

The 30-Day Impact Challenge: the ultimate guide to raising the profile of your research By Stacy Konkiel The text and image contents of this eBook are copyright Impactstory.org and licensed for reuse, remixing, and redistribution under a CC-BY 4.0 license (unless otherwise noted).

Table of Contents

٦	r		1							_		٠.		
ı	n	n	п	ш	r	n	d	п	1.	C'	П	1	וו	n
J	u	u	U	U	Ľ	U	u	u	A.	u	U	u	,	ч

- Day 1: Make a profile on Academia.edu
- Day 2: Make a ResearchGate profile
- Day 3: Create a Google Scholar Profile
- Day 4: Connect with other researchers on Mendeley
- Day 5: Make LinkedIn work for your research
- Day 6: Create an academic website
- Day 7: Establish your expertise with a science blog
- Day 8: Promote your research with Kudos
- Day 9: Find your community on Twitter
- Day 10: Explore using Facebook in a professional context
- Day 11: Social media automation for academics
- Day 12: Make your data discoverable on a data repository
- Day 13: Share your research software on GitHub
- Day 14: Slideshare for conference talks
- Day 15: Publish Open Access for more citations
- Day 16: Post your preprints
- Day 17: Claim your ORCID identifier
- Day 18: Make a video abstract for your research
- Day 19: Establish your expertise with Open Peer Review
- Day 20: Stay up-to-date on your colleague's work
- Day 21: Stay up-to-date on your entire field
- Day 22: Get your research to the press
- Day 23: Make connections and promote your work on listservs
- Day 24: Hustle at conferences
- Day 25: Mentor other scientists
- Day 26: Expand your co-authorship base
- Day 27: Track your scholarly social media and website impacts
- Day 29: Discover when your work is discussed & shared online
- Day 30: Create a comprehensive impact profile at Impactstory

Introduction

In a hugely competitive research landscape, scientists can no longer afford to just publish and hope for the best. To leave a mark, researchers have to take their impact into their own hands.

But where do you start? There are so many ways to share, promote, and discuss your research, especially online. It's tough to know where to begin.

Luckily, we've got your back.

Drawing on years of experience measuring and studying research impact, we've created a list of the top 30 can't-miss, proven effective steps for you to make sure your hard work gets out there, gets attention, and makes a difference—both in your field and with the public.

Over the next 30 days, we're going to work together to *supercharge your* research impact. You'll:

- Upgrade your professional visibility by conquering social media,
- Boost your readership and citations by getting your work online,
- Stay atop your field's latest developments with automated alerting,
- Lock in the key connections with colleagues that'll boost your career, and
- Dazzle evaluators with comprehensive tracking and reporting on your own impacts.

Each chapter's challenge will look like this: we'll describe an important strategy for scholarly and public impact--why it's important, how you can get started, and some resources to help you excel--and then share a homework assignment, where you'll apply the concepts we've covered.

In the chapters that follow, we share a tip per day (though you're welcome to try out multiple steps in a single day, or do these challenges at your leisure). We challenge you to follow along and give each one a try.

If you're up to the challenge, we guarantee that by the end of the month, your research will get a boost in exposure and you'll also have made important connections with other scientists around the world.

Let's get started.

Day 1: Make a profile on Academia.edu

You know all those things you wish your CV was smart enough to do--embed your papers, automatically give you readership statistics, and so on? Academia.edu and ResearchGate (which we'll cover in the next chapter) are two academic social networks that allow you to do these things, and then some.

Perhaps more importantly, they're places where your colleagues are spending a lot of their time. Actively participating on one or both networks will give you ample opportunity to have greater reach with other researchers. And getting your publications and presentations onto these sites will make it easier for others to encounter your work. They do this not only through the social network they help you build, but also by improving the search engine optimization (SEO) of your research, making you much more "googleable".

Both platforms allow you to do the following:

- Create a profile that summarizes your research
- Upload your publications, so others can find them
- Find and follow other researchers, so you can receive automatic updates on their new publications
- Find and read others' publications
- See platform-specific metrics that indicate the readership and reach you have on those sites

In today's challenge, let's dig into the basics of setting up a profile and uploading your work on Academia.edu.

Getting started

Logon to <u>Academia.edu</u>. If you're a firm believer in keeping your professional online presence separate from your personal one, you'll likely want to sign up using your university email address. Otherwise, you can sign up using your Facebook or Google profile.

From here, you'll be directed through the basic signup process.

First up: posting a publication or two. How do you choose what to share? If you're an established researcher, this will be easy: just choose your most "famous" (read: highly cited) paper. If you're a junior researcher or a student, choosing might be tougher. A peer-reviewed paper is always a good bet, as-is a preprint or a presentation that's closely related to your most current topic of research.

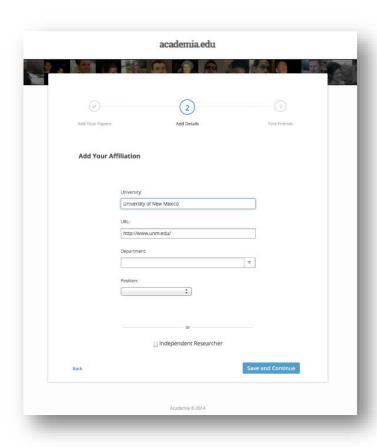
Got a paper in mind? Now comes the not-as-fun-but-incredibly-necessary part: making sure you've got the rights to post it. Most academics don't realize that

they generally sign away their copyright when publishing an article with a traditional publisher. And that means you may not have the rights to post the publisher's version of your article on Academia.edu. (If you negotiated to keep your copyright or published with an authors' rights-respecting journal like *PLOS Biology*, give yourself a pat on the back and skip the following paragraph.)

If you don't have copyright for your paper, all hope is not lost! You likely have the right to post your version of the article (often the unedited, unformatted version). Head over to Sherpa/Romeo and look up the journal you published in. You'll see any and all restrictions that the publisher has placed on how you can share your article.

If you can post your article, upload it to Academia.edu. Click the green "Upload a paper" button and, on your computer, find the publication you want to upload. Click "Open" and watch as Academia.edu begins to upload your paper.

Once it's uploaded, the title of your publication will be automatically extracted. Make any corrections necessary to the title, and then click in the "Find a Research Interest" box below the title. Add some keywords that will help others find your publication. Click save.



Now it's time to add your affiliation and interests to your profile. Adding an affiliation is important because it will add you to a subdomain of Academia.edu built for your university, and that will allow you to more easily find your colleagues. The site will try to guess your affiliation based on your email address or IP address; make any corrections needed and add your department information and title. Click "Save & Continue."

Then, add your research interests on the following page. These are also important; they'll help others find you and your work.

Now let's connect with your colleagues who are already on Academia.edu. You can either connect your Facebook account or an email account to Academia.edu, which will search your contacts and suggest connections.

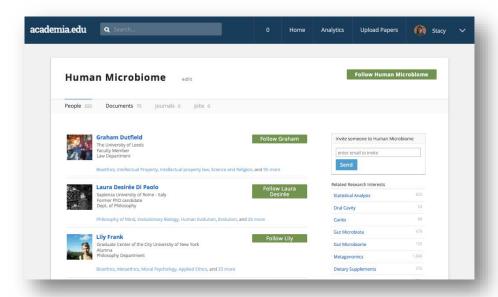
Congrats, you've now got an Academia.edu profile! You can continue to spruce it up by adding more publications, as well as adding a photo of yourself and other research interests and publications, and connecting your Academia profile to other services like Twitter and LinkedIn, if you're already on 'em. (If not, don't worry--we'll cover that soon.)

Homework

Now that you have a profile, set aside half an hour to explore three important uses of Academia.edu:

- Exploring "research interests" in order to discover other researchers and publications;
- Getting more of your most important publications online; and
- Using the <u>Analytics feature</u> to discover who's following you, how often others are reading and downloading your work, and in which countries your work is most popular.

Research interests: click on the research interests in your. For the search results that appear, take some time to explore the profiles of others who share your interest(s) and follow anyone that looks interesting. Click on the Documents tab of the search results and explore relevant papers and presentations; I'm willing to bet you'll find many that you weren't aware of before. You can also use the Academia.edu search to look for research interests outside of the ones you've got listed in your profile, and explore those search results, too.



Upload more papers & presentations: click the "Upload papers" tab at the top right corner of your screen and upload at least two more papers or presentations that you think are worthy of attention. Remember to abide by any copyright restrictions that might exist, and also be sure to add as much descriptive information as possible, adding the complete title, co-authors, and research interests for your paper, all of which will make it easier for others to find.

Analytics: click the "Analytics" tab at the top of your screen and poke around a bit. Because you just created your profile, it's possible you won't yet have any metrics. But in as little as a few days, you'll begin to see download and page view statistics for your profile and your publications, along with other interesting information like maps. All of this data can help you better understand the use your work is getting from other researchers!

So--you've claimed your professional presence on one of academia's biggest social networks, and learned how to use it to find other researchers and publications. More importantly, you've optimized your profile so others can find you and your research much more easily.

Congrats! Day 1 Challenge: achievement unlocked!

See you tomorrow for our Day 2 challenge: mastering ResearchGate!

Day 2: Make a ResearchGate profile

Yesterday, <u>you used Academia.edu</u> to make new connections, find new readers for your work, and track how often your work is being read.

Today, we'll help you master the other major player in the scholarly social network space, ResearchGate. ResearchGate claims 5 million scientists as users, and it will help you connect with many researchers who aren't on Academia.edu (especially those outside North America). It can also help you understand your readers through platform-specific metrics, and confirm your status as a helpful expert in your field with their "Q&A" feature.

Given ResearchGate's similarity to Academia.edu, I won't rehash the basics of setting up a profile and getting your publications online. Go ahead and sign up, setup your account (remember to add detailed affiliation information and a photo), and add a publication or two.

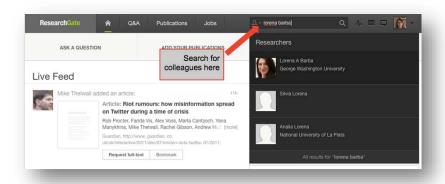
Got your basic profile up and running? Great! Let's drill down into those three unique features of ResearchGate that you're going to explore for your Day 2 Challenge.

Find other researchers & publications

Finding other researchers and publications on ResearchGate works a bit differently than on Academia.edu. Rather than allow you to specify "research interests" and find other researchers that way, ResearchGate automatically creates a network for you based on who you've cited, who you follow and what discipline you selected when setting up your profile.

So, key to creating a robust network is uploading papers with citations to be text-mined, and searching for and following other researchers in your field.

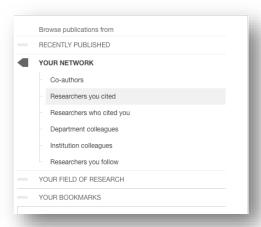
Searching for other researchers in your field is easy: use the search bar at the top of the screen and type in your colleague's name. If they're on the site, they'll appear in the dynamic search results, as we see below for Lorena Barba:



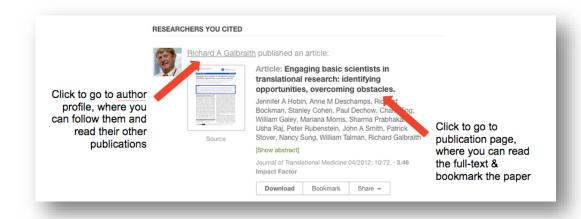
Click on your colleague's name in the search results to be taken to their profile, where you can explore their publications, co-authors, and so on, and also follow them to receive updates.

ResearchGate also text-mines the publications you've uploaded to find out who you've cited. Using that information, they add both researchers you've cited and those who have cited you to your network. Your network also includes colleagues from your department and institution.

To explore your network, click the "Publications" tab at the top of your screen to begin exploring the publications that are in your network. You can browse the most recent publications in your area of interest, your network, and so on, using the navigation bar seen here:



If you find an interesting publication, you can click the **paper title** to read the paper or click on the **author's name** to be taken to their profile. And on the author's profile, you can explore their other publications or choose to follow them, making adding a new colleague to your network a snap.



ResearchGate Score & Stats

If you're into metrics, the ResearchGate score and stats offer lots to explore. The **ResearchGate score** is an indicator of your popularity and engagement on the site: the more publications and followers you have, plus the more questions you ask and answer, all add up to your score. Check out Christoph Lutz's ResearchGate score:



ResearchGate also helpfully provides a percentile (seen above on the right-hand side), so you know how a score stacks up against other users on the site. The score isn't normalized by field, though, so beware that using the score to compare yourself to others isn't recommended.

Some other downsides to be aware of: ResearchGate scores don't take into account whether <u>you're first author on a paper</u>, they <u>weigh site participation much more highly than other (more important) indicators of your scientific prowess</u>, and <u>don't reflect the reality of who's a high-impact scientist in many fields</u>. So, caveat emptor.

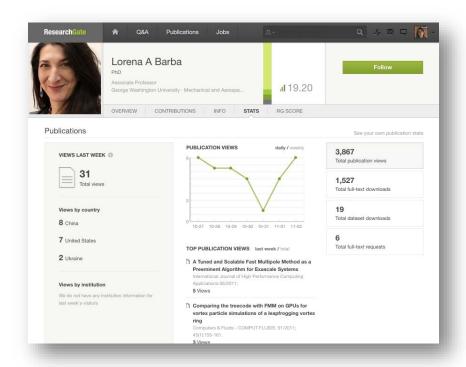
All that said, ResearchGate scores are fun to play around with and explore. Just be sure not to take them too seriously.

The **ResearchGate stats** are also illuminating: they tell you how often your publications have been viewed and cited on ResearchGate (recently and over time), what your top publications are, and the popularity of your profile and any questions you may have asked on the site's Q&A section.

On your profile page, you'll see a summary of your stats:



If you click on those stats, you'll be taken to your stats page, which breaks down all of your metrics with simple visualizations:



A caveat: like Academia.edu stats, ResearchGate stats are only for content hosted on ResearchGate, so it can't tell you much about readership or citations of your work that's hosted on other platforms. And since it's likely that your entire field isn't active on ResearchGate that means ResearchGate stats aren't representative of your full impact.

Now that we've made some passive connections by following other researchers, let's build some relationships by contributing to the **Q&A** section of the site.

On the Q&A section, anyone can pose a question, and if it's related to your area of expertise, ResearchGate will give you the opportunity to answer. We'll talk more about the benefits of participating in the Q&A section of the site in the coming days, but basically it's a good opportunity to help other researchers and get your name out there.

Click on "Q&A" at the top of your screen and explore the various questions that have been posed in your discipline in recent weeks. You can also search for other topics, and pose questions yourself.

Two more cool ResearchGate features worth mentioning: they mint DOIs, meaning that if you need a permanent identifier for an unpublished work, you can get one for free (though keep in mind that their DOIs might be less stable over time than DOIs issued by a CLOCKSSS-backed repository like Figshare). And you can also request Open Reviews of your work, which allows anyone on ResearchGate who's in your area of expertise to give you feedback--a useful mechanism for inviting others to read your paper. It's a feature that hasn't seen much uptake, but is full of possibilities in terms of publicizing your work.

Limitations

Several readers have pointed out that Academia.edu and ResearchGate are information silos--you put information and effort into the site, and can't easily extract and reuse it later. And they're absolutely correct. That's a big downside of these services and a great reason to check out open alternatives like PeerLibrary, ORCID, and Impactstory (more on the latter two services in the days to come).

Some other drawbacks to both Academia.edu and ResearchGate: they're both for-profit, venture capital funded platforms, meaning that their responsibility isn't to academics but to investors. And sure, they're both free, which seems like an advantage until you remember that it means that you are the product, not the customer.

One solution to these drawbacks is to limit the amount of time you spend adding new content to your profiles on these sites, and instead use them as a kind of "landing page" that can simply help others find you and your three or four most important publications. Even if you don't have all your publications on either site, their social networking features are still useful to make connections and increase readership for your most important work.

In the coming days, we'll cover other web services that offer auto-updates and data portability, so you don't end up suffering from Profile Fatigue.

Homework

Set up your ResearchGate profile and add at least three publications you think deserve attention. Next, search for at least 5 colleagues or well-known researchers in your field and follow each of them. Once you've established a network, take 10 minutes to explore the "Publications" tab of ResearchGate, browsing publications that have been recently published in your network.

In the coming days, take another 10 minutes to explore your ResearchGate score and stats. Are there any metrics that surprise you, in terms of what's getting a lot of readers? How might you incorporate this information into your professional life outside of ResearchGate: would you put it on your CV or website, into an annual review or grant application in order to showcase your "broader impacts"? It's ok if you say "no" to these ideas--the point is to get you thinking about what these metrics mean, and how you might use them professionally.

