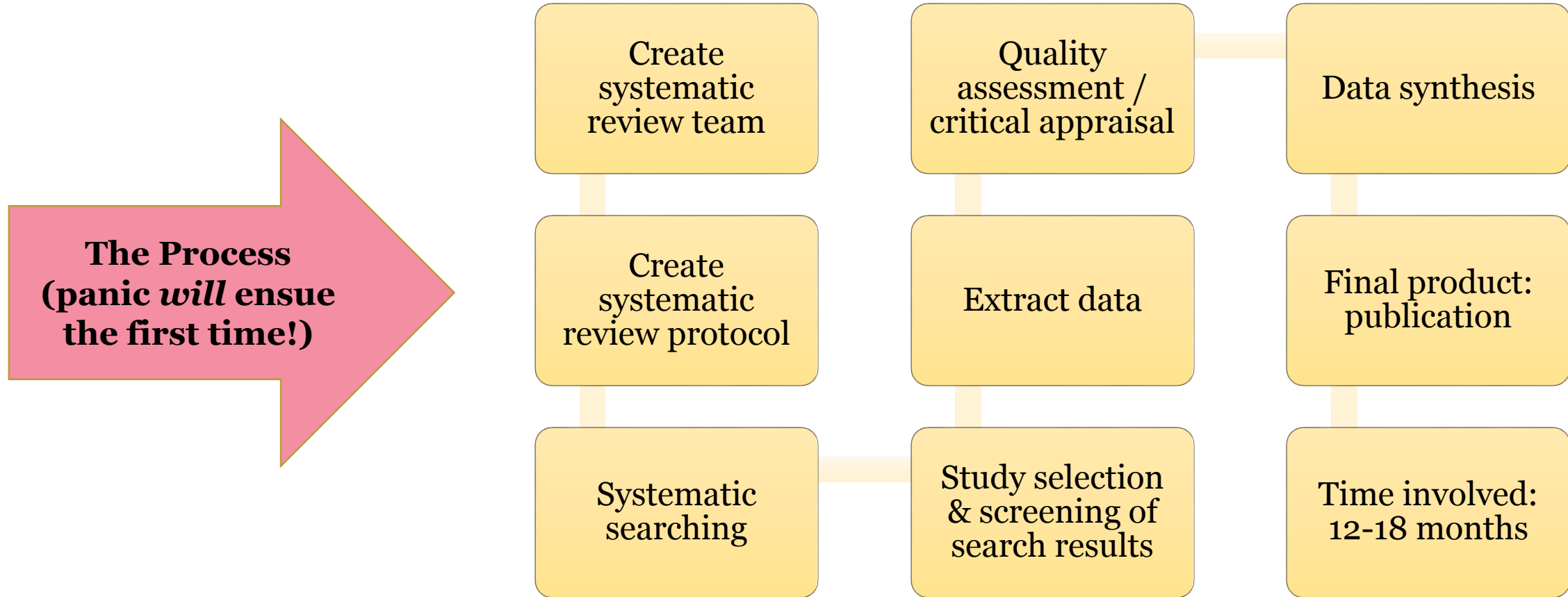
Biomedical Engineering: A Case Study



Finals week. Michael J Scott. <http://www.hercampus.com/school/wisconsin/finals-week-told-office>

First Systematic Review: First of Many!

