Showing your work

Martin Frigaard

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The information age

"Your work should speak for itself." - unknown

You have entered graduate school in an amazing time. Most people are walking around with more computational power in their pockets than previous generations ever imagined possible. An internet browser now gives you access to nearly all the accumulated knowledge of the human species (and an unreasonable number of cat pictures). As an example to how much has changed and how fast it's happened, consider a 2000 paper in Nature¹ by Steve Lawrence and C. Lee Giles titled, "Accessibility of information on the web." The authors open with the jaw dropping statistic that the internet is "800 million pages, encompassing about 6 terabytes of text data on about 3 million servers." Fast forward to 2016, and Google claims to be aware of 130 trillion pages² across the web.

Put simply, we've never had more access to information than we do right now. And it's unlikely that there will be less available information in the future.

I know how the internet works-why are you telling me this?

Because you need your work to be discoverable **on the internet**. You want collaborators, future employers, other graduate students, and (most importantly) future 'you' to be able to find a catalog of what you've been doing all those late nights in front of your computer.

Isn't that what my thesis/dissertation is for?

Be honest–how many theses/dissertations have you read? Ask your most bibliophilic friends what their favorite thesis is, or what dissertation they think everyone must read? These documents aren't a waste of time–they just serve a different purpose (and it's not to make sure all of your hard work reaches a wide audience).

Good thing I have peer-reviewed publications!

These are also not as useful as you might think. Peer-reviewed articles are usually written for a very niche audience, and rarely in a way that makes the contents interesting beyond only those researchers closest to the subject matter. These papers are also more advertisements or products—they are the end result of a long process in which you have acquired a lot of different skills, and some of the most important skills (i.e. how much of the work you did yourself) aren't even listed. For example, journal articles can't document how you ended up at the particular research question or hypothesis you tested (and why you had to change it).

Neither the thesis/dissertation nor the peer-reviewed paper can document what you did in graduate school: come up with an idea, turn it into a research question, convince people of that idea (or some version of it), collect your data, teach labs/lectures, recruit volunteers, enter your data, manage your

https://www.nature.com/articles/21987

²https://searchengineland.com/googles-search-indexes-hits-130-trillion-pages-documents-263378

The information age

committee member's egos, clean your data, persuade someone to give you constructive criticism in a timely manner, and solve a million other little day-to-day problems.

How we can help

This book will show you how to make your work more discoverable. We'll introduce you to the technology and methods used by scientist who have successfully communicated their work, it's importance, and who they are as people. Commincating your work should be the goal of everyone doing research. If you think about it, the work isn't done when your thesis/dissertation is accepted and you have your degree. And your isn't done when your research has been submitted and accepted to the best conference and high impact journals. Your work isn't even done when someone reads the article or attends your talk. As researchers, our work is done when someone has understood our research and the impact it will have in the world.

Notes

• the scientific journal industry is not looking out for your best interests. They have a clearly unethical business model³, even big universities can't afford their prices⁴ (which means less people reading your work), and they won't compensate⁵ you for your efforts.

 $^{^3} https://www.theguardian.com/comment is free/2011/aug/29/academic-publishers-murdoch-socialistic and the properties of the comment of the$

https://www.theguardian.com/science/2012/apr/24/harvard-university-journal-publishers-prices

⁵https://whyevolutionistrue.wordpress.com/2011/09/01/the-racket-of-academic-publishing/

Conclusion

This book is **done** and ready for *the world to see*, hooray!