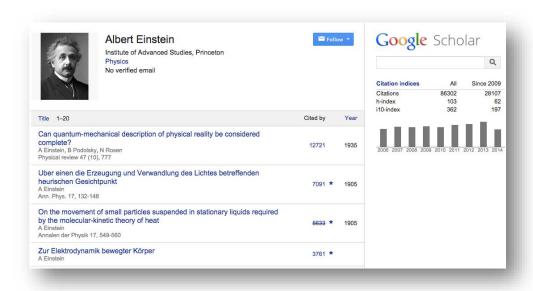
As for the Q&A section of Research Gate--we'll cover that in the coming days. Stay tuned!

Now you've got connections on two of academia's biggest social networks, and you've increased potential exposure for your publications, to boot. You've also got two new sources of metrics that'll show how often you're read and cited.

Are you ready for Day 3? We're going to cover Google Scholar Profiles--a great tool for finding citations, upping your "googleability" even further, and staying on top of new publications in your field.

Day 3: Create a Google Scholar Profile

We've covered two of academia's most popular social networks for the so far. Let's now dig into the research platform that's <u>most often used</u> by researchers: **Google Scholar**.



Google Scholar is a popular way to showcase your papers and the citations they've received. Google Scholar also calculates a platform-dependent h-index, which many researchers love to track (for better or <u>for worse</u>).

In today's challenge, we're going to get you onto Google Scholar, so you can up your scholarly SEO (aka "googleability"), more easily share your publications with new readers, and discover new citations to your work.

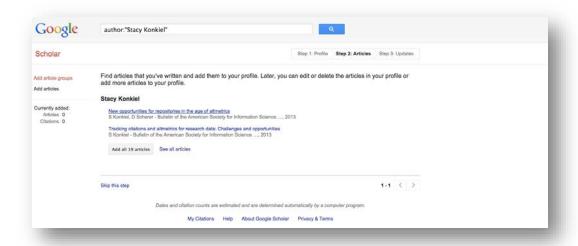
Step 1: Create your basic profile

Log on to <u>scholar.google.com</u> and click the "My Citations" link at the top of the page to get your account setup started.

On the first screen, add your affiliation information and university email address, so Google Scholar can confirm your account. Add keywords that are relevant to your research interests, so others can find you when browsing a subject area. Provide a link to your university homepage, if you have one.

Click "Next Step," and--that's it! Your basic profile is done. Now, let's add some publications to it.

Step 2: Add publications

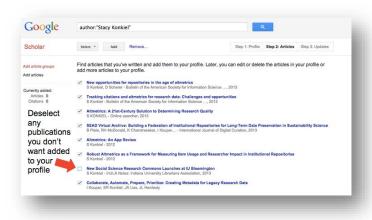


Google has likely already been indexing your work for some time now as part of their mission as a scholarly search engine. So, this step is pretty easy, compared to what it takes to get your work on to Academia.edu and ResearchGate.

Google Scholar will provide you with a list of publications they think belong to you. You'll need to read through the list of publications that it suggests as yours and select which ones you want to add to your profile.

Beware--if you have a common name, it's likely there's some publications in this list that don't belong to you. And there's also possibly content that you don't want on your profile because it's not a scholarly article, or is not representative of your current research path, and so on.

Read through the publications list and deselect any that you do not want to add to your profile (like the below newsletter item that Google Scholar thinks is a scholarly article). Then click the grey "Add" button at the top of your profile.

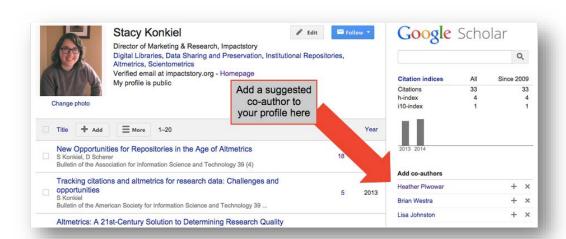


Next, confirm you want Google to automatically add new publications to your profile in the future. If you've got a very common name, note that this might add publications you didn't author to your profile. But if you're a prolific author, it can be worth it for the time it saves you approving new articles every month.

Your profile is now almost complete! Two more steps: add a photo by clicking the "Change Photo" link on your profile homepage, and set your private profile to "Public."

Step 3: Make your profile public

Your profile is private if you've just created it. Change your profile visibility by clicking "Edit" next to "My profile is private" and then selecting "My profile is public" in the drop-down box.



Bonus: Add co-authors

While your profile is technically complete, you'll want to take advantage of Google Scholar's built-in co-authorship network. Adding co-authors is a good way to let others know you're now on Google Scholar, and will be useful later on in the Challenge, when we set up automatic alerts that can help you stay on top of new research in your field.

To add a suggested co-author, find the "Add Co-authors" section on the top right-hand section of your profile, and then click the plus-sign next to each co-author you want to add.

That's it! Now you've got a Google Scholar profile that helps you track when your work has been cited both in the peer-reviewed literature and, and is yet another scholarly landing page that'll connect others with your publications. The best part? Google Scholar's pretty good at automatically adding new stuff to your profile, meaning you won't have to do a lot of work to keep it up.

Limitations

Dirty data in the form of incorrect publications isn't the only limitation of Google Scholar you should be aware of. The <u>quality of Google Scholar citations has also been questioned</u>, because they're different from what scholars have traditionally considered to be a citation worth counting: a citation in the peer-reviewed literature.

Google Scholar counts citations from pretty much anywhere they can find them. That means their citation count often includes citations from online undergraduate papers, slides, white papers and similar sources. Because of this, Google scholar citation counts are <u>much higher than those</u> from competitors like <u>Scopus and Web of Science</u>.

That can be a good thing. But you can also argue it's <u>"inflating" citation</u> counts unfairly. It also makes Google Scholar's citation counts quite susceptible to gaming techniques like <u>using fake publications to fraudulently raise the numbers</u>. We've not heard many evaluators complaining about these issues so far, but it's good to be aware of.

Google Scholar also shares a limitation with <u>ResearchGate and Academia.edu</u>: it's <u>somewhat of an information silo</u>. You cannot export your citation data, meaning that even if you were to amass very impressive citation statistics on the platform, the only way to get them onto your website, CV, or an annual report is to *copy and paste them*--way too much tedium for most scientists to endure. Their siloed approach to platform building definitely contributes to researchers' <u>profile fatigue</u>.

Its final major limitation? There's no telling if Google Scholar will be around tomorrow. Remember Google Reader? Google has a history of killing beloved products when the bottom line is in question. It's not exaggerating to say that Google Scholar Profiles could literally go away at any moment.

That said, the benefits of the platform outweigh the downsides for many. And we're going to give you a way to beat part of the "information silo" problem in today's homework.

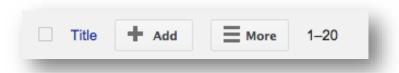
Homework

Google Scholar can only automate so much. To fully complete your Google Scholar profile, let's manually add any missing articles. And let's also teach you how to export your publication information from Google Scholar, because you'll want to reuse it on other platforms.

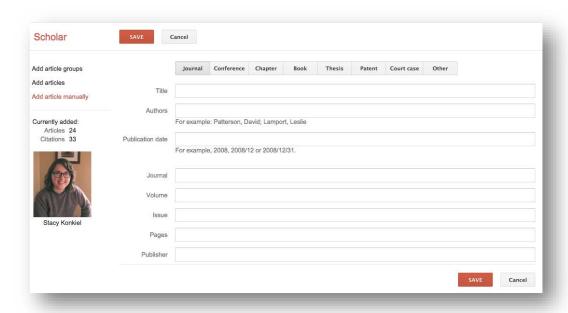
1. Add missing articles

You might have an article or two that Google Scholar didn't automatically add to your profile. If that's the case, you'll need to add it manually.

Click the "Add" button in the grey toolbar in the top of your profile.



On the next page, click the "Add articles manually" link in the left-hand toolbar. Then you'll see this screen:



It's here where you can add new papers to your profile. Include as much descriptive information as possible--it makes it easier for Google Scholar to find citations to your work. Click "Save" after you've finished adding your article metadata, and repeat as necessary until all of your publications are on Google Scholar.

2. Clean up your Google Scholar Profile data

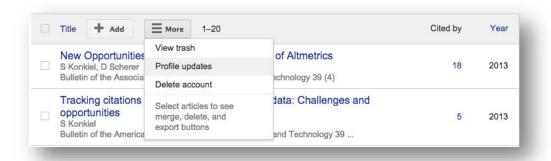
Thanks to Google Scholar Profiles' "auto add" functionality, your Profile might include some articles you didn't author.

If that's the case, you can remove them in one of two ways:

• Clicking on the title of each offending article to get to the article's page, and then clicking the "Delete" button in the top green bar

• From the main Profile page, ticking the boxes next to each incorrect article and selecting the "Delete" from the drop-down menu in the top grey bar

If you want to prevent incorrect articles from appearing on your profile in the first place, you can change your Profile settings to require Google Scholar to email you for approval before adding anything. To make this change, from your main Profile page, click the drop-down menu that appears in the top grey bar. Select "Profile updates":



On the next page, change the setting to "Don't automatically update my profile."

Prefer to roll the dice? You can keep a close eye on what articles are automatically added to your profile by signing up for alerts and manually removing any incorrect additions that appear. Here's how to sign up for alerts: click the blue "Follow" button at the top of your profile, select "Follow new articles," enter your email address, and click "Create alert."

2. Learn how to export your publications list in BibTeX format

There will likely be a time when you'll want to export your Google Scholar publications to another service <u>like Impactstory</u> or Mendeley. Here's how to do that.

Tick the box next to each article whose details you want to export. (If you want to export all your articles, you can do that easily in the next steps.) Click the "Export" button, and then choose BibTeX to export your file. Choose to export either the selected articles or all articles from your profile, and then click "Export" again to download your "citations.bib" file.

In coming days, we'll also cover how to use Google Scholar to stay abreast of new research in your field and new citations to your work. Tomorrow, we conquer social bookmarking and reference management website, Mendeley.

Day 4: Connect with other researchers on Mendeley.com

Next up for our Impact Challenge is Mendeley.

Are you surprised? While there was <u>pushback against Mendeley after it was unexpectedly bought by Elsevier a few years ago</u>, and it is <u>marketed more as a reference manager than a social network</u>, Mendeley remains popular with many academics and librarians. It offers ways to connect with other researchers that you can't find on other platforms.

Mendeley Web (the online counterpart to the desktop reference management software) is similar to <u>Google Scholar</u> in several ways. What's distinctive about Mendeley is that it offers better opportunities to interact with other researchers and get your research in front of communities that might be interested in it, in a context where they're largely interacting with scholarship they intend to actually read and cite.

Moreover, Mendeley's Readership Statistics can tell you a lot about the demographics that have bookmarked your work–an important indicator of who's reading your work and who might cite it in the future.

We're also going to talk in this chapter about Zotero, which is quite similar to Mendeley. We're big supporters of Zotero because it's an open-source non-profit, and we see that as a killer feature for science tools. However, although it really shines as a reference manager, Zotero's community features are less powerfulmostly because they have less activity. So, below we'll provide links and information on how to do some of these steps in Zotero, but not in as much detail.

Step 1: Create a profile

Logon to Mendeley.com and click the "Create a free profile" button. Create a login and, on the next screen, enter your general field of study and your academic status (student, professor, postdoc, etc.).

As you advance to the next screen, beware: Mendeley Desktop will automatically start downloading to your computer. (You'll need the Desktop edition to make the next step a bit easier on yourself, but you can also make do without it. Your call.) Download it and install it if you plan to use it for the next step–importing your publications.

Zotero alternative: Logon to Zotero.org, click "Register" in the upper right-hand corner, and register for an account. Once you've validated your new account, click your username in the upper right-hand corner (where it says, "Welcome, [username]!") and then click on the "Edit Profile" link on the next screen to head to the Profile section of your Zotero settings. There, you can create a profile.

Step 2: Import your publications

If you didn't install Mendeley Desktop, here's how to add your references manually using Mendeley Web:

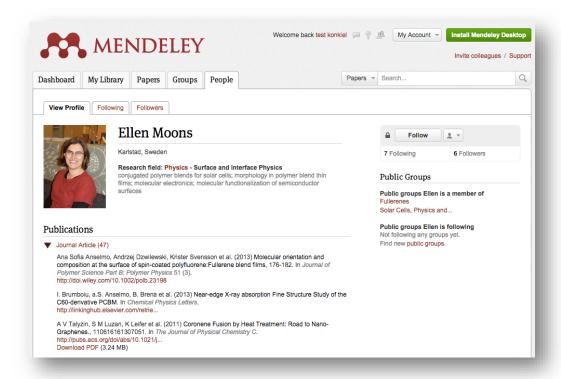
- Click the "My Library" tab, then the "Add Document" icon.
- On the "Add New Document" dialog box that appears, select "My Publications" from the "Add to" drop-down menu, then use the "Type" drop-down menu to specify what type of document you're adding to your "My Publications" list (article, book section, thesis, etc.).
- The dialog box will automatically expand, giving you many fields to fill out with descriptive information for that publication. Complete as many as possible, so others can find your publication more easily. If an Open Access link to the full-text of your publication exists, provide it in the URL box. And be sure to add a DOI, if you've got one. Click "Save" when finished.
- Rinse and repeat as necessary, until all your articles are added to your profile.

If you've got Mendeley Desktop installed, your job is much easier. Export your publications in .bib format from Google Scholar (which we covered in the previous chapter), and then:

- Fire up Mendeley Desktop and select "My Publications" from the "My Library" panel in the upper left corner of the screen.
 - Click File > Import > BibTeX (.bib) on the main menu.
- On your computer, find the citations.bib file you exported from Google Scholar, select it, and click "Open". Mendeley will begin to import these publications automagically.
- In the dialog box that appears, confirm that you are the author of the documents that you're importing, and that you have the rights to share them on Mendeley. Click "I agree."
- Click the "Sync" button at the top of the Desktop screen to Sync your local Mendeley library with your Mendeley Web library.

That's it! You've just added all your publications to your Mendeley profile. And you now know how to add any missing publications that didn't auto-import, to boot.

Here's what your profile page will look like, now that you've added publications to your My Publications library:



Zotero alternative: to auto-import your publications from a BibTeX file, <u>follow these instructions</u>. To manually add publications, <u>follow these instructions</u>.

Step 3: Follow other researchers

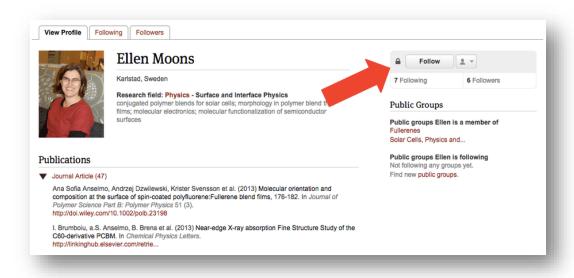
Now you're ready to connect with other researchers. Consider this step akin to introducing yourself at a conference over coffee: informal, done in passing, and allowing others to put a face to a name.

First, you'll need to find others to follow. Search for colleagues or well-known researchers in your field by name from the Mendeley search bar in the upper right-hand screen of Mendeley Web:



Be sure to select "People" from the drop-down menu, so you search for profiles and not for papers that they've authored.

When you find their profile, click on their name in the search results, and then click the "Follow" button on the right-hand side of the profile:

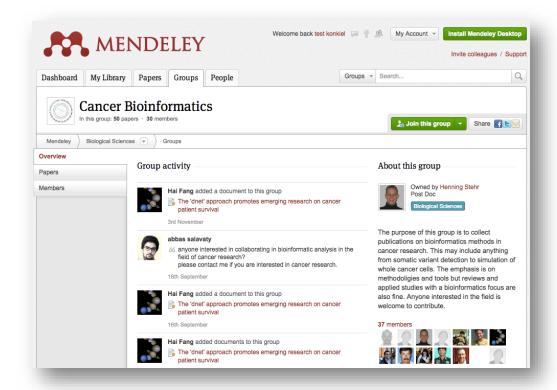


That's it! Now you'll receive updates on your Mendeley homepage when they've added a new publication to their profile or done something else on the site, like join a group.

Zotero alternative: Zotero works in a very similar way. Search for your colleague, find their profile, and click the red "Follow" button at the top-right of their profile to begin following them.

Step 4: Join groups relevant to your research

If Step 3 was like introducing yourself during a conference coffee break, Step 4 is like joining a "Birds of a Feather" group over lunch, to talk about common interests and get to know each other a bit better.



Mendeley groups are places where researchers interested in a common topic can virtually congregate to post comments and share papers. It's a good place to find researchers in your field who might be interested in your publications. And it's also the single best place on the platform to learn about work that's recently been published and is being talked about in your discipline.

To find a group, search for a subject using the search toolbar you used for Step 3, making sure to select "Groups" from the drop-down menu. Look through the search results and click through to group pages to determine if the group is still active (some groups were abandoned long-ago).

If so, join it! And then sit back and enjoy all the new knowledge that your fellow group members will drop on you in the coming days, which you can view from either the group page or your Mendeley Web home screen.