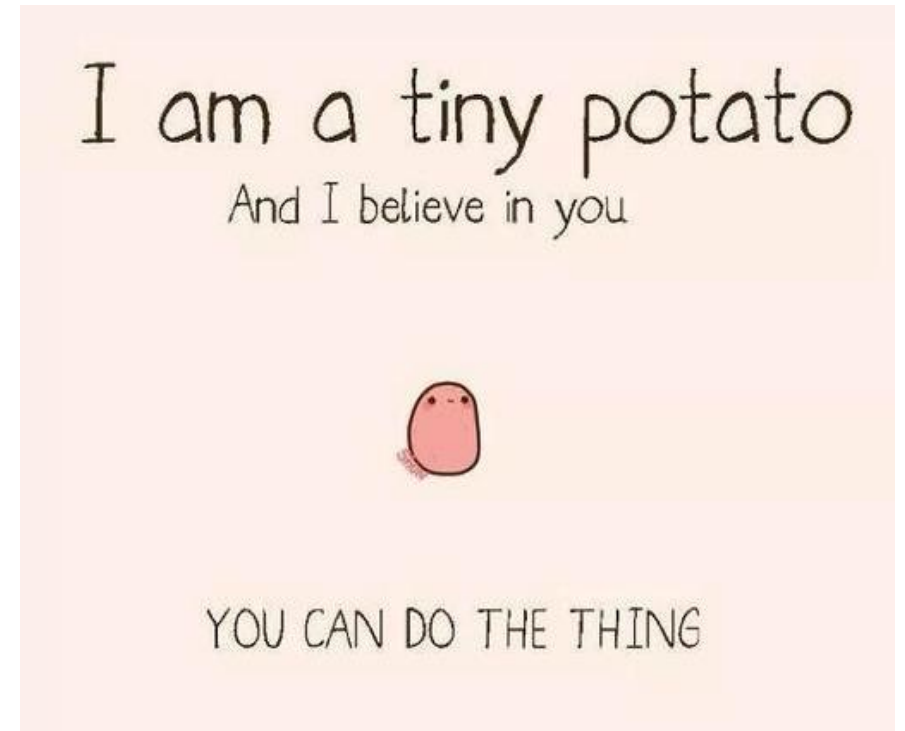
“Systematic reviews seek to collate all evidence that fits pre-specified eligibility criteria in order to address a specific research question.”²



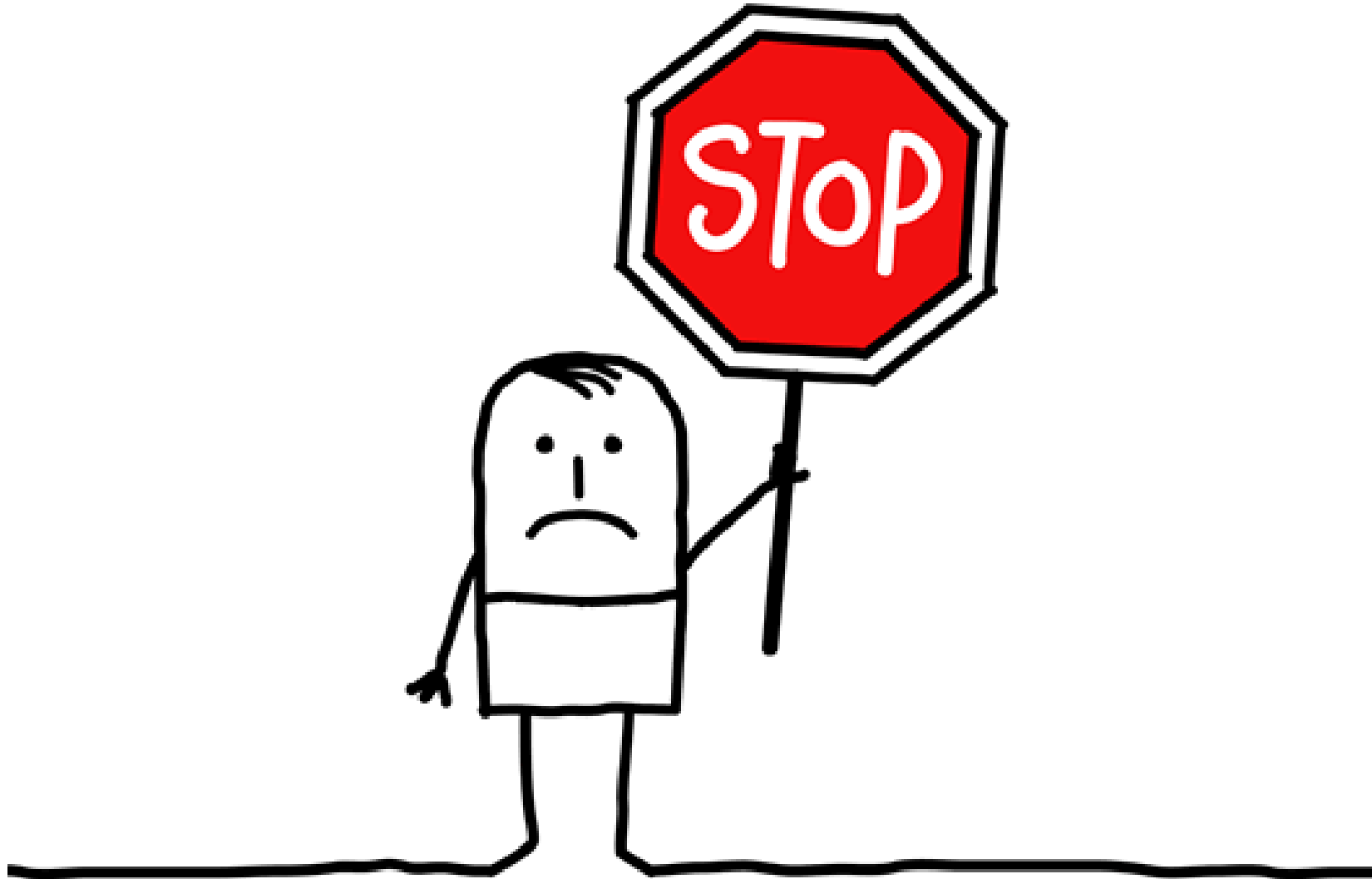
2. Green S, Higgins JPT, Alderson P, Clarke M, Mulrow CD, Oxman AD. Introduction. In: Higgins JPT, Green S, eds. *Cochrane Handbook of Systematic Reviews of Interventions*. Chichester, West Sussex: John Wiley & Sons Ltd;2008:3-9.

Some ways to break the IS cycle

- Find your tribe – ask for help
- Break the silence.
- Focus on the positive
- Forgive yourself
- Change the rules
- Celebrate your success and achievements
- **Realize 70-100% of people in academia feel the same way (or have at some point).**



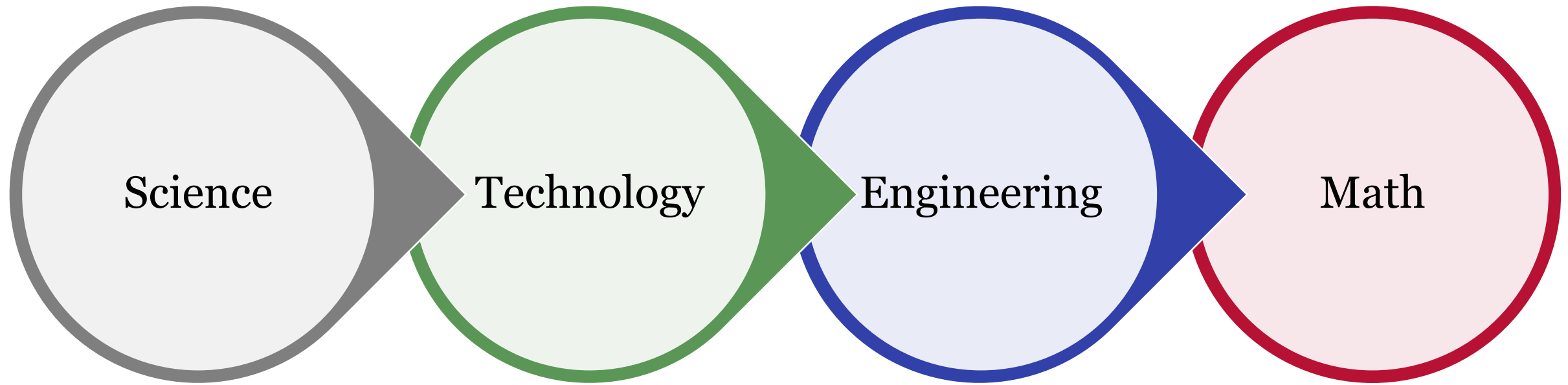
Enough about IS





Skills, Strategies & Tools for Transitioning from the Humanities to STEM

But first, what is STEM?