And you can feel free to drop some knowledge on them, too. Share your articles, if relevant to the group's scope. Pose questions and answer others' questions. Openly solicit collaborators if you've got an interesting project in the pot that you need help on, like Abbas here has:



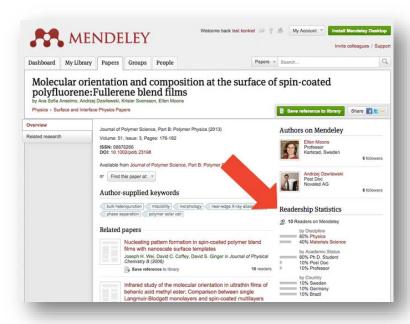
Use groups like you would any other professional networking opportunity: as a place to forge new connections with researchers you might not have a chance to meet otherwise.

Zotero alternative: Zotero works in a very similar way. Search for a group topic, find a group you want to join, and click the red "Join Group" button at the top of the page.

Step 5: Learn who's bookmarking your work

Once your work is on Mendeley, you can learn some <u>basic information</u> about who's saving it in their libraries via Mendeley's Readership Statistics. And that's interesting to know because Mendeley bookmarks are <u>a leading indicator for later citations</u>.

To see the readership demographics for your publications, head to the article's page on Mendeley. On the right side of the screen, you'll see a small Readership Statistics panel:



Readership Statistics can tell you how many readers you have on Mendeley (how many people have bookmarked your publication), what discipline they belong to, their academic status, and their country. Very basic information, to be sure, but it's definitely more than you'd know about your readers if you were looking at the number of readers alone.

Zotero alternative: Zotero doesn't yet offer readership statistics or any other altmetrics for publications on their site, <u>but they will soon</u>.

Limitations

Perhaps the biggest limitation to Mendeley is their association with Elsevier. Mendeley was acquired by the publishing behemoth in early 2013, while the ghastly, Elsevier-backed Research Works Act fail was still fresh in many academics' minds.

As danah boyd points out, even after Elsevier dropped support for the RWA and the <u>"#mendelete"</u> fracas ended, <u>Elsevier was (and is) still doing a lot that's not researcher-friendly</u>. And yet, some of us continue to eat at McDonald's knowing <u>what goes into their chicken nuggets</u>.

Like any big organization, Elsevier does some stuff right and some stuff wrong, and it's up to researchers to decide how it all balances out; there's lots of room for reasonable folks to disagree. For what it's worth: at Impactstory, one of us is a Zotero early adopter and code-contributor, one of us has switched from Mendeley to Zotero, and one of us uses both. ©

Drawbacks to the platform itself? You can't easily extract readership information for your publications unless you use Mendeley's open API (too high a barrier for many of us to pass). So, you'll need to cut-and-paste that information into your website, CV, or annual review, just as you would when using Google Scholar. (It's relatively easy to extract readership numbers using third-party services like Impactstory, on the other hand. More on that in the following chapters.)

A final drawback: if you want to add new publications, you'll have to do it yourself. Mendeley doesn't auto-add new publications to your profile like Google Scholar or other platforms can.

Homework

First, complete your profile by manually adding any works that the BibTeX import from Google Scholar didn't catch.

Next, build your network by following at least five other researchers in your field, and joining at least two groups. On each of the groups you've joined, share at least one publication, whether it's one you've authored or one written by someone else. Remember, make sure the publications you share are relevant to the group, or else you'll be pegged as a spammer.

Over the next few days, log onto Mendeley Web (or Zotero Web) at least one more time, and become acquainted with your home screen timeline to stay abreast of new research that's been added to groups or your colleagues' profiles.

Finally, learn how to export your publications—and the rest of your library—from Mendeley, so you don't have to reinvent the wheel attempting to set up a profile for your publications on another platform. Here's how to get your library out of Mendeley in BibTeX format:

- In Mendeley Desktop, select all publications you want to export.
- From the main menu, click File > Export.
- In the dialog box that appears, choose BibTeX from the drop-down menu, rename your bibliography if you want, and choose a safe place to store the .bib file. Click "Save" and you're done!

Are you hangin' in there?

Tomorrow, we'll master LinkedIn. Get ready!

Day 5: make LinkedIn work for your research

Many academics used LinkedIn "just in case someone contacts them." Our job today is to make your LinkedIn profile great enough that others will be *eager to contact you*. We're also going to build out your network a bit, so others can see the high profile work you've done.

For today's challenge, we're going to:

- Highlight your best work
- Connect with other researchers
- Create a profile that presents the best version of you and also doesn't need a lot of regular maintenance

Step 1: Create a solid, low-maintenance profile

You want to create a profile that presents the very best version of you, and also doesn't need a lot of regular maintenance. (Who has time for that?) You'll do this by writing a headline and summary that makes it clear in general terms why you're a smart and talented researcher and choosing a profile photo that's both professional and inviting.

Make yourself memorable with a good headline

LinkedIn includes a short text blurb next to each person's name in search results. They call this your "Headline," and just like a newspaper headline, it's meant to stimulate enough interest to make the reader want more.

Here are some keys to writing a great LinkedIn headline:

- 1. **Describe yourself with the right words:** Brainstorm a few keywords that are relevant to the field you're targeting. Spend a few minutes searching for others in your field, and borrowing from keywords found in their profiles and Headlines. For instance, check out <u>Arianna C's</u> Headline: "Conceptual Modeling, Facilitation, Research Management, Research Networking and Matching". Right away, the viewer knows what Arianna is an expert at. Your headline should do the same.
- 2. **Be succinct:** Never use two words when one will do. (Hard for academics, I know. ③) <u>Barbara K.</u>, who works in biotech, has a great Headline that follows this rule: "Microbiologist with R & D experience."
- 3. **Show your expert status:** What makes you the chemical engineer/genomics researcher/neuroscientist? Do you put in the most hours, score the biggest grants, or get the best instructor evaluations from students? This is your value proposition—what makes you great. Those with less experience like recent graduates can supplement this section by showing their passion for a topic. (I.e., "Computer scientist with a passion for undergraduate education.")

4. **Use a tried and true formula to writing your headline:** 3 keywords + 1 value proposition = Headline success, according to career coach <u>Diana YK Chan</u>. So what does that look like? Taking the keywords from (1) and value proposition from (3) above, we can create a Headline that reads, "Computer scientist with a passion for undergraduate education and experience in conceptual modeling and research management." Cool, huh?

Well-written headlines are also key to making you more findable online-important for those of us who need disambiguation from similarly named researchers beyond <u>ORCID</u>.

Make yourself approachable with the right photo

The next step to making yourself memorable is to get a good photo on your profile. Here are three tips to remember:

- **Don't tilt your head**. Lots of folks, especially women, do this in photos to look friendlier, but it ends up making you look unassertive instead. Be confident.
 - Turn your shoulders; the straight-on post yells "mug shot."
- **Try posting an action shot**, emphasizing for the viewer what you're good at: public speaking, computer programming, and so on.

Craft a compelling summary section

Your Summary is an opportunity to provide a 50,000-foot view into your career and studies to date. Don't just use this section to repeat information found elsewhere on your profile. Instead, write a short narrative of your professional life and career aspirations, using some of the keywords left over from writing your Headline. When writing your Summary, aim to be specific and make your value clear.

Don't use technical jargon, but do provide concrete details about your research and why it matters. Make yourself a person, not just another name in a discipline. Describe what you've done and why it matters.

Here's a great example: <u>Elizabeth Iorns</u>, breast cancer researcher and entrepreneur, explains to profile viewers that:

"Based on her own experiences as a young investigator seeking expert collaborations, Dr. Iorns co-founded Science Exchange. In 2012, after recognizing the need to create a positive incentive system that rewards independent validation of results, Dr. Iorns created the Reproducibility Initiative."

Right there is specific proof that she gets stuff done: she's created solutions in response to service gaps for scientists. Impressive!

Step 2: Highlight your best work

Next, let's prepare for making a good impression on your LinkedIn network by highlighting the work that's most important to you. And you're going to get others to notice it by making sure some of it's eye-catching.

Brag about your best publications and awards

Consider your publications and awards the vegetables—the stuff you really want to be consumed. You're going to make others notice them by listing them alongside the sweets—your eye-catching content.

You'll want to highlight only your best publications (especially those where you're a lead author) and most prestigious awards (i.e., skip the \$500 undergraduate scholarship from your local Elks club). List no more than 5 total.

Here's how to add them: in Edit Profile mode, you'll see a "Recommended for you" panel to the right of your profile photo and header section. Click the "Publications" tile to add that section to your profile.

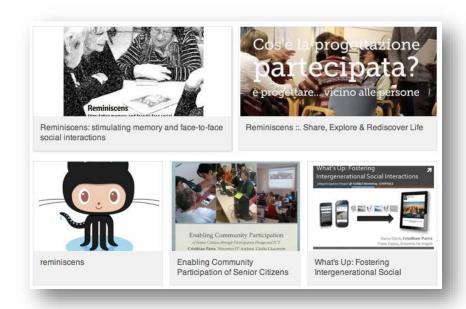
On the Publications section, you'll need to manually add publication details. Here are the most important details to include:

- Title (this one's a no-brainer)
- Publication URL (so others can click through to read your work)
- Description (include your abstract in this space)

You can also add your co-authors, if they're on LinkedIn and you're already connected.

Now that your articles are added, drag the Publications section to appear just above or below any eye-catching content on your profile.

Add some eye-catching content



With a little ingenuity you can make LinkedIn pretty good for showcasing what scientists have a lot of: posters, slide decks, and figures for manuscripts.

If you've ever given a talk at a conference, or submitted a figure with a manuscript for publication, you can upload it here, giving viewers a better taste of your work.

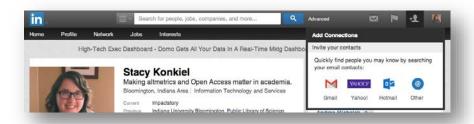
Neuroscientist <u>Bradley Voytek</u> has added a Wow Factor to his profile with a link to a TEDx talk he gave on his research. Pharmacology professor <u>Ramy Aziz</u> showcases his best conference talks using links to Slideshare slide decks. And GitHub repositories make an appearance alongside slide decks on postdoc <u>Cristhian Parra</u>'s profile (pictured above).

You too can upload links to your best–and most visually stimulating–work for a slick-looking profile that sets you apart from others. Here's how: add links, photos, slideshows, and videos directly to your profile using the Upload icon on your profile's Summary and Experience sections.

One caveat to adding content to your profile: LinkedIn does not offer analytics that show you how often your work is viewed or downloaded on the site. So, you'll be unable to say with certainty what LinkedIn has done for your readership and so on, but that's okay: LinkedIn is more about relationships and the boost they'll give your reputation, instead. Read on.

Step 3: Connect with other researchers

Connecting with other researchers on LinkedIn is just one more way to build an audience for your research. Connections help you maintain relationships with past and current colleagues, who are likely interested in the work you're doing and want to read about it.



It's surprisingly easy to find people you already know and add them to your network on LinkedIn.

Use the Add Connections tab in the top right corner of your profile to connect LinkedIn to your email account.

LinkedIn then suggests Connections based on your contacts. An important rule to follow for LinkedIn is to only select Connections you actually know and feel comfortable asking to keep in touch (former collaborators, co-workers, and friends are good choices).

When Connecting, it's a nice touch to send a message saying hello. Networking is <u>all about building meaningful relationships</u>, not how many people you have in your virtual Rolodex.

Limitations

LinkedIn is a decent tool for professional visibility, but it's not without its headaches. Chief among them is that it's yet another information silo. (And that's why you're setting up a profile that's going to be easy to maintain, so you don't have to update it but once a year.) LinkedIn's also overzealous with their notification emails, sending more in a month than most of us would care to receive in a year. Luckily, they're easy to turn off; check out this blog post for a short-and-sweet how-to.

Homework

Add your best work

First things first: get at least three of your most important publications onto your profile, add some eye-catching content, then rearrange your profile sections so

your Publications get prime real estate next to the most visually-stimulating pieces on your profile.

Make yourself more "googleable"

Next, you need to make it easy for others to view your profile. What good is a killer LinkedIn profile if no one can find it, or if your profile is so locked down they can only see your name?

Check your "public profile" settings (go to Privacy & Settings > Edit your public profile) to make sure people can see what you want them to. What might others want to see? Your past experience, summary, and education, for starters; also include your best publications.

Next, double-check your settings by signing out of LinkedIn completely and searching for yourself on both LinkedIn and Google.

Expand your network

Finally, let's expand your network by requesting an introduction to a new contact. If done correctly, it can get you name recognition with important researchers.

Here's an example of how that would work: I'm not currently Connected to genomics researcher Mike Eisen on LinkedIn, but let's say I want to collaborate with him to do some research on a great idea I have.

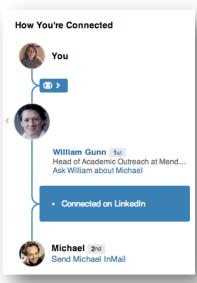
The first thing I need to do to connect with him is find a contact that we have in common.

So, I visit Mike's profile. On the left-hand side is a "How You're Connected" graphic. I can scroll through the list of contacts we have in common to find a suitable middleman–Mendeley's William Gunn.

Next, I would click on the "Ask William about Mike" link. In the dialog box that appears, I'd write my request for an introduction and send it to William. The request should follow three key rules:

Be specific

William might take 10 minutes out of his day to write a recommendation for me, so I shouldn't waste his time. That means telling him exactly why I want to meet Mike: what Mike does that interests me (he's a genomics researcher), and what I'm looking to get out of an introduction (an opportunity to tell him about my great research idea: widgets for genomics researchers).



Include a "pitch" as to why an introduction would be valuable

Likewise, I should make it clear what Mike would get out of meeting me. What do I bring to the table? In this case, it'd be the chance to learn about a well-received new widget, and a future NSF grant opportunity.

Show appreciation, and also provide William with an "easy out"

William's time is valuable, so I should make it clear that I'm thankful that he's considering writing an Introduction. A good way to do that in addition to saying thanks is to give him a way to beg off without feeling too guilty.

Two additional rules for special scenarios are: 1) If we didn't know each other well, I'd want to remind William how we met, and 2) If William does introduce Mike and I, I should follow up with an update and thanks.

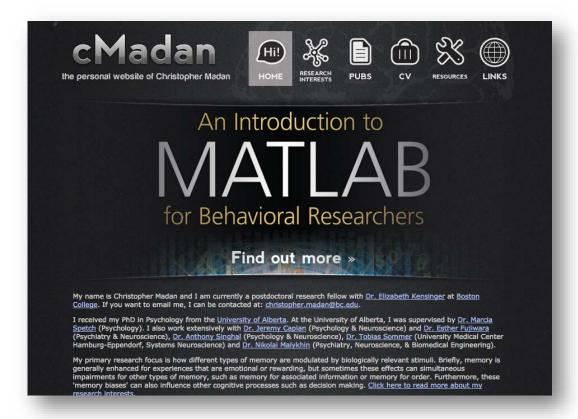
An example introduction request can be found on this blog post.

One final note: keep your requests for introductions to "2nd degree connections"—that is, friends of friends—because your chances of getting a meaningful introduction to a stranger through a friend of a friend depends on too many variables to be successful.

You've just completed the Day 5 challenge. Congrats! We're very proud of you.

But don't go anywhere just yet! We'll be bringing you two important challenges: creating an effective website and starting a professional blog. See you tomorrow!

Day 6: Create an academic website



Over the past five days, you've set up profiles on a variety of professional social networking platforms. Today, we're going to create the hub that will bring them all together: a professional website.

You might already have a university-issued webpage, perhaps linked to your departmental website. They're all right for showcasing basic information about you, but they often do your research a disservice.

Because of their rigid formatting and style requirements, you often can't link out to your full-text publications, showcase scholarship that's not shaped like an article, or add the number of articles and other scholarly products that best explains your career. And the other important things you do-teaching, mentoring, service, and so on? You often can't share them at all.

Today, we're going to help you create a flexible website that will easily bring together all of your identities. You'll learn how to embed and automate content so you don't have to constantly update your website. And we'll get you started with recommendations for both DIY and "plug and play" website hosts that offer solid search engine optimization to-you guessed it-increase your "googleability."

Choosing a hosting solution

If you're lucky, your institution offers a free hosting solution. For those who don't have access to free hosting, let's cover your options.

Now, there are basic hosting solutions like Hostgator, Dreamhost, etc., but you'll need to sling html to make them work. Here, we'll focus on some solutions that offer a little more scaffolding out of the box.

Let's start with the hosts that are easiest for novices to use.

Squarespace is an out-of-the-box hosting solution. You can code your own site or use their slick-looking design templates to create and customize your website. They've also got a built-in blogging platform—which will be useful for tomorrow's challenge—and <u>reportedly better SEO</u> than other drag-and-drop website builders. The lowest tier of the service costs \$10/month or \$96/year.