**What do you think
when we say
“Science”**

**Is it different
when we say
STEM?**



What we think when we hear “science”

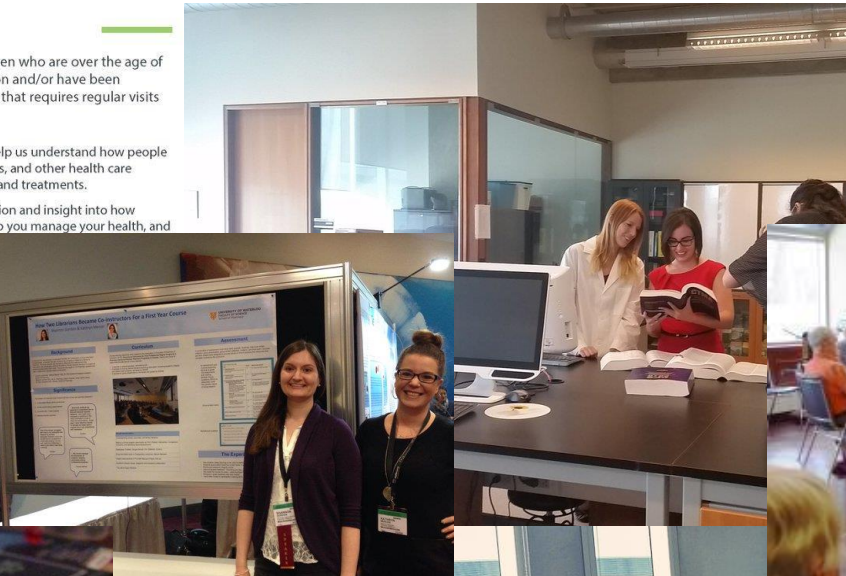
Study Recruitment

UNIVERSITY OF WATERLOO
FACULTY OF SCIENCE
School of Pharmacy

We are recruiting men and women who are over the age of 18, are on at least one medication and/or have been diagnosed with a chronic illness that requires regular visits to a doctor.

- » The purpose of this study is to help us understand how people make decisions with their doctors, and other health care professionals about their health and treatments.
- » We are also looking for your opinion and insight into how electronic health records can help you manage your health, and how to design electronic health management.
- » We will be giving you a brief description of the study, conducting a semi-structured interview, and then we will be giving you a gift card.

Contact **Kate Mercer** at 519-888-4567 x1234 for more info or to participate. This study has been given ethics clearance through a Human Subjects Ethics Committee at Wilfrid Laurier University.



Insights from STEM librarians

I always tell myself that I'm the searching/information expert, they're the content experts, and that there's nothing wrong with being upfront about that and letting them know that I'm willing to learn and want to work with them.

I plan to take some classes but that hasn't happened yet (time). And I know I should meet with researchers informally and learn more about what they do, but I worry that they might find it annoying or a waste of time, so I haven't plucked up the courage yet.

I felt imposter syndrome when entering my position, and still feel it time-to-time. A lot of the pressure I felt was from colleagues who did have backgrounds in STEM disciplines, rather than academics. Two things made me feel better:

- 1. The pool of people who have an Engineering degree and are trying to find work as librarians is very small.**
- 2. By not having a background in this topic, it felt more acceptable for me to admit ignorance, which gave me a great point of entry with many faculty**

Engineering & Liaison Services Librarian

The Florida Institute of Technology Libraries seeks an engineering subject specialist to work with faculty, researchers, and students in several departments such as mechanical and aerospace, electrical and computer engineering, civil and urban engineering, computer science, and biomolecular engineering. The **Engineering & Liaison Services Librarian** will manage the program in the Library, mentor and train other liaisons and perform assessments on the program.

The successful candidate will play a critical role in library initiatives, including scholarly research data management and visualization. [Laboratory](#) including 3D visualization.

Characteristic Duties and Responsibilities

- Serves as liaison to faculty and students by partnering with them to identify and address their information needs.

STEM Librarian (Scholarly Research Support)

The University of Texas at San Antonio Libraries support the research enterprise of the university.

Qualifications & Experience

Required:

- MLS or equivalent from an accredited library school
- Knowledge of print and online resources
- Knowledge of new technologies
- Knowledge of specialized software and/or datasets relevant to the biological sciences, physical sciences or engineering.
- Outstanding oral and written communication skills
- Good interpersonal skills
- Use of standard office equipment including library and business PC applications.

Preferred:

- Six months experience using and teaching information resources in the biological sciences, physical sciences or engineering.
- Degree or coursework in the biological sciences, physical sciences or engineering.
- An understanding and knowledge of current and emerging trends in science and engineering

Duquesne University: Gumberg Library: Information and Reference Services

STEM LIBRARIAN - REPOST

Location: Pittsburgh, Pennsylvania

This full-time non-tenured library faculty position reports to the Director of Information Services. Collaborates with colleagues and disciplinary faculty to develop, promote and provide library instruction and information literacy initiatives. Serves as a departmental liaison and member of the library's STEM-HS team to develop and deliver a range of innovative library services that facilitate the curricular and

CHEMISTRY LIBRARIAN

- Home
- Search Jobs
- Benefits
- Choose Michigan
- Temporary Employment
- Career Development

STEM Librarian Positions

UNIVERSITY OF MARYLAND LIBRARIES POSITION DESCRIPTION FORM

Other _____

Information Services Division (PSD)

How to Apply

A cover letter is required for consideration for this position and should be submitted with your resume.

Head, STEM Libraries

STEM Librarian

REPORTS TO

reports to the Head of the STEM Library and manages a combination of duties and expectations.

the incumbent serves as STEM subject librarian with responsibilities in: Collections and Content, Reference and

Qualifications: ALA Accredited MLS/MLIS degree or equivalent education and experience. Academic background and/or applicable knowledge of STEM (Science, Technology, Engineering and Math) disciplines demonstrated through undergraduate or advanced degree, coursework, work experience. Academic STEM library experience or experience in a special science/engineering library. Proven excellent communication skills, both oral and written. Proven self-starter with demonstrated commitment to innovation, creativity, and excellence. Experience developing, delivering and assessing in person and virtual instructional content that supports undergraduate and graduate curricula. Experience with information services delivery, in-person or virtual, and ability to use and learn new technologies to enhance and deliver information services. An understanding of the collection development process including principles of proactive information resources development and management, licensing and strong vendor relationships. Proven ability to work effectively in a service oriented environment, which values collaboration and collegiality. Experience fostering positive working relationships and building partnerships. Superior customer relationship management skills. Ability to maintain effective working relationships across multiple and diverse organizations, and across levels within organizations from specialist to executive level in a respectful and sensitive manner. Knowledge of current practices and trends, as they relate to STEM librarianship, in areas that include scholarly communication and open access publishing, research impact, information literacy and instruction, information seeking behavior, information services delivery and higher education. Demonstrated ability to identify new service and engagement opportunities that align with Library and Campus Directions. Demonstrated ability to independently, as well as collaboratively, plan, coordinate, implement and assess effective services and collections projects, including managing multiple and simultaneous projects. Excellent organizational and problem-solving skills. Demonstrated ability to analyze data and synthesize recommendations. Ability and aptitude to collaborate in an online, technology-rich environment. Experience with financial and budget information. Understands how research contributes to evidence-based decision-making.

Assets: Familiarity with specialized STEM information resources. Familiarity with current practices in research data management. Knowledge of the academic research process within the STEM disciplines. An understanding of standards and patents and the role they play in both research and industry. Awareness of the engineering design process. Knowledge of subscription business databases. Knowledge of key news resources, both current and historical.