Example: Samuel N. Crane

<u>WordPress.com</u>-hosted sites are popular among academics. We'll cover the platform in detail tomorrow, but it's essentially a blogging platform that can be shoehorned into serving as a website. It offers good SEO, a simple-to-use interface, and out-of-the-box design "themes" that are as pretty (if not as easily customizable) as Squarespace's. WordPress.com sites are free to create, but certain services like extra hosting space and domain name registration cost extra. **Example:** <u>Joanna Dunlap</u>

GitHub Pages is a popular hosting option for the tech-savvy researcher. If you're already a user of the platform, Pages is a (relatively) simple solution. It allows for custom URLs and connects with a Markdown-enabled blogging platform called Jekyll (again, useful for tomorrow's challenge). It's free, which makes the 100 MB per file and 1 GB per repository space limits forgivable. Check out this guide to get started. Example: Ahmed Moustafa

Do some "market research"

Now that you've got a host for your website, your next job is to learn what makes an academic website great. Search for others in your discipline, academics in other fields, and even professionals who work outside of the Ivory Tower. The point is to find sites that you want to emulate for both design and content, make some mental notes about what makes them "work," and maybe even bookmark them for later reference.

In addition to the examples we provided in the previous section, we recommend checking out these sites for some inspiration:

• <u>Christopher Madan</u>: Chris is a postdoc at Boston College. This website is both visually appealing (great use of icons, photos, and formatting) and prominently includes important information about his career milestones (an

"Intro to Matlab" book he wrote, links to publications and his CV, and a frontand-center bio that tells you what he's all about).

- <u>Carly Strasser</u>: Carly is a marine biologist turned Research Data Specialist with the California Digital Library. Her website works because it's clean and simple, while making her expertise clear. She includes links to both papers and presentations, and also a prominent link to her blog–an important outreach tool.
- Mike Brennan: Mike is an "alt-ac"—a researcher-turned-technologist and project lead at Second Muse. His website doesn't have the slickest design, but it doesn't matter. He nails his research career narrative by including front-and-center media coverage, links to publications and talks, and a list of awards. It's easy to figure out how to contact him and links to personal photos and his record label give you a sense of his personality.

Got a sense of what a solid professional website looks like? Good, now let's move on to what you should include in yours.

Essential components of a great professional website

As we've seen from Mike's example, design is just aspect of your professional website. Let's dig into the key types of content that you should include.

A short bio and recent photograph

Don't use your bio to recount your entire career—that's what your CV is for. Instead, be sure to state the most important thing about yourself first and foremost, and fill in the rest with broad strokes.

Who are you and what makes you tick as a researcher? What have your most important accomplishments been to date? Write a paragraph or two, and then take a knife to it, <u>cutting it down to bare essentials</u>.

Want more advice on writing good bios? Guides to writing an effective bio can be found here and here.

And remember what we learned from <u>yesterday's challenge</u> about good professional photos? Apply those guidelines to help you choose a good photograph for your website or, even better, just reuse the same photo from your LinkedIn profile.

Once you've got your bio and your photo ready to go, you'll need to decide where to include it. I recommend keeping it simple by adding both to your homepage, but you can include them in a separate "About" or "Bio" page, instead.

Research interests

Now you're going to tell others about your research. Your Research Interests page should be a punchier version of your Research Statement. If you've applied for a job or a promotion in the past few years, you likely have one handy.

The purpose of this section is to get others interested in your research, and help them understand how you've contributed to your discipline. You'll describe what you've accomplished to date and what problems you're currently working on.

Keep in mind that the Research Interests page should be much shorter than a formal Research Statement–no more than 2-3 paragraphs. Any longer and you risk losing your readers. Some jargon is acceptable in this section, but don't go overboard–write as though you're explaining your work to another academic who's not in your discipline.

You might also choose to summarize some projects that you've most recently worked on (or for which you're particularly well known) on this page. A paragraph or two per project is all that's needed. Alternatively, you can break these descriptions out into a standalone Projects page.

Teaching & pedagogical materials

If you're currently teaching or have taught in the past and want to highlight that experience, a Teaching page is the place to do it. List the courses you've taught, when you taught them, and include syllabi and any class materials here.

Similarly, if you want to highlight your mentoring activities or service to your field in their own standalone pages, you can do that, too.

Contact information

If others are interested in your work, how can they best reach you? Include both your current university contact information on this page and—most importantly—an email address that won't easily go out of date if you switch institutions (your personal email address will work, if you're comfortable listing it).

And because this is the 21st century—and you're quickly becoming a very connected scholar—this is a good place to list links to your other profiles from across the web.

Your CV

The only thing more annoying than keeping your CV up-to-date is remembering to upload it to your website after you've changed it.

I'm going to share with you a super-efficient hack that made updating my CV downright pleasurable: embedding your CV in your website using Dropbox, so any changes you make automatically appear online.

If you don't already have a Dropbox account, you can <u>sign up for one here</u> for free.

In Dropbox, copy a Word version of your CV into the "Public" folder. Make sure your CV is up-to-date, and then save it as a PDF.

On your website, create a separate webpage for your CV. Then, insert this code where you want the embedded PDF to appear:

```
<iframe style="width: 610px; height: 850px;"
src="https://dl.dropboxusercontent.com/u/[URLHASH]/[CV
FILENAME].pdf" frameborder="1" width="320" height="240"></iframe>
```

The URL you'll use can be found by right-clicking on your CV while in Dropbox, selecting "Copy Public Link," and pasting it into the code above.

When all is said and done, you'll have an embedded CV in your website that looks like this:

+ 1 (812) 783-4	CY R. KONKIEL 1630 - stacy.konkiel@gmail.com npactstory.org/skonkiel
EDUCATION	
M.L.S., Concentration in Digital Libr M.L.S., Concentration in Information Indiana University, Bloomington, IN B.A., English, University of Delaware	Retrieval Systems Design, August 2008
PROFESSIONAL EXPERIENCE	
Director of Marketing and Research Impactstory.org	March 2014 to present
Science Data Management Librarian Herman B Wells Library, Indiana University,	Bloomington, IN January 2012 to February 2014
Marketing Associate Public Library of Science (PLOS), San Francis	co, CA August 2009 to December 2011
Digital Repository Resident Librarian ScholarWorks, University of Massachusetts, A	mherst, MA August 2008 to July 2009
GRANTS & AWARDS	
Innovative Teaching and Learning, Indian Library Research Support Genart, Feathins Determining Deposit Rates in DSpace-sup Determining Deposit Rates in DSpace-sup Librarians Association (Inst'LA), 2013 David Dickey Continuing Education Assure Library Research Support Genart, "Libraria Limplementation of Allemetrics" Tools in Inst Content, "Library Research Support Genart, "Library Genary Research Support Genart, "Library Genary Research Support Genart, "Library Research Support Genary Research	hing Benchmarks for Supplying Identifier Metadata and protect Institutional Repositories. Indiana Tuliversity, 2013 July Benchmarks for Supplying Identifier Metadata and protect Institutional Repositories. Neurolana University J. Indiana Library Federation, 2012 J. Indiana Library Federation, 2012 Control of Control of Control of Control of Control of Control Control of Control of Control of Control of Control of Control of Control Control of Control of Cont
PUBLICATIONS	
*SEAD Virtual Archive: Building a Federat Preservation in Sustainability Science." In doi:10.2218/lide.v8iz.281 This paper ha	tury Solution to Determining Research Quality."

And the best part is, whenever you need to update your CV, you can just update the Word file that's in your Public Dropbox folder, re-save it (using the same filename) as a PDF, and the updated version will automatically appear on your website! Awesome, huh?

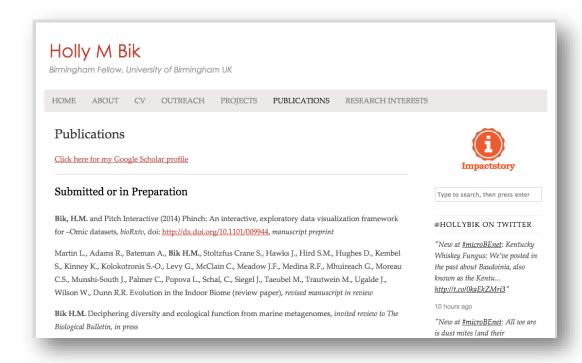
Your scholarship

Now that others have a sense of all the scholarly products you've ever created thanks to your CV, it's time to get others access to your most important works.

On this page, you'll list your publications, talks, data, software, and any other scholarly products that you want to highlight. The purpose of this page isn't to replicate what's on your CV; it's so your website's visitors can get a 50,000-foot view of your quality as a scholar.

There are two popular ways to create pages for your scholarship: put everything you've ever created onto a page; or highlight only your best or most recent work. We're going to take the latter approach, because it's easier to maintain over time.

Copy your best scholarly works from your CV to this page. Include the full citation and a link to the resource itself, like so:



Make it easy on your website visitors by listing no more than 20 products total.

An alternative approach to creating a standalone page for your scholarship is to <u>create an Impactstory profile</u>, which can capture all of your outputs, links to full-text, and their metrics into a single profile that's embeddable into your website.

Holly's linked to her Impactstory profile from her website, as we see above. But more on that in an upcoming challenge!

Homework

First of all, take a deep breath. You have a website and that's no small feat! Way to go!

Now let's add links to the profiles you've created so far (<u>Academia.edu</u>, <u>ResearchGate</u>, <u>Google Scholar</u>, <u>Mendeley</u>, and <u>LinkedIn</u>).

You might also <u>add Google Analytics</u> to your site, so you can tell you how often your site is visited and by what demographics.

Next, decide if you want to register for a domain name. There are a lot of reasons why you might want to do so, but I'm personally of the opinion that as long as you've got a unique name and good SEO, you don't need to. If you do decide to register your own domain name, know that Squarespace offers free registration and WordPress allows you to register through their site for a fee. I've heard good things about third-party registrar Namecheap, too.

Finally, take some time to experiment. The beauty of owning your own website is the freedom it offers. I'd recommend playing around with automating updates to your website. One way is to embed an RSS feed for your blog or Twitter stream (if you already have them–if not, we'll cover both soon). You could also embed a calendar that easily lets others know when you're available during work hours (hopefully freeing you of scheduling agony in the future). Google, Outlook, and third-party app UpTo calendars are good candidates for that.

Day 6: Success!

Now that you've got a website, we're going to get you a blog to go with it. It's an indispensable tool for building expertise and recognition in your field. See you tomorrow!

Day 7: Establish your expertise with a science blog



In today's challenge, we'll create a virtual water cooler for you to meet colleagues and debate research in your field. How? On your very own blog!

A blog can help you establish expertise, forge new intellectual bonds in your discipline, and give you a place to test out new ideas and promote your research. And it's surprisingly easy to maintain if you set it up right.

Let's get cracking!

Choose a platform

First things first: let's pick the technology you'll use to blog.

One popular option is WordPress. **WordPress** comes in both <u>open</u> <u>source</u> and <u>hosted</u> flavors. If you use the former, you'll have complete control over the look and feel of your blog, but also the responsibility for installing and maintaining the code on your website. The latter is better for those who aren't as technically inclined or who worry less about the ability to control their blog's appearance. For either option, WordPress offers an easy-to-use editing interface, solid analytics, and well-designed themes and plugins.

The <u>Jekyll platform</u> is a cult favorite that's used by many tech-savvy, GitHublovin' academics. It offers near-infinite flexibility of design, the ability to write posts in Markdown, and easy installation for those already on GitHub Pages. It doesn't

come with analytics out of the box, though, so you'll have to install <u>a separate plugin</u> <u>for Google Analytics</u>. For a full guide to setting up Jekyll, <u>check out this Smashing</u> <u>Magazine piece</u>.

Two other blogging platforms are popular among academics: Medium and Tumblr. Both are free to use. <u>Medium</u> is very easy to setup, offers a sleek design, and <u>helps promote your posts among other Medium readers</u>. The latter feature means that you won't necessarily have control over what posts are promoted on your blog, however, which is a drawback.

Tumblr is similarly simple to set up, offers a more customizable design than Medium, and is well-suited for <u>image-based research blogging</u>—appealing to informaticists who use data visualizations, those who want to blog about figures, and so on. A downside of the platform is that it's most popular with teens and early twenty-somethings, so it could be difficult to find a community of established scientists on the platform.

You might be wondering, "Where's the <u>Blogger</u> recommendation?" While Blogger is an out-of-the-box blogging platform that's similar to WordPress in many ways, in my opinion it doesn't offer the flexibility of design, easy website integration and domain name registration, or usability that WordPress does. That said, it is used by prolific academic bloggers like <u>Jonathan Eisen</u> and <u>Tanya Golash-Boza</u>. You're welcome to test it out for yourself!

Once you've chosen your platform, go ahead and set up your blog. Here are some tips for doing so:

- You'll have to register for a blog handle if you're using WordPress, Blogger or Tumblr (yourhandle.blogspot.com/). If you don't have a catchy blog title in mind, feel free to choose your name-it'll help people find you!
- If you'd prefer to have a catchy name for your blog, brainstorm some ideas. Some fun and informative blog handles I like are "Pharyngula," "Freakonometrics," and "Thread & Circuits."
- Create the look and feel you want for your blog, choosing a theme for your <u>WordPress</u> or <u>Jekyll blog</u> that matches your tastes. You might also consider choosing a theme based on its <u>SEO-optimization</u>.

Got your blog set up and ready to roll? Now it's time to decide what you're going to write.

Possible uses for your blog

There are a few ways that academics tend use their blogs: to publicize their own work, to discuss others' research, or some combination of the two. Here are some examples.

Spreading the word about your research



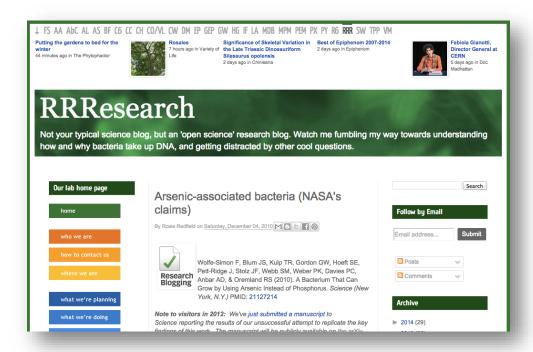
Jonathan Eisen is famous for (among other reasons) using his blog to spread the word about his own research.

Back in 2011, he published <u>a paper in *PLOS ONE*</u>. Normally, academics will use their university's press office to explain their publications' significance to the media and the public; Eisen decided he wanted to tell the story of his study himself. So, he <u>took to his blog</u>.

The study picked up a lot of press coverage (including the *The Economist* and *New Scientist*), received more views and altmetrics compared to other *PLOS ONE* papers published in the same discipline and year, and-best of all-allowed the person who was best acquainted with the research to talk about it with the world.

Another option is to blog about your in-progress work. Blogs are <u>excellent for engagement</u>, and can be useful to get feedback from your peers on challenging problems or new ways to view your results. Be careful not to scoop yourself, though–if you plan to formally publish on a study, you might consider waiting on reporting your final results.

Commenting on others' research



Many academics use their blogs as a form of post-publication peer review, offering their feedback on recent publications in their field.

Rosie Redfield is among the most famous to do so, having written a stellar takedown of the over-hyped "arsenic life" paper that was published in 2010. Her blog allowed her to respond to the article within days of its publication. (Compare that to the two years it took for her formal response article to be published!) That speed, along with the fact that she can engage rapidly and often with her readers via the blog's comments section, makes blogging an excellent forum for post-publication peer review.

What else can you do with your blog?

You can use it for <u>advocacy</u>, <u>editorializing</u>, and <u>event promotion</u>, among many other things. The sky's the limit!

Decide on a posting schedule and stick to it

Got an idea of what you want to blog about? Now it's time to figure out *how* you're going to blog.

Many "blogging for beginners" guides recommend setting a posting schedule for yourself. That can be once a week, once a month, or however often you can manage.

Why do you want a schedule? Regular posts are key to having an audience that'll return to your blog. And having a framework to work from keeps you organized in the rest of your life.

Key to finding a schedule that works for you is having realistic expectations about the amount of time it'll take you to research and write a blog post. And that will depend upon what you've decided to blog about.

Write one or two posts to start out with, timing how long it takes for each. (You can expect that number to go down over time, as you get better at writing more quickly.) Then, look at your schedule and see how often you can spare that chunk of time. That's your posting schedule.

Brainstorm posts in advance

Got your schedule decided upon? Now it's time to make life easier on your future-self by brainstorming a boatload of post ideas at once.

Starting a blog can be intimidating because it's hard to imagine that you'll have things to write about on a regular basis. Having this master list of ideas that you can return to again and again is reassuring. It also makes it much easier to stick to your blogging schedule.

In addition to interesting topics, recently published papers, and personal updates on your research, some other easy wins can be found by repurposing stuff you're doing in the rest of your life into "low-cost" posts. As computer scientist <a href="Mattunderlangth="Mattunderlang

The secret to low-cost academic blogging is to make blogging a natural byproduct of all the things that academics already do.

- Doing an interesting lecture? Put your lecture notes in a blog post.
- Writing a detailed email reply? "Reply to public" with a blog post.
- Answering the same question a second time? Put it in a blog post.
- Writing interesting code? Comment a snippet into a post.
- Doing something geeky at home? Blog about what you learned.