Engineering & Entrepreneurship Librarian, UWaterloo (posted now)

STEM Job Interview Tips

- Half to a full day
- Usually involves a presentation/demonstration
- Review STEM resources (go to a university/college library to use databases as a walk-in)
 - Learn more than just the “names”
- Be aware of research trends in the field you are interviewing for
- Don't just focus on STEM

Hints from a STEM Hiring Manager

Does the candidate have a STEM background? **If yes - great, If no, it isn't a show stopper.**

There are many competencies that are important for an academic or special librarian to have to be successful and we look at these very closely, even if an applicant has a STEM background. These include:

- 1. Communication skills. This may be the most important skill or competency we consider.** The work of a librarian is all about communication and to be successful a librarian must have excellent written and oral communication skills. When we consider candidates, we look at how well they have communicated via their resumes and cover letters, during their interview, in their presentation....
- 2. Collaboration and teamwork.** Much of what we do involves working with others - in the Library, with partners in academic and research support units, with faculty and staff across the University, with consortial partners. Being able to demonstrate skills that support working with others, setting and achieving goals as a group, managing relationships and conflict is important.

4. **Transferable skills.** Do you have skills and competencies from other work experience or volunteer experience? If so, these can be an advantage - for example, do you have project management skills or experience, user experience skills, or assessment skills? If you look at the qualifications for a position and can demonstrate that you have skills or experiences in other settings that show your potential for success, it can help.

5. **Instruction skills and pedagogy.** If a librarian can demonstrate that they have a solid foundation and interest in meeting the qualifications related to information literacy and instruction, they can show that they have the skills to succeed.

6. **Awareness of current trends in Scholarly Communication, information service, higher education, in relevant STEM areas.** It is important to have an understanding of what is happening in the Library profession as well as in higher education in general and specifically in STEM. This can be done with or without a STEM background.

Transferable skills

What do you think are some of the most important transferable skills?



Transferable Skills and Hiring. <http://www.argentus.com/transferrable-skills-and-hiring-a-supply-chain-directors-perspective/>

Transferable skills

Things to think about when you're writing your cover letter and preparing for a STEM librarian interview.

These are skills we pulled from reviewing several STEM librarian job postings.

Transferable Skills
Written & Verbal Communication
Technology
Creative/ Innovative Thinker
Interpersonal Skills
Able to work independently & in a team
Budgeting
Presenting/ Instruction
Knowledge of emerging trends
Customer Service
Project Management

A photograph of a large flock of Canada geese on a green lawn. In the background, there is a white house with a stone chimney and some trees. The geese are scattered across the grass, some standing and some grazing. The text is overlaid on the upper left portion of the image.

Is there a job skill you keep seeing, which you find really intimidating?

You have the job, now what?



Congratulations (what your new boss wants you to know)

1. **Do your research.** Find out what is going on in the departments and subject areas you are supporting - what are the research themes and areas, where are the faculty members publishing, what are they teaching, learn the major information resources in your subject area. This will help you establish your credibility with students and with faculty.
2. **Make connections and build partnerships** - both within the Library and outside the Library. Think about who you can work with to gain the skills and expertise that will support you in your work and reach out. Build a network and find a champion who can help you leverage your success.
3. **Find a mentor** who can help you on your journey. A senior STEM librarian from within or outside your institution can be a valuable resource for you.
4. **Grow as a professional** - Attend meetings or conferences where you can connect with colleagues supporting similar subject areas or who have similar professional interests to share ideas and grow as a professional.

Making the Transition: What to do when you know nothing.

- Keep reading everything
- Admit you know nothing – remember everyone is smarter than you – **for now.**
- Spend time familiarizing yourself with science databases (PubMed is hard)
- Demonstrate effort before you ask questions ex/ I was using PubMed but couldn't figure out...
- Try and get invited to lab meetings
- **Talk to grad students**
- **Ask faculty members about their research**



University of Waterloo Library. Davis Centre Library. Flickr.
<https://www.flickr.com/photos/uwlibrary/14250867784/in/album-72157626836875543/>. Published June 11, 2012. Accessed January 24, 2017.

Insight into Collaboration with STEM Faculty



Important things to communicate pre-collaboration (research or teaching)

- Do your research – find out about them
- Define your expertise
- Be open to learning/trying new things
- Outline research project, role, credit, expectations, time.



University of Waterloo Library. Davis Centre Library. Flickr.
<https://www.flickr.com/photos/uwlibrary/14064735627/in/album-72157626836875543/>. Published January 30, 2014. Accessed January 24, 2017.