Aim to come up with at least 50 post topics before moving onto the next step: writing headlines that will snag readers.

Write effective headlines

Headlines are your best way to get a piece of your readers' limited attention bandwidth. Some keys to writing headlines that work, <u>according to the blogging experts at Buffer</u>:

- Put the most compelling stuff in the first and last three words of your headline (research tells us that most readers will only absorb that much)
- Keep your headlines to 50-ish characters or less, so it won't get truncated by search engines
- Use psychology to compel people to read your post (headlines that are surprising, ask questions, super-specific or <u>follow these other principles</u> are proven effective)

So what does this look like in reality? Here are some examples:

- Why are vegans the best lab workers? (Asks question, follows "6-word" principle, element of surprise)
- 5 ways Mike Eisen's dead wrong about Open Access (specific, follows "6-word" principle, element of surprise)
- How I landed a postdoc gig without even trying (tells readers "how to", piques curiosity)

A surefire way to keep your readers hooked, no matter what, is making sure your blog posts' titles matches each's content. If they're too obtuse or "click-baity", people will stop clicking through to read your blog.

Remember: practice makes perfect. Writing good headlines is hard work. That's why people get paid to do it for a living! You'll likely write and re-write a headline several times before you find one that resonates with you.

Make your posts more popular with images

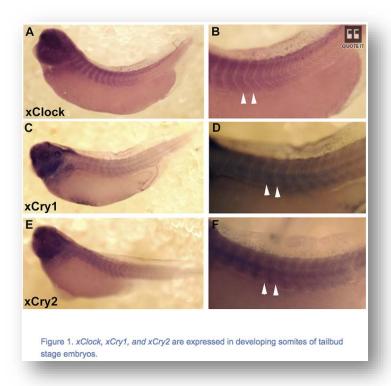
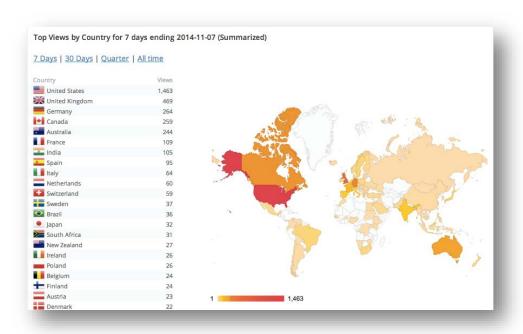


Image CC-BY Curran et al in PLOS ONE (2014) doi:10.1371/journal.pone.0108266.g001

Images can help break up blocks of text, making your posts more readable (and thus more popular). And they also can help illustrate your points.

Aside from blogging images found in papers you're reviewing or that you've created, my number one recommended place to find free images is the <u>Flickr Creative Commons search</u> (though sometimes there's a lot of chaff that needs separating out). Buffer has also compiled <u>a list of other free and public domain images</u> you can use in your posts.

Learn about your readers



Your final task is to set up an analytics service so you can learn about your readers.

Two popular options, <u>Google Analytics</u> and <u>WordPress's built-in statistics</u> <u>package</u>, can tell you how many visitors your blog has received, what countries they're coming from, what websites and search engines led them to your blog, what posts they're reading, and much more.

Google Analytics, in particular, can be overwhelming to use–it's a powerful tool that can seem like overkill for the novice. CUNY's Academic Commons blog has a great starter guide to the service.

Homework

Your homework is deceptively simple: choose from among the blog topics you've brainstormed and write a post with a great headline.

Seriously-that's it!

Tomorrow, we'll talk about publication self-promotion platform Kudos.

Day 8: promote your research with Kudos

So far we've covered several ways to promote your work among your colleagues, but how can you better promote your work to the public?

The public is increasingly interested in the results of taxpayer-funded research, and the government agencies that fund you want to know your "broader impacts". What can you do about it? Getting your work in front of those who understand what you do can be difficult enough; how can you expect *laypeople* to see it and, more importantly, to "get it"?

Nowadays, there are a lot of platforms available that can help you promote your work. One of your options is Kudos. **Kudos** is a for-profit company built to help researchers explain their studies to both the public and others in their field. And yet, its customers aren't authors but publishers.

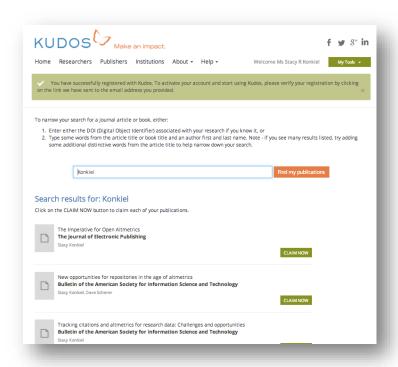
Kudos' customer list includes both toll-access and open access publishers, including eLife, Elsevier, the Royal Society of Chemistry. Publishers pay Kudos to get access to premium features for their authors. But anyone can sign up for free and use Kudos' basic promotion and analytics tools to learn if others are reading and discussing their work online.

Today, we'll help you check out Kudos as a tool for promoting your papers. Let's dig in.

Sign up for an account

Head to <u>growkudos.com</u> and click the "Register" button in the upper right-hand corner. On the next screen, add as much professional information as possible, including your ORCID ID-this will help Kudos automatically find your articles in the next step. When you've entered all your information, click the green "Sign up" button, and then login to your email to confirm your account.

Claim your publications



Next, Kudos will list publications it believes to be yours. Add them to your profile by clicking the green button beside each title. If you make a mistake, you can always "unclaim" the paper by clicking the button again.

If any of your publications are missing, you can search for them by title or by adding a DOI.

Are all of your papers added? Great, let's move on.

Explain your publications

Now, we get to the useful part of Kudos' platform: explaining your articles.

All of the following steps will help those outside of your field better understand your research and why it's important. This is an important but time-intensive part of the outreach process. So, you'll likely just want to do the following for three or four of your papers that you need the most help promoting to the public.

Short title

Some paper titles can end up being long and jargon-filled. Adding a short title can help make your paper more discoverable by others in your field and beyond.

When writing your short title, try to strike a balance between phrases that your target audience will search for and phrases that are easy for your those outside

of your core audience to understand. The LSE Impact Blog <u>recommends</u> "a full 'narrative title' that clearly summarizes the substance of what the article argues or what has been found out."

So, this title ("Quindolinocryptotackieine: the elucidation of a novel indoloquinoline alkaloid structure through the use of computer-assisted structure elucidation and 2D NMR") might end up looking more like this ("A computer-aided exploration of a new indoloquinoline alkaloid structure, quindolinocryptotackieine") when shortened.

Lay summary

This is your chance to explain the study in detail, with public engagement in mind. Why does your research matter, and where does it fit in the bigger picture? Overall, try to avoid jargon, keep your sentences simple, and answer the question that's inevitably in your readers' heads: "What's in it for me?"

More information on writing lay summaries can be found on the <u>Digital</u> Curation Centre and Asthma UK websites.

Impact statement

Kudos describes the Impact Statement section as "an explanation of what is most unique and/or timely about your work, and what difference it might make." This is your chance to go into more detail about why your study was worth publishing about. How did it expand upon previous studies? What problems did it solve for the world? How might your readers' lives be affected by the outcome?

Add links to supplemental materials and rich media

If you have figures, a video, or any other type of supplemental material, add links to each paper in this step. Creating these backlinks can help up your papers' ranking in search results, and those supplemental materials can help your readers better understand your papers.

Share your papers

Next, you're going to share your papers with your colleagues and the public.

On your publication page, click the green "Share now" button in the middle of the page. You'll next be prompted to post your paper to Twitter, Facebook, or elsewhere online using a special Kudos URL that includes a tracking code. The code will help you measure how often that link to your paper has been clicked on, which in turn will measure the effectiveness of Kudos' outreach mechanisms.

If you want to share your paper to Twitter and Facebook, connect those services to Kudos. If you'd prefer to share it via email, on your shiry new blog, or elsewhere on the Web, choose the "Share Online" option and then select what kind of trackable URL you want to use.

Measure the success of your outreach

In addition to the trackable Kudos URL that you've now shared on the Web, you can discover the level of attention your work has received overall via Kudos' integration with Altmetric.com.

Here's how to access your metrics: on any page for your publications, click on the blue "Publication Metrics" button to see a table of your articles and the attention they've received online. There are two types of metrics you can see on this table: Kudos-specific metrics and Altmetric.com-powered metrics.



Kudos metrics

Kudos reports the number of share referrals, Kudos views, click throughs, and full-text downloads your paper has received. These metrics really only tell you about the success of promoting your paper on Kudos-they're unable to tell you how often your paper has been shared using other links and DOIs.

Nonetheless, Kudos users do find these metrics useful–they <u>helped this</u> <u>scientist see a definite bump in full-text downloads</u> after he claimed one of his papers.

Altmetric.com metrics

These metrics can tell you about the attention your work has received on the Web overall—to a limited extent. Currently, Kudos lists the Altmetric.com score—a weighted sum of your news coverage, blog posts, Twitter mentions, and other online shares and mentions your work has received.

The exact weights for the Altmetric score are not published, making it difficult to interpret. More useful data can be found by clicking the "More Details" icon to the immediate right of any of your papers' titles to drill-down into what specific types of attention your article has received online.

That said, the Altmetric score can be used with caution to get a quick overview of which of your articles are getting more online attention than others. We'll talk more later in the Impact Challenge about how to get more useful, in-depth,

and transparent metrics of impact from Altmetric.com, Impactstory, and other sources.

Limitations

While Kudos makes it easy to claim papers, other features are more time consuming. The biggest drawback is the amount of time needed to write short titles, lay summaries, and impact statements for each of your articles.

There's no way around it–you'll have to put in some serious thought to write 'em, and that translates to a lot of time. So, you'll likely want to only write those titles, summaries, and impact statements for the papers you most want to have public exposure.

We also have reservations about the Kudos business model. It has pros and cons, for sure: it's free to researchers (pro), but it's primarily supported by publishers' money, which means that researchers' needs may not always be their top priority (con).

Another con is that in the Kudos model, promotion of publishers' content becomes a responsibility of the authors, rather than publishers' marketing teams. That said, your promotion efforts also help you, and Kudos provides a solid framework to guide you–a definite pro.

Homework

You may have noticed the number of big fat "X"s that I currently have on my Kudos Author Dashboard:



That's Kudos' way of telling me what promotion and outreach steps remain for my papers.

Your homework is to get at least three of your papers that you think might garner the most public interest onto Kudos, and to turn most of your "X"s into check marks. If you don't yet have a Twitter or use your Facebook account professionally, that's fine–just be sure to share your paper via email and blog about it. You're also welcome to share a Kudos link to one or more of your papers in the comments below.

As for Twitter and using Facebook professionally–those are your two next challenges.

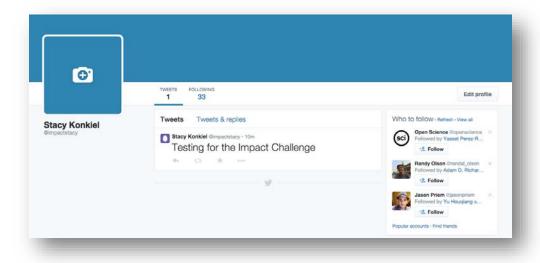
Day 9: find your community on Twitter

The next two days of the Impact Challenge will cover the biggest social media platforms on the planet: Twitter and Facebook.

Twitter is a microblogging site with 560 million active users, and more than 1 in 40 researchers are reportedly active on the site.

Scientists who use Twitter tend to be effusive in their praise: Twitter helps them stay on top of news in their field, find new publications, get speaking and publishing opportunities, communicate their research directly to the public, andperhaps most importantly–find a sense of community. In fact, among researchers who use social media in a professional context, 83% declared Twitter to be the most useful tool they use.

Today, we'll explore Twitter's usefulness for *you*. We'll get you onto the site, engaging others, finding the best sources of information in your field, and measuring the diffusion of your research among other researchers and the public.



Sign up

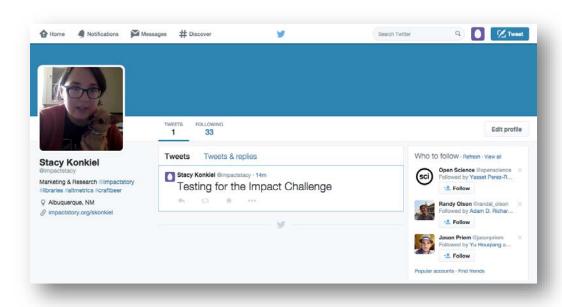
Creating a Twitter account is dead simple: logon to Twitter.com and sign up for an account.

On the next screen, you'll be prompted by Twitter to choose a handle-make it similar to your blog handle or your name, so your professional "brand" matches across platforms.

Complete the rest of the setup steps–find other users to follow and connect your email account to import other contacts–then head to your email to confirm your account.

All done? Now it's time to do the important stuff.

Personalize your account



First, add a photo to your "avatar" by clicking the blue camera icon in the upper left-hand corner, next to your name. Make it simple by adding the same photo that you used for LinkedIn or your website; it's easy change if you want to add another photo in the future.

Next, add a short bio. This is your chance to explain who you are in 160 characters or less. LSE Impact Blog <u>recommends</u> stating your experience and research interests, university or organizational affiliation, and a link to your blog. We also recommend adding a few hashtags (more on those in a moment) that can connect you to other users with similar interests across the platform. For example, I've added "#libraries #altmetrics #craftbeer" to my bio.

To add your bio, click on your username beside your avatar and on your profile page, click the "Edit Profile" button the right-hand side of your profile. There, you can add your bio and a link to your blog or website.

Got your basic account set up? Now it's time to start engaging with other scientists and the public.

Find people to follow

Twitter users share research articles, news, and tidbits about their lives on a daily basis. Your next step is to find users who share your interests and to "follow" them to start receiving their updates.

Twitter tries to make it as easy as possible for you to find other people to follow via the "Who to Follow" panel on the right-hand side of your profile, seen above. Their recommendations are usually either spot on (you can see above they've suggested OpenScience for me) or completely off the mark (they suggested WomensHealthMag to me based only on the fact that I'm female and that I selected "Health" as one of my interests upon signing up—under the mistaken assumption that "Health" = "Healthcare"). The more people you follow, though, the better their system gets at finding you new suggestions. Click on the "View all" link in the "Who to follow" panel to get a long list of suggested users.

Another great way to find people to follow is to search Twitter for particular interests. From any page on Twitter, type a keyword into the Search box at the upper right-hand corner of the page. On the results page, click "People" in the left-hand navigation bar to narrow the results to Twitter users who match your interest.

You can see here that I've searched for the term "bioinformatics" and narrowed the results to include Twitter users who match that term:



Read through the search results, keeping an eye out for familiar names and interesting bios. When you find a user you want updates from, click the "Follow" button to the right of their bio. Now, when you're on your homepage you'll see their recent updates:



There are several other good ways to find people to follow:

- Take a look at who others are following (on their profile, click "Following") and follow them,
- Find curated Twitter Lists on the profiles of those you follow, like these lists for <u>Scientists</u> and <u>STEM Academics</u> (click "Lists" on their profile pages, then scan the lists they've created to find ones relevant to your area of research), and
- Watch the updates on your Twitter homepage for unfamiliar names—chances are that someone has "retweeted" (shared someone else's update with their audience) a user that you'd be interested in getting updates from.

Try to follow at least twenty colleagues and organizations in your field to begin with, and take some time to read through each user's "timeline" (updates on their profile page) to learn more about them and their interests. You're going to start chatting with your colleagues in our next step.

Making connections on Twitter

Now we get into the meat of the challenge: making connections with others in your field.

One of the things that makes Twitter so great is that it is a no-pressure forum to spark conversations with your colleagues about a variety of topics, including but not limited to your shared area of study. Twitter also helps you find members of the public who are interested in your area of study.

Researchers who participated in <u>a recent study of academics' use of social</u> <u>media</u> reportedly appreciate Twitter because:

- 'Love the ability to chat to colleagues on Twitter, better than seeing each other just once a year at conferences and actually I have "met" people on Twitter before meeting them IRL at conference.'
- 'My focus is science outreach to general audiences. These formats [Facebook, Twitter, Storify] are easy to use and my audiences are there. It helps me disseminate information about science, science news and the process of science to broader audiences.'
- 'Twitter allows me to make connections to folks that I would not otherwise have journalists, policy professionals.'

You're going to engage with others by tweeting at them—writing short messages that either respond to one of their updates, ask questions, or share information with them. Let's talk now about what makes for good "tweeting."

Basics of composing a tweet

Tweets are the 140 character messages that users compose to update others on a variety of things: their opinions on a study, recent news, a thought-provoking blog post, and so on. You can write anything in your updates, and attach photos and location information, too.

Some things you might want to share with others include:

- Recent papers in your field (both papers you've written and others' articles)
- News and blog posts relevant to your discipline (science policy, funding announcements, articles from Nature News, New Scientist, the Impactstory blog, and your other favorite sources of information)
- Your opinion on developments in your field, others' research, and so on (don't be afraid to (respectfully) rock the boat)
- A funny thing that happened in your lab, at a conference, or in the classroom
- Happenings from your personal life (are you enjoying your vacation? Did you meet a wallaby for the first time in your life? Are you proud of your most recent 5k-race time?)

No matter what you tweet about, there are some basic things you can do to make your tweets more interesting to others (and thus more likely to be shared via a retweet):

• <u>Use hashtags</u> (a word or phrase that follows the "#" sign, like "#scicomm" or "#tenure")

- Attach a photo to your tweet (when composing a tweet, click the "Add photo" camera icon and upload a picture from your computer),
- Consider following the <u>5-3-2 rule</u>: social media experts recommend that for every 10 updates you post, 5 should be content from others that are relevant to your followers, 3 should be professional content, and 2 should be personal updates

When in doubt, just remember to keep it professional and you can't really go wrong.

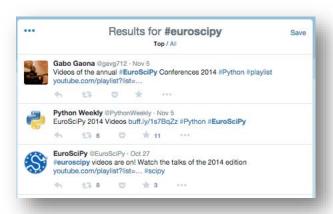
Tweeting at conferences

Now that you're tweeting, let's explore some of the benefits (and drawbacks) to tweeting at conferences.

Some academics swear by tweeting at conferences, because it provides an easy way to learn new things and meet new people by following and participating in conversations. As Bik & Goldstein explain,

Tweeting from conferences (discussing cutting-edge research developments, linking to journal articles or lab websites, e.g., ...) can introduce other scientists to valuable content, and consequently provide networking opportunities for users who actively post during meetings...Journalists and scientists following a conference tweet stream may be additionally introduced to new groups of researchers (particularly early-career scientists or those scientists who are new to Twitter) with relevant and related interests; conference tweeting can thus serve to enhance in-person networking opportunities by expanding these activities to online spheres.

Further, Jonathan Lawson <u>points out</u> that it allows students and early career researchers, in particular, to participate in a "backchannel" that's not dominated by the most established researchers, like the conferences themselves sometimes are.



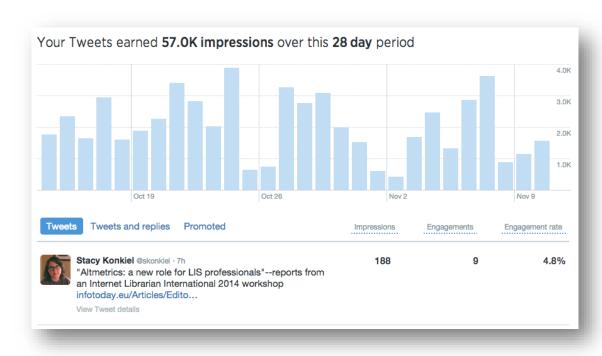
The next time you're attending a conference, find out what the meeting's hashtag is, and then search for and follow it to "listen in" on the conversation. (We searched for and followed tweets for #EuroSciPy, at right.) A popular way to follow conference hashtags is TweetChat, which filters out the non-conference tweets in your timeline, making conference-related tweets easier to follow.

And when you're ready to participate, you can add your voice by writing tweets that include the conference hashtag. When you're listening to a talk, summarize the main points for your followers, add your own commentary to the speaker's, and share related papers and websites. Just make sure you have the presenters' permission to tweet about their talk; some would prefer to keep their findings off the Internet until they have published on them.

You can also tweet using the conference hashtag to organize informal "tweetups", which can help build relationships and ward off boredom in unfamiliar cities ("Invigorated after Stodden's great keynote! Anyone up for grabbing a coffee before the reception to talk about it? #meeting2014").

For more "how to's" on conference tweeting, check out SouthernFriedScience's primer on tweeting at conferences.

Measuring your success



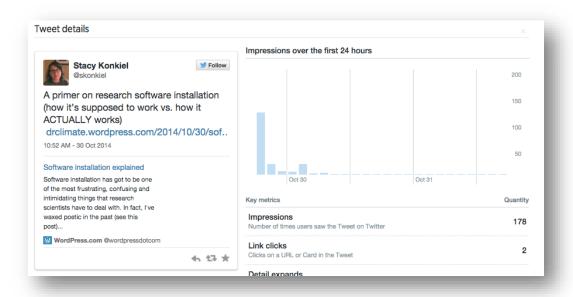
Twitter's new <u>Analytics dashboard</u> can help you measure the success of your outreach efforts.

Logon to Twitter Analytics and review your latest tweets that share links to your blog or your papers. On the dashboard view (pictured above), you'll see all of your tweets and a summary of your impressions and engagements.

The number of impressions equals the number of times your tweets appeared on someone's timelines. The number of engagements are the number of times your tweets have been retweeted, clicked through, or clicked on to learn more information about what you shared. They help you measure the amount of exposure you're receiving and others' interest in what you're tweeting, respectively.

The dashboard view is good at summarizing your impressions and engagements over various time periods. The default view is for the past 28 days, but you can click the calendar button in the upper right hand corner to select a date range of your choosing–useful if you want to see what effect tweeting at a conference had upon the amount of exposure you're getting, for example.

To see the drill-down engagement metrics for a specific tweet, click on the tweet. You'll see something like this:



In addition to simple engagement and impression metrics, LSE Impact Blog also <u>recommends recording the following</u>:

At the end of each month, Twitter can be used as a painless metric to assess how your tweeting is working for you and your project. Showing the growth in your followers and the number of people who read your research blog can also be helpful for funding applications. You could make short notes on the following:

- The number of followers you have
- The names of those who could be useful for future collaboration

- Invitations to write blog posts or speak at events, which have come via Twitter
 - Number of hits to your own blog posts via Twitter

Over time, you can build upon what you've learned from your Twitter metrics, tweeting more content that your followers will love, in a manner that will engage them the most.

Limitations

Twitter is, like many of the other platforms we've covered so far, a for-profit company. Though it's technically free to use, you pay for your account by allowing Twitter show ads in your timeline and access and sell your personal data to other companies.

Twitter has also recently announced plans to experiment with users' timelines, meaning that the uncensored, time-based updates you see on your home screen <u>could soon be replaced with updates selected by an algorithm</u>. That's something that Facebook currently does, and it <u>led to a near blackout on updates</u> for its users about one of the biggest news items of the year in the US: <u>the Ferguson protests</u>.

What could it mean for you? Well, if Twitter's future algorithms inadvertently decide that your tweets about H1N1 studies or field research or science funding aren't compelling to your users, it could remove them from others' homepages, killing potential conversations and connections.

Homework

For today's homework, you're going to find other researchers to engage and begin tweeting in earnest.

We recommend following 20 people to begin with, adding a few each day using the techniques described above (keyword searches, Twitter lists, and following researchers that your colleagues are following). Aim to follow at least 100 people by the end of the month.

In the next few days, as you start to get a few followers, take some time to learn more about them. Using the Twitter Analytics "Followers" dashboard, check out their interests, what countries your followers are tweeting from, and who else they're following—this can be a great source of new people to follow!

Finally, commit to tweeting at least 20 times over the next week. It will help populate your timeline, which will make others more likely to follow you. Share at least one of your own blog posts, one of your articles, and engage someone else in conversation.

If tweeting that often seems like a lot–don't worry! The day after next, we'll show you how to automate your social media updates using tools like Buffer and Tweetdeck. But first, we'll cover whether using Facebook in a professional context is right for you.

Day 10: Explore using Facebook in a professional context

Facebook is the social network that needs no introduction: it's got 1.3 billion users, and chances are most everyone you know is on it. Yet <u>over 50% of scientists</u> <u>say</u> they won't use it professionally.

On the surface, Facebook doesn't seem good for academia because it doesn't make sense to promote our work to our friends and family, or to blur the boundaries between our personal and professional lives.

But Facebook networks are as good as you make them, and Facebook allows us to make more personal connections to colleagues than academic social networking sites do. And for those who research topics that are the subject of public discussion–for example, stem cell research, climate change, or Ebola–Facebook can be a good way to share your research with audiences outside the Ivory Tower.

In today's challenge, we're going to take a "pros and cons" approach to exploring how Facebook might be useful to your career.

Reasons to use Facebook professionally

Many of us are on Facebook, and <u>plenty of us do "friend" our colleagues on</u> the site, even if we're not on Facebook primarily for professional reasons.

Scientists who do use Facebook for professional reasons tend to use it to promote their work, and as an informal way to network with other scientists.

Using Facebook to promote your publications, news, and awards



Consider sharing a link to one of your articles, a bit of news, or an award announcement the next time you log on to Facebook. One advantage to sharing articles in particular is that Facebook-based sharing and discussion has been <u>linked</u> to increased readership.

In a <u>recent Nature survey</u>, 15% of scientists that are regular Facebook users promote their recent publications on the site, and over 20% use it to post work-related content. And in <u>a separate study</u>, one researcher opined, "'I find that blogging/Facebook can be a very good way to make one's research more widely known to other scientists, the public and, very importantly, students (both to inform them and to recruit!)."

Who's most likely to share their work on the site? Well, the most often shared papers on Facebook tend to be those in the biomedical and health sciences, but

there's not yet research on the extent to which these papers were shared by the authors themselves.

Here are some tips for sharing your research on Facebook:

- Ideal times to post are <u>reportedly</u> after the workday is over (5 pm 1 am), when your friends have more time to click on the links you post.
- Include a photo, figure, or video-<u>visual content gets more "likes" and shares</u> on Facebook than plaintext and links alone do. And more shares means more potential readers for your article.
- If you didn't publish in an Open Access journal, link to an Open Access version of your article hosted on Figshare, Impactstory, etc., so others without access to the journal you've published in can read it.
- Keep your post's introductory text to <u>40 characters or less</u>-more people will "like" and comment upon your post, and that means your post will appear more often in others' timelines, increasing your potential readers.
- If you're sharing research that might be of public interest, set your post to "Public" (more information on how to do so in today's Homework, below) and use hashtags related to the subject of your study, so people browsing news on the subject can more easily find your post. Here's an example of news articles and updates discovered by the "#Ebola" hashtag.

Using Facebook to expand your network

In researching this chapter, I was surprised to find that some researchers use Facebook to network. But the Tanya Golash-Boza <u>recommends</u> doing just that:

"Facebook is also a networking tool, particularly for taking advantage of "weak ties." Recently, I wanted to meet the author of a successful book to ask her some questions about publishing. I looked her up on Facebook and discovered that we had two friends in common. I emailed one of them and asked for an introduction. Two days later, we were in direct email contact. As another example, in the past year, I have several received lecture invitations from Facebook friends. My constant virtual presence in their lives likely increased the likelihood they would invite me to speak."

The informal, passive route to networking worked in Golash-Boza's favor, but note that she didn't "friend" or message someone she didn't know in order to make a connection–she leveraged shared ties instead (something you practiced during our LinkedIn challenge). Some researchers are very against using Facebook in a professional manner, so tread carefully.

Reasons not to use Facebook professionally

Facebook censors your newsfeed

As we saw from <u>Facebook's recent suppression of Ferguson-related news in the US</u>, Facebook's algorithms might decide that your updates aren't worth sharing with your network. So, why share your research or your views on a platform that might hit the mute button on you?

Facebook has privacy problems

Facebook is a for-profit corporation. They make money by selling your personal data to advertisers (in addition to putting advertisements onto your Facebook profile and allowing brands to use your "likes" in their advertisements). They also have run afoul of privacy advocates by constantly changing the default privacy settings for profiles, opening up new and established users alike to unwanted public exposure.

If you do choose to use Facebook in a professional manner, be aware of the privacy issues and the steps you can take to mitigate them.

Your network is only as "professional" as you make it

You might use Facebook only for personal updates, sharing photos of your children or what you made for dinner last night. Sure, you can change your Facebook privacy settings to hide unprofessional content from colleagues. But doing that for each new friend you add can be a bothersome process. Some prefer to not friend colleagues at all, for that very reason.

Homework

Is Facebook right for you, professionally speaking? Take some time to think on the arguments presented above and decide for yourself whether you want to use Facebook to network with other scientists, share your publications, or to facilitate your research.

If you decide you want to use Facebook in a professional context, here's how to make sure it's up to snuff:

- <u>Create a "list"</u> for everyone you'd consider a professional contact, and remember to add future professional contacts to that list, as you become Facebook friends.
- Edit your privacy settings so you're discoverable (click the privacy settings padlock in the upper-right of your profile, click "Who can contact me?" and select "Everyone" under "Who can send me friend requests?")
- Further edit your privacy settings so new updates are not shared with your professional contacts by default—this can keep you from accidentally

sharing something inappropriate with the wrong audience. (Privacy settings > "Who can see my stuff?" > "Who can see my future posts?", select the group(s) you want to share all of your posts with)

• Whenever you share something that's of professional interest, be sure to share it with both your work colleagues and your other "friends" on the site. Consider even making it visible to the public. (On the status update box, click the audience button to the left of the "Post" button and choose the lists you want to share that update with.)

In tomorrow's challenge, we'll tackle social media automation—making it simple and quick for you to update your Twitter, Facebook, and LinkedIn accounts from a single interface.

Day 11: Social media automation for academics

You've now got seven social media accounts, including your blog. How can you possibly find time to manage all these accounts, given the time demands of the average academic?

Today, we're going to talk about how you can use social media automation tools like Buffer and IFTTT to manage these accounts in a more efficient way.

Below, we'll introduce you to how social media automation works, the best automation tools, and rules to follow for success.

What is social media automation?

When you want to share a new blog post or article link on social media, you can save time by using a single tool to post to Twitter, Facebook, and LinkedIn all at once. These tools will allow you to compose one message and post it to all your connected social media accounts with the click of a button or whenever a "trigger" is tripped. That's social media automation, and it's going to save you a ton of time.

Many social media automation tools can also be used to schedule posts in advance, so you can plan ahead to share a lot of content over the course of a day or week, rather than all at once.

Cyborgs vs. robots: your best options for automation

There are two types of social media automation tools:

Cyborgs

First are composing and sharing platforms, which we'll call "cyborgs" because they require some human input to automate future actions. Buffer and Hootsuite are in this category (we'll talk about both of these below).

In general, here's how cyborg tools work: you log on to the platform, compose a message to share, select the social media accounts you want to share the message on, and then schedule the message to post at a later time. Cyborgs are more hands-on, but they allow for superior control of messaging and timing.

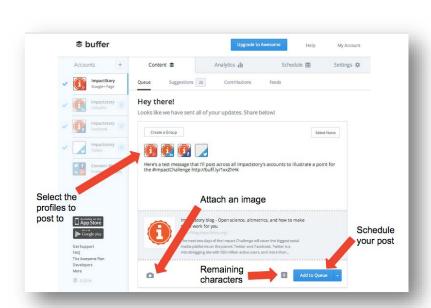
Robots

Your other option is full-blown automators, which we'll call "robots" due to the fact that they automate posting not based on human input but instead based on whether or not certain actions have occurred on the platforms they're connected to. IFTTT is in this category (again, more on IFTTT below).

When using a robot tool, you first define and set up actions you want to automate-say, "If I post a new blog post, then I'll share a link and the title of the post automatically on Twitter and Facebook." Then, whenever you complete that action,

the robot will do its work, immediately automating posts across various social media sites. In general, robots' big drawback is that you don't have much control over what's automatically posted and when, but they do save you time and effort by not requiring human intervention in order to work.

All of the tools we'll cover below tend to post to Facebook, Twitter, and LinkedIn out-of-the-box. All also have a flaw: they don't let you automate posts to or from ResearchGate, Academia.edu, or Google Scholar. Below, we'll introduce some workarounds that address this problem. But first, let's check out the most popular automation tools one by one.

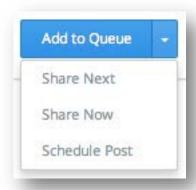


Buffer

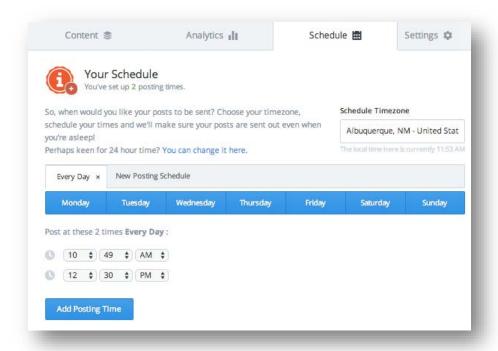
Buffer is a popular, browser-based, "cyborg" social media automation platform. On the free tier of the service, you can connect and post to your Twitter, LinkedIn, and Facebook accounts from a single update box (seen above).

To get started, sign up for an account and connect the social media accounts you want to post to. On the Content tab, you'll see a blank update box. This is where you'll compose your message.

First, select the networks you want to post to; then, compose your message (a "remaining character" limits appear to the left of the "Add to queue" button), add a link, and add a photo (click the camera icon on the bottom left of the update box, and Buffer will guide you through selecting and adding a photo to the post).