What to do if you do not succeed the first time

- Knock on doors and take people out for coffee.
- “Info blasts” or emails don’t always work
- **Do everything in your power to find out how to do someone a favour – even if it’s outside your traditional job description.**
- Don’t put up any barriers to helping, be agreeable.
- Don’t give up.
- Reach out to new faculty as soon as they’re hired.
- Go to department seminars, ask to be invited to department meetings

Embedded Librarianship: what is it?

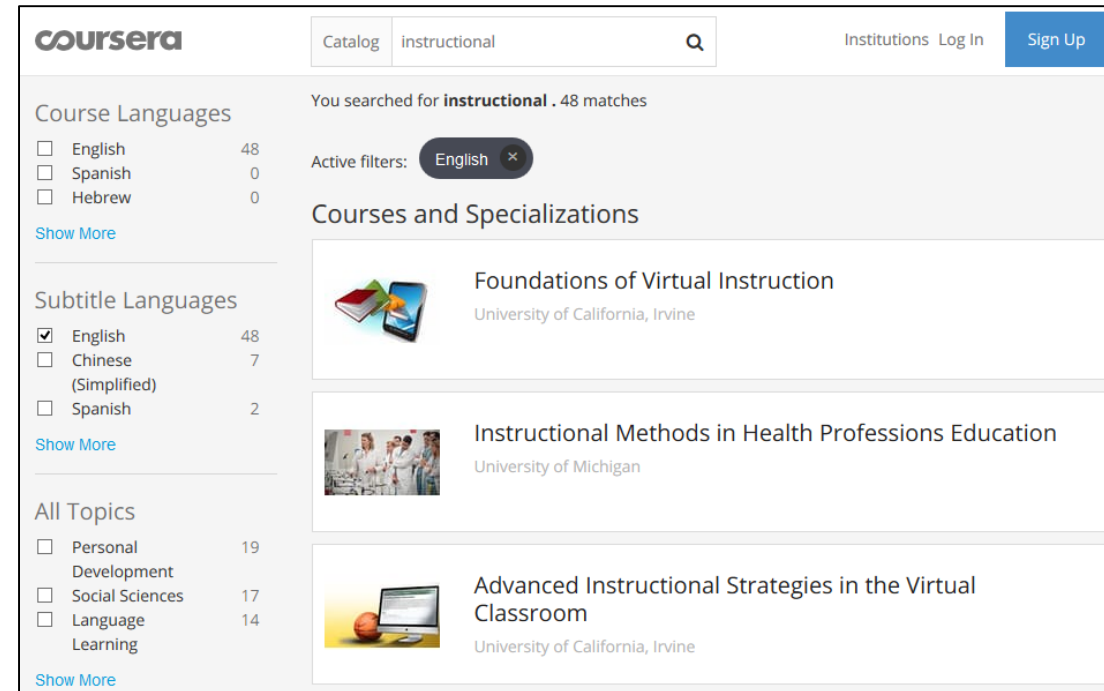
“Embedded librarianship takes a librarian out of the context of the traditional library and places him or her in an “on-site” setting or situation that enables close coordination and collaboration with researchers or teaching faculty.”³

- Caitlin’s office is located at the School of Pharmacy, not in the Library.
- Laura, our Optometry librarian, is located at the School of Optometry.
- Kate just shows up constantly.

3. Carlson J, Kneale R. Embedded librarianship in the research context: navigating new waters. *C & RL News*. 2011;72(3):167-170.

Embedded librarianship: Becoming a resource

- When you first start - say yes. Even when you don't know how, say yes
- Remember: a lot of faculty members begin with no prior instructional experience.
- Take instructional design courses – all universities have them, or even an online free course (MOOC/Coursera/EdX).
- Ask a lot of questions. We keep saying it because it works!
- Talk to the professor: ask for class preferences
- Ask the students what they like
- Find out what the assignments are – not just for this class, but for classes after the one you're instructing.
- Develop workshops to teach – especially in areas outside your current expertise