When you've finished composing your message, you can either add the post to your queue to be shared at a time that Buffer selects, share the post immediately, or schedule the post to appear at a time that you specify.



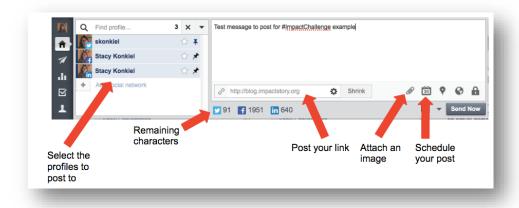
You can also customize the times at which Buffer will share items in your Queue. Click on the Schedule tab, select the days of the week you want Buffer to share content, and then add the times of day (and night) you want Buffer to share content.

Hootsuite

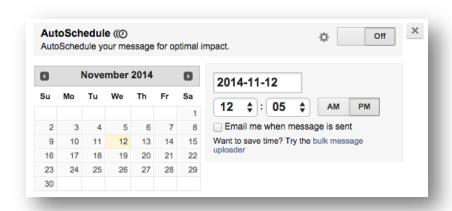


Hootsuite is another popular "cyborg" social media automation platform. You can both schedule posts on the service and monitor interactions across your profiles via its Stream interface, pictured above. We'll focus on Hootsuite's post automation features below.

To get started, sign up for a Hootsuite account and connect up to three of your social media profiles for free (perfect if you're just connecting your Twitter, LinkedIn, and Facebook accounts).



To compose a message, hover over the "Send to" box at the top left of your screen. The box will automatically expand to show you the full composition and posting options.

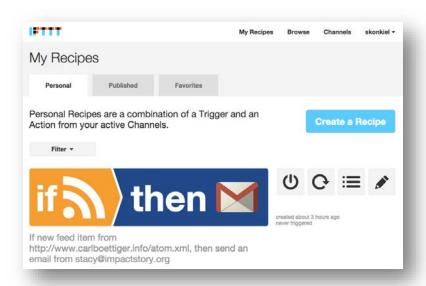


When you've finished composing your message, you can choose to "Send now" or click the calendar icon to schedule your post for the future ("Schedule" menu seen at right).

If you choose to schedule ahead, note that you can either specify a time and date for your post, or allow the post to be added to the AutoSchedule. AutoSchedule works like the Buffer Queue: it will post your message at predetermined time and dates that you can adjust by clicking the gear icon on the AutoSchedule box of the "Schedule" menu.

OK, we've covered your options for automating part of your social media routine with cyborgs. Let's talk about what robots can do for you. ☺

IFTTT

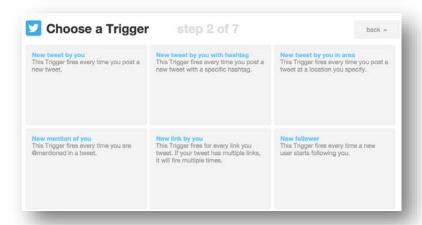


IFTTT ("If this, then that") is a powerful "robot" automation platform. Here's how it works: you create a Recipe, select the Trigger, and define an Action you want to automatically happen once that Trigger is tripped. In the example pictured above, I've told IFTTT that anytime a new post appears in Carl Boettiger's blog's RSS stream (Trigger), to send me an email (Action).

You can <u>reuse others' Recipes</u> that will post to <u>Twitter</u>, <u>Facebook</u>, and <u>LinkedIn</u> anytime you've written a new blog post; <u>cross-post from one social</u> <u>network to another</u>, so your LinkedIn posts automatically appear on Twitter and Facebook and vice versa; <u>tweet when you've created a GitHub repository</u>; and so on.

To create your own Recipes, sign up for IFTTT, click "My Recipes" at the top of the page, and click "Create a Recipe".

Click "this" to define your Trigger. Search for your Trigger Channel—the platform that you want your data or updates to come from. Then, choose the Trigger—the event that will initiate the Action. For example, if I want to post to Facebook anytime I tweet a link on Twitter, my Trigger Channel is Twitter, my Trigger is "New link by you."



Define your Action next. Click "that" to search for your Action Channel–the platform where you want your data or updates to appear. Then, select the Action itself–the event that will happen when your Trigger occurs. You'll be prompted to define what text you want to appear in your Action, using "Ingredients" from the Trigger (click the Erlenmeyer flask icon to see what Ingredients are available).



Continuing with our above example, my Action Channel is Facebook, and my Action will be "Create a status message" on Facebook, and the text that will appear in the status message will be the "Text" Ingredient from my Twitter update.

Select the Ingredient; click "Add ingredient," click "Create Action," then click "Create Recipe" to set your automated Facebook posts into effect.

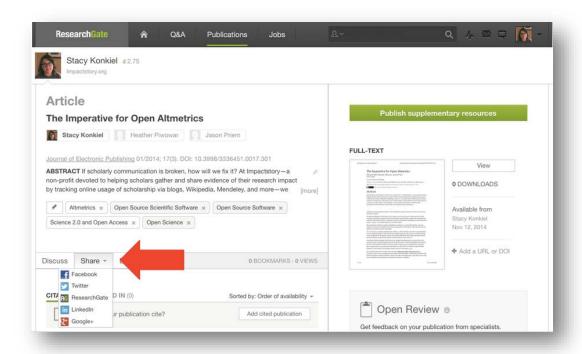
IFTTT offers more than 4000 Trigger and Action Channels, so the possibilities for automation are endless (and a bit overwhelming). Start out smallone or two Recipes, tops—and test how your audience receives them before automating more content sharing.

There aren't very many options for automating actions when new content is posted to ResearchGate, Academia.edu, or Google Scholar, as I mentioned above. That's due to the fact that none of these services have APIs. (If you think that should change–we do! –you can contact all three companies via web form to let them know. ResearchGate – Academia.edu – Google Scholar)

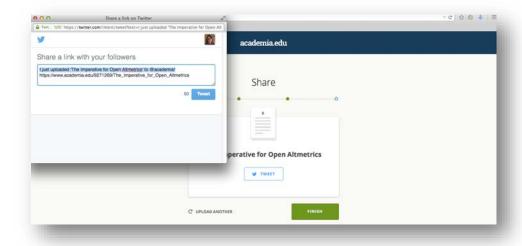
But there are workarounds: you can adapt or create Recipes that <u>post your most popular Academia.edu papers to Facebook</u> each week, <u>tweet when a new publication is added to your Google Scholar profile</u>, <u>update your LinkedIn profile whenever a new PubMed item from a saved search appears</u>, and so on.

Built-in automation tools

Though ResearchGate and Academia.edu aren't connectable to IFTTT, Buffer, or Hootsuite, you can use their built-in automation tools to post updates whenever you add a paper to either platform.



On ResearchGate, add a new publication and then head to the publication's page. Beneath the basic article information at the top of your profile, you'll see a button to "Share" your article on LinkedIn, Facebook, Twitter and other social networks. Click on the service you want to share your article to, and you'll be prompted to connect your profile and share the post.



On Academia.edu, add your Twitter handle on your profile homepage. Whenever you add a new paper, you'll be prompted to tweet about your upload.

Ingredients for successful social media automation

There are some general best practices you should abide by when automating your social media streams to optimize your efficiency and avoid inadvertently coming across as a spammer.

Pay attention to formatting and medium when posting across multiple platforms

Twitter, Facebook, and LinkedIn all have different limits on the lengths of content that can be shared in a single message. If you've got a message that is better communicated in a long post, try posting separate messages to Twitter and to Facebook and LinkedIn.

(Carefully) Schedule ahead

Consider automating your sharing for maximum reach and engagement. For example, some content gets more clicks, comments, and shares if <u>posted on the weekend or late at night</u>. You could schedule your posts to appear during those times, and also test other times to see if they're better for your audience. (More on that below.)

Automation can be great for sharing links to posters, slides, and comments while you're presenting at conferences. Postdoc Ross Mounce <u>used automation to announce that he was presenting</u> while he was on stage. Research scientist (and Impactstory Advisor) Keith Bradnam used automation to <u>tweet a pre-recorded video related to a presentation he was giving</u>, while he was giving it. You can also share blog posts that you've written in advance when you're on holiday, at busy times in the semester, and other times when you don't have time to post to social media.

If you do schedule ahead, be prepared to hit "pause" if major events happen. Otherwise, you can come across as insensitive. One example to learn from is Guy Kawasaki, who was criticized for keeping his social media automation running while the Boston Marathon bombing unfolded in 2013. Imagine if your automation made it appear as though you were trying to promote your work during a similar catastrophe!

Don't automate interactions

Some like to automatically tweet "Hello!" to new followers, or reply with a standard message to those who tweet at them. Both of these tactics detract from the reason you're on social media–to be social! Automated interactions can be a missed opportunity to learn about new followers or engage in discussions. Rather than automating interactions, save time by setting aside a half hour or so on a weekly basis to batch your replies.

Find the best times and content types to post for your audience

You'll want to post when your followers are most likely to read and interact with your posts and articles in the form of shares, retweets, clicks, comments, and so on. In general, there are ideal times and days to post to various social networks, but you should learn what's best for your specific audience.

The <u>Buffer blog</u> suggests that you consider the following when determining your social media automation schedule:

- 1. *In what time zones are the majority of your Twitter followers located?* (We recommend <u>Tweriod</u> to learn when your followers are online.)
- 2. When do your posts most often get clicked and shared? (Experiment with posting the same content on different days and at different times, then use built-in analytics tools for Facebook, Twitter and LinkedIn to see which date and time performs best.)
- 3. When are you around to respond to interactions with your content? (You know your own schedule best, so consider posting the content that's likely to be most discussion inducing when you're awake and around to respond to comments.)

Also experiment with what you're posting to learn what resonates more with your audience. Do more people read your articles when you've posted them to your blog and shared those links, rather than links to the articles themselves? Are your colleagues more likely to strike up a discussion if you post questions when sharing content? Again, share the same content multiple times but in different formats to learn more about what your followers are most likely to read, discuss, and share.

Homework

Your homework is to sign up for and test Buffer, Hootsuite, and IFTTT. Which one(s) work best for you and why?

Once you've figured out which one you prefer, create a plan for how using it will fit into your social media schedule, and how you'll test the popularity of posting times and types of content. Then, start automating!

Finally, read <u>this LSE Impact Blog post</u> on automating measurement and collection of your social media impact. You don't have to enact any of the suggestions from the post, but keep in mind that it's possible to backup all of your impacts to Google Drive. It may be useful for you down the road.

In tomorrow's Impact Challenge, we're switching gears: we'll explore platforms for sharing your research data.

Day 12: Make your data discoverable on a data repository

Data is second only to journal articles in terms of importance to science communication and publishing–it's the rocks from which diamonds are refined. And as a researcher, chances are you've got research data lying around on your hard drive or server.

Yet a lot of research data never sees the light of day. It used to be difficult to make data available to others, so researchers didn't unless required to by journals or funder mandates.

But new research has found that by putting your research data online, you'll become <u>up to 30% more highly cited</u> than if you kept your data hidden. Open research data also leads to <u>more replicable</u> studies, and is important to <u>the quality of science overall</u>. And advancements in technology have made it easier than ever to cheaply preserve and make your data Open Access.

In today's challenge, we'll share three easy ways to make your data available online: Open Repositories (ORs) like Figshare and Zenodo; Disciplinary Repositories (DRs) like Dryad and ICPSR; and Institutional Repositories (IRs).

Why post to a data repository?

A common way for many researchers to share their data over the years has been to submit it as a supplementary file to a journal article. But <u>publishers are</u> beginning to encourage scientists to deposit their data to repositories instead.

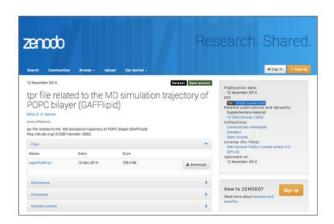
Publishers recognize that repositories of all persuasions are fantastic places to post your research data. That's because of two standard features for most repositories: high-quality preservation options and persistent identifiers for your data.

Preservation is a no-brainer-if you're entrusting your data to a repository, you want to know that it will be around until you decide to remove it.

Persistent identifiers are important because they allow your data to be found if the URL for your data changes, or it's transferred to another repository when your repository is shuttered, and so on. And with persistent identifiers like DOIs, it's easy to track citations, shares, mentions, and <u>other reuse and discussion of your data on</u> the Web.

There are several different types of repository that can host your data depending upon your institution and discipline. Let's dig into the different types of repositories and what each does best.

Figshare, Zenodo, and other open repositories





Open repositories like Figshare and Zenodo are repositories that anyone can use, regardless of institutional affiliation, to preserve any type of scholarly output they want. Here are specific advantages and disadvantages of two open repositories.

Pros

Figshare offers free deposits for open data up to 250 MB in file size. They issue persistent identifiers called DOIs for datasets. Users can "version" their data as simply as uploading updated files, and can easily embed Figshare datasets in other websites and blogs by copying and pasting a simple code. Other users can comment on datasets and download citation files to their reference managers for later use.

Figshare offers preservation backed by <u>CLOCKSS</u>, a highly trusted, community-governed archive used by repositories around the world. And you get basic information about the number of views and shares on social media your dataset has gotten to date.

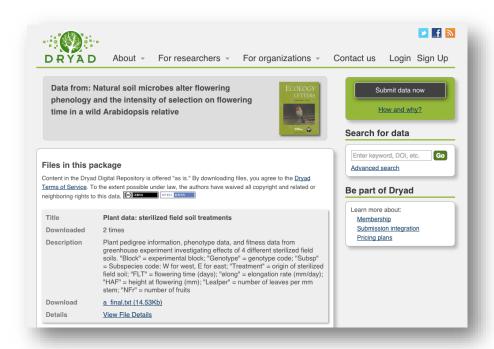
Zenodo also offers free data deposits and issues DOIs for your datasets. Much like Figshare, the non-profit makes citation information for datasets available in BibTeX, EndNote, and a variety of other library and reference manager formats. Users can add highly detailed metadata for their files—much more than Figshare currently allows—which can aid in discoverability. Other Zenodo users can comment on your files. And best of all, Zenodo makes it easy to sign up with your ORCID identifier or GitHub account. (If you don't have either yet, no worries! We're going to cover them in upcoming challenges.)

Both repositories have open APIs, making them very interoperable with other systems, and they are both user-friendly and fun to use.

Cons

For some, Figshare's funding model is a serious drawback; it's a for-profit company funded by Digital Science, whose parent company, Macmillian Publishing, is the keeper of the Nature Publishing Group empire.

Zenodo's preservation plan is less robust than Figshare's, and currently Zenodo can only host files 2 GB or less in size. Zenodo also lacks public page view and download statistics, meaning that you can't track the popularity or reuse of the data you submit to the archive.



Dryad, ICPSR, and other disciplinary repositories

Disciplinary repositories offer a way to share specialized research data with relevant communities. They offer many of the same features as IRs and ORs, but often with special features for disciplinary data.

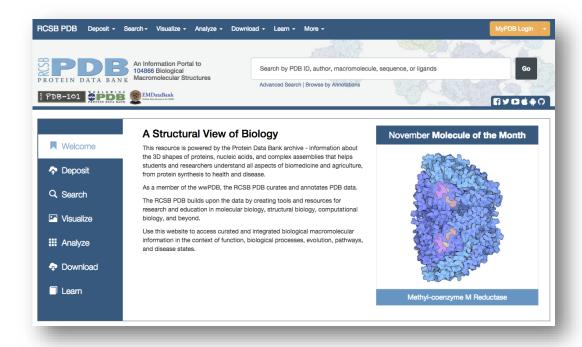
Pros

Disciplinary repositories like <u>KNB</u> and <u>ICPSR</u> often allow users to use subject-specific metadata schema that enhance discoverability. They are focal points for their disciplines, meaning that your data will more likely be seen by those understand it. <u>Repositories like those in the DataONE network are interoperable</u> with the software that you and other researchers already use to collect and analyze data, making it super easy to deposit data as part of your regular workflow. Depending on the repository, they might offer DOIs for data you've deposited.

Cons

Not all disciplinary repositories allow you to deposit large datasets. Some do not offer DOIs. And occasionally, grant-funded subject repositories that don't have sustainable business models shut down after their funding runs out.

Protein Data Bank, Genbank & other datatype-specific repositories



In some disciplines, entire repositories exist just for data of particular formats. Some examples include the RCSB's <u>Protein Data Bank</u> for 3D shapes of proteins, nucleic acids, and complex assemblies; <u>Genbank</u> for DNA sequences; and <u>EMDataBank</u> for 3D electron microscopy density maps, atomic models, and associated metadata.