The screenshot shows the Coursera website interface. At the top, there is a search bar with 'instructional' entered and a search icon. To the right of the search bar are links for 'Catalog', 'Institutions', 'Log In', and a 'Sign Up' button. Below the search bar, it says 'You searched for instructional . 48 matches'. On the left side, there are three filter sections: 'Course Languages' with options for English (48), Spanish (0), and Hebrew (0); 'Subtitle Languages' with options for English (48), Chinese (Simplified) (7), and Spanish (2); and 'All Topics' with options for Personal Development (19), Social Sciences (17), and Language Learning (14). Each filter section has a 'Show More' link. On the right side, under 'Courses and Specializations', there are three course cards: 'Foundations of Virtual Instruction' by the University of California, Irvine; 'Instructional Methods in Health Professions Education' by the University of Michigan; and 'Advanced Instructional Strategies in the Virtual Classroom' by the University of California, Irvine.

Good resource: [The Embedded Librarian Blog](#)

Pharm 155: Introduction to Drug Information Fundamentals

- New core course for UW's School of Pharmacy
- Goal is to teach pharmacy students critical appraisal, research skills & how to understand drug information
- I was approached to develop and instruct the course along with the liaison librarian
- The rationale being **who better to teach about information than a librarian.**
- A full semester course, meant to ground students for the rest of their degree and career.

Think Pair Share



We want you to partner up with the person beside you and pretend that you are in a job interview for a STEM library job. You were just asked about how to use a resource you know nothing about. Between the 2 of you, come up with a quick answer you could provide.

In the next 2 minutes, we will ask you for a few of your ideas.

Challenges

- You could indirectly cause harm
- The divide between Arts & Sciences is real
- Women in STEM – it’s a very real issue.
- “The girls from the library”
- In Engineering, Kate wasn’t a “real person” until she mentioned getting a PhD.
- Caitlin wasn’t a “real person” until she could hold her own in a clinical conversation.

Drawbacks – what you'll lose

- The ability to read for fun
- The ability to watch anything on TV other than TLC/ MTV
- A memory for your discipline that you once loved
- It's easy to feel alone
 - There can be cliques
- It's hard to stay abreast of scientific knowledge – especially when you have to be aware of a field, not a topic.

Benefits 😊

- You will learn something new every day
- You will be challenged every day
- You will never be bored
- Your pile of books you should read will grow exponentially
- There's less competition – it's easy to find your niche
- Great resume builder
- Interesting professional development opportunities
- Clinicians are supportive and empathetic

Interesting professional development

- Medical Terminology online course (George Brown College)
- Health Libraries and Resources course (Mohawk College)
- Systematic Review Workshops: Systematic Review Workshop: The Nuts and Bolts for Librarians (Pittsburgh)
- EdX free courses (Harvard, MIT, UofT)
- National Library of Medicine webinars (PubMed training), IEEE (Institute of Electrical and Electronics Engineers) online video tutorials
- Conferences/Webinars: SLA, ALA, MLA, CHLA, Cochrane Systematic Review webinars

Additional STEM-Related Resources

Books:

- Career Transitions for Librarians: Proven Strategies for Moving to Another Type of Library (2016), edited by Davis Erin Anderson and Raymond Pun
- Success Strategies From Women in STEM: A Portable Memoir (2015), edited by Peggy A. Pritchard and Christine S. Grant
- The Busy Librarians Guide to Information Literacy in Science and Engineering (2012), edited by Katherine O'Clair

Journals:

- JMLA, JCHLA, Evidence-Based Library and Information Practice, Journal of Electronic Resources in Medical Libraries, Health Information & Libraries Journal

Additional STEM-Related Resources

Listservs:

- [STS-L](#) (Science and Technology Discussion List)
- [CANMEDLIB](#) (Canadian health/medical librarians)
- [MEDLIB](#) (American health/medical librarians)

Follow influential people on Twitter/Blogs, for example:

- [@JenGunter, @LabLit, @sciencegoddess, @astrokatey, @nature](#)
- [The Krafty Librarian, Bruce Slutsky: Science/Engineering Librarian, American Mathematical Society Librarian's Toolbox, Gower's Weblog \(Math discussions\)](#)

Special Interest Groups (SIGS):

- [Special Libraries Association \(SLA\) Divisions](#) – Engineering, Physics/Astronomy/Math

Questions? Discussion