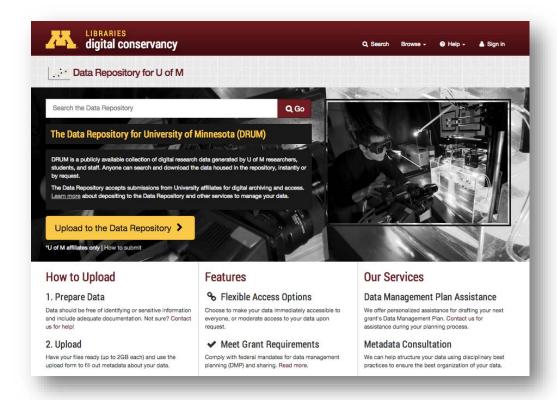
Pros

If there's a repository for the datatype you work with, your best bet is often to deposit it there. By virtue of being a hub for disciplinary data, datatype repositories are often frequented by others in your field that are doing similar research—an ideal audience of those you'd want to see and reuse your data. Datatype repositories often offer highly specific metadata and search options, making it easy for others in your field to find your data.

Cons

Datatype repositories cater to a very small subset of data formats, and can sometimes lack linkages to the publications and other datasets that give them much-needed context. Some datatype repositories are inactive, having been abandoned after their funding ran out, or because of a lack of use by other scientists, or for a host of other reasons. Be careful to check whether the datatype repository you're interested in using is regularly updated.

Institutional repositories



Institutional repositories are platforms where a university's faculty and graduate students can preserve their research data and other scholarly outputs.

Pros

Institutional repositories are often free to use, allow for the addition of both basic and complex data descriptions, and usually issue persistent identifiers called Handles that others can use to cite and find your data easily. (Currently, IRs that mint DOIs are harder to come by.) Some IRs even offer unlimited data storage, meaning you can store your terabytes worth of data for free.

And by virtue of being backed by a university and administered by librarians, they've got a degree of trust that money can't buy; many universities have been around for a hundred or more years, librarians have been stewards of the scholarly record since the times of the Ancient Library of Alexandria, and both will likely be around long after the Googles of the world have been shuttered.

Cons

What IRs offer in trust, they lack in flexibility and control. Many IRs have strict requirements for who can sign up and deposit research data, what data

formats they'll support over time, and if and how you can edit your files and descriptive information.

Other issues with many (but not all) institutional repositories include their lack of features for collaboration, inability to "version" datasets, unclear licensing advice for open data needs, and a lack of APIs for interoperability with other systems. Many also only use a very general metadata standard, Dublin Core, and don't support domain or datatype-specific metadata fields and controlled vocabularies.

Perhaps the biggest drawback? No one goes to IRs looking for data, so you're entirely reliant on search engines for discoverability.

Data repository limitations

In addition to some of the drawbacks addressed above, the biggest limitation to the idea of making your data openly available is that not everyone can do it! If you work with sensitive data-<u>defined by ANDS</u> as "data that can be used to identify an individual, species, object, or location that introduces a risk of discrimination, harm, or unwanted attention"-you often can't share your data openly online.

That said, some repositories like ICPSR do index sensitive data, making it available to registered users. The availability of a metadata record alone can sometimes be enough to cite sensitive data, and so it's possible that you can still get cited, even if your data isn't open access. But we don't recommend keeping your data behind a login or other barrier if you don't have to.

Unsure if your data is "sensitive"? Check out <u>Purdue University Library's</u> guide on sensitive data, which can help you identify it and all applicable laws and regulations.

Homework

For today's homework, we're going to get your data online.

Register for an Open Repository

Explore data hosted on Figshare and Zenodo, then choose and sign up for an account on the platform of your choice. Deposit at least one data set to the service. It can be a copy of supplementary data you've posted alongside a journal article, raw data, or data from a dead-end project you've never published.

Be sure to add as much descriptive information as possible during the deposit. It'll make your data useful to those who look at your data, and also more "Googleable"-both repositories are well-indexed by search engines.

Choose a disciplinary repository

There are thousands of repositories where you could possibly deposit data from your field. Ask a trusted colleague for a recommendation or check out <u>the Re3Data guide</u> for a comprehensive list of subject repositories.

Once you've found one that suits your needs, register for it and deposit a dataset or two.

Explore relevant datatype-specific repositories

Ask a colleague or your advisor what the best repositories are for the data formats you tend to create. Sign up for each that you think will be the most relevant to your work, explore some of the other datasets on the site, and deposit a dataset or two of your own. And just like you did for the previous two deposits, make sure you add great descriptive information, which can help others understand your data.

Got an idea of what repository you like best? Great! Next time you've got a dataset that you want to share with the world, do it!

Tomorrow, we'll explore GitHub for sharing your scientific code and data.

Search GitHub Explore Gist Blog Help 📓 skonkiel 🕂 🚨 🌣 🕞 ∯ Follow ¶0 -+ Contributions Repositories a Public activity Popular repositories Repositories contributed to midIR sensitivity iluastro/OKGalileo 0 4 4 ★ pynbody/pynbody astroScanr 1★ 29 🛊 N-body and hydro analysis tools for pyth. Y astropy zooniverse/Milky-Way-Project 0 * 1食 Sarah Kendrew milkywayproject triggering 0 # skendrew Y minimal-mistakes University of Oxford A responsive Jekyll theme with clean typ., Oxford sarahaskendrew@gmail.com Public contributions (S) Joined on Mar 18, 2010 23 8 Less More Year of contributions Longest streak Current streak 0 days 27 total 2 days

Day 13: Share your research software on GitHub

If you write code for research, you're missing out if you're not on GitHub. GitHub is a collaborative coding website that hosts over 1 million open source projects, is <u>increasingly being used by scientists who code</u>, and has <u>even hired a science guru to make the platform work better for researchers</u>.

GitHub makes coding research software easier with its <u>excellent version</u> <u>control</u>, <u>solid tools for collaboration</u>, and <u>real-time feedback and reviews</u>. Even better, GitHub can tell you much more about the <u>interest in</u>, <u>use</u> and <u>adaptation</u> of your open source software and code than simply posting it to your website can.

In this guide, we'll give you a very high-level overview of how GitHub works, and some of the benefits you can expect to see if you share your code on GitHub.

Learn the basics Git and GitHub

GitHub is built on top of the distributed version control system, **Git**. Git allows multiple users to edit a single piece of software code at once. Simply put, it tracks edits and allows each to be applied without overwriting the other edits.

GitHub is an open source software-hosting platform that takes a lot of the pain out of using Git. Users create profiles on the site, download software to their machines, and start coding. If you're using a Mac, GitHub's desktop software can do

most of the heavy lifting for you, making it relatively easy to push your local code to the cloud and vice versa.

Individual software projects are hosted in GitHub "repositories". Later on in this challenge, you'll create repositories for your code.

When you're ready to collaborate, you can search others' repositories, "fork" their code for your reuse, and suggest changes via "pull requests." You can also invite others to collaborate on your code–more on that below.

Full-on Git & GitHub tutorials are beyond the scope of this chapter, but I encourage you to check out Lauren Orsini's excellent GitHub primer (Part 1 & Part 2) to begin learning the basics of Git.

Set up a GitHub profile

Once you've got your local software setup, it's time to <u>create a GitHub profile</u>. This is the centralized place where all of your code and contributions will be collected.

Here are some tips for creating a profile that will make your academic code shine:

- Choose a photo following the recommendations we discussed in <u>our LinkedIn challenge</u>
- Include a link to <u>your professional website</u>, so others can easily learn more about your research
- In the "Company" field, add your area of research or title alongside your institution name, so it reads "Marine Biologist at UC Santa Barbara" rather than just "UC Santa Barbara"
- Add your best code to well-documented individual repositories (more on how to do that in a moment)

By following all of these tips, you'll have a profile that's much more searchable on GitHub. Plus, a complete profile that showcases your authority will make you more appealing to potential collaborators.

Create repositories for your code

Once your profile is complete, it's time to get your code online. Individual projects go into GitHub repositories. And repository-based reuse and interest metrics can help us learn about how our software is being used by others. Here are some tips for creating a great repository.

Choose a short but descriptive title for your repository: it will help with both memorability and SEO. Naming your repository after the software itself is a good choice.

Create a killer Readme file: you want your code to be reusable, don't you? Documentation is a huge boost to reusability, and a Readme file is the best place to keep your documentation. The Frontier Group <u>recommends including the following</u>:

- The name of the project
- The name and contact details of the client and any 3rd party vendors
- The names of the developers on the project
- A brief description of the project, you should include the answer to the age-old question "What problem is this project solving?"
- An outline of the technologies in the project. e.g.: Framework (Rails/iOS/Android/Gameboy Colour), programming language, database, ORM.
- Links to any related projects (e.g.: Is this a Rails API that has corresponding iOS and Android clients?)
- Links to online tools related to the application (e.g.: Links to the Basecamp project, a link to the dropbox where all the wireframes are stored, a link to the Pivotal Tracker project)

Consider also adding information about the grant that funded the development of this code, and links to any related publications. To increase your SEO, try to also include keywords that others who might be interested in your software might search for.



Choose an open license: In a separate License.md file, include a license that clearly explains what rights you'll allow others who want to reuse and adapt your code. There are strong feelings about open which open licenses are most appropriate, and pros and cons for each that are worth looking into, but we prefer relatively permissive licenses like the MIT license (in fact, that's the license Impactstory's code is under).

Add collaborators: Invite anyone who has contributed to developing the code to be a collaborator on your personal code. For code that's not yours but instead is part of the work an organization or institution does, you can also create an "organization" for code repositories. For example, Matt Jones belongs to the rOpenSci and DataONE organizations on GitHub, as we see on the left. For more information on adding others to

a GitHub organization, see this guide.

GitHub for sharing data

Some researchers like using GitHub for storing and working with numerical data. It has the advantage of being stored in a repository alongside the code that's used for analysis, making your research project into a single, neatly packaged reproducible object.

For some examples of how others use GitHub for data, check out <u>Carl</u> <u>Boettiger's R workflow</u>, <u>Caitlin Rivers' Ebola data archive</u>, and <u>OKFN's government</u> data archive.

Some drawbacks to using GitHub to store your data include its lack of solid preservation strategy and that it doesn't specialize in one kind of data like repositories like the Protein Data Bank do, making it difficult to find data to reuse.

Mint DOIs for your code

Now that your code (and possibly also your data) is online, let's make it easier to track its impacts.

A challenge for tracking the scholarly impact of research software is a lack of persistent identifiers that are available for code. That's why Mozilla Science, GitHub, Zenodo, and Figshare partnered to begin issuing DOIs for code repositories on GitHub, which are often included in citations in publications.

To learn how to create a DOI for your code, check out this guide to connecting Zenodo to a GitHub repository to mint a DOI.

Once you've gotten DOIs for your repositories, put them into each of your repositories' Readme files alongside a preferred citation. It'll make it easier for others to cite your code in their papers.

Sit back and watch the forks & stars roll in

Citations are far from the only type of impact you can start to accrue if your code is made openly available on GitHub. GitHub has some good metrics that can tell you how your code is being reused, commented upon, and so on-in real time. Some GitHub metrics to know about include:

- <u>Stars</u>: some GitHub users "star" repositories as a means of showing appreciation for your work; others use them as a bookmark, so they can find and revisit your code more easily.
- Forks: a "fork" is created when another user copies one of your repositories so they can explore and experiment without affecting your original code. It's a good signal of reuse.

• <u>Pull requests</u>: When a user wants to suggest changes to your code, they'll issue a pull request. The number of pull request and identities of contributors can be good indicators of how collaborative your work is and who your high-profile collaborators are.

Each of these metrics can tell a more nuanced story of the use of your code in your discipline than citations alone can.

Limitations

Despite its popularity in some circles, GitHub has notable limitations. The biggest is that learning Git can be too high a barrier for entry for some to overcome.

GitHub's <u>file size limitations</u> and <u>usability</u> are drawbacks for others. Moreover, the problems with GitHub's search function make it <u>difficult to search for code</u> or <u>rank by relevancy when searching code documentation</u>. A good workaround for this is to just use a regular search engine like Google.

And, finally, GitHub is a for-profit company. They <u>reserve the right</u> to delete your code and data at any time, for any reason, making the long-term storage of code a questionable proposition.

Homework

First things first: read these excellent tutorials [1] [2] [3] [4] and practice using Git and GitHub. Once you've got your footing, it's time to get your code online.

Deposit at least one of your best-known software projects or code snippets to GitHub repositories. Then, mint a DOI for it and add your preferred citation to the top of your Readme.md file.

Finally, get social! GitHub's major strength lies in its social networking features, so try a few Google searches to see if you can find and follow researchers in your field. Bonus points for exploring their repositories to see if there's any code you can borrow/fork for future projects.

Tomorrow, you'll have it a bit easier: we're going to get you onto Slideshare!

Day 14: Slideshare for conference talks

Your conference slides don't get a lot of love, do they? You tend to use them to present at conferences, then throw 'em in a virtual desk drawer and forget about them.

Yet slides are visual aids that help us tell important stories about our research. And they can be useful to those who weren't able to see your talk in person. So, why not share them?

In today's challenge, we're going to get your slide decks onto Slideshare so the world can see them.

Complete the Slideshare basics

Slideshare is a popular, free slide hosting service that many academics use to share their conference and classroom lecture slides.

First things first: visit Slideshare.net and click "signup" in the upper right corner. Next, you can choose to sign up with an email address or with your Facebook or LinkedIn profile.

Choose a handle for your profile that matches your name or your blog's handle, so it will be easy for others to recognize you across platform.

Next, create a professional profile. If you've created your Slideshare account using LinkedIn, some of your personal information from LinkedIn will already be imported. If not, here's how to edit your profile:

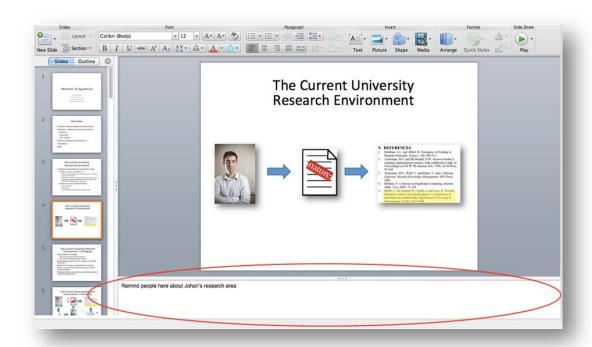
- 1. Hover over the person icon in the upper right corner; select "Account Settings" from the drop-down menu.
- 2. Select "Profile Details" from the left-hand navigation bar. Click "Personal Details."
- 3. On the "Personal Details" page, add a photo (the same one you used for your LinkedIn account is perfect), your name, and information about where you work and what drives your research. Link to your website and click "Save".
- 4. On the "Contact Details" page, add links to your Twitter, LinkedIn, and Facebook profiles. Click "Save".

Now, whenever anyone finds your slide decks on Slideshare, they'll be able to easily learn more about you and your research, and find you on other sites.

What to upload

You can upload your PowerPoint, PDF, Keynote, and OpenDocument slides. PowerPoint and PDF work the best, however; we've occasionally had problems uploading Keynote slides.

If you encounter errors uploading your Keynote or OpenDocument slides, a good workaround is to save your slides in PDF format and then upload them.



If you're like me, you often use the Notes portion of your PowerPoint slide deck to leave reminders to yourself to "cite So-and-so's 2003 paper here" or to "break down definitions here for beginners." **Beware:** others who download your slides can read these notes! Double-check your slides and their notes carefully before you upload a presentation to Slideshare.

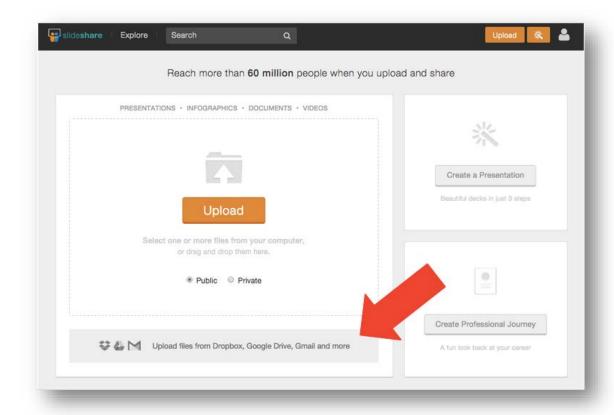
Make uploading a snap

Next, we're going to make it super simple for you to share your slides moving forward. To do that, we'll need to connect your Slideshare account to the cloud storage platforms that your slides tend to live, and set a default license for all the slides you share.

Connect to the cloud

If you're like me, you tend to create your slide decks on your desktop and then add them to Dropbox or Google Drive when they're ready to present. (That way, you don't have to fiddle with thumb drives when presenting.) Slideshare

connects to these cloud storage services, making it very easy to import your slide decks when they're ready to share.



To connect your accounts, click the "Upload" button in the upper right-hand corner of the screen. On the next screen, click the "Upload files from Dropbox..." tile in the lower-left corner of the screen.

In the dialog box that appears, choose the cloud service or email provider you want to connect to. Connect your account, and then connect any other accounts you might use in the future to store your files. When you're finished, exit from the dialog box and—that's it! Your accounts are connected from here on out, so it will be very easy to transfer files to Slideshare in the future.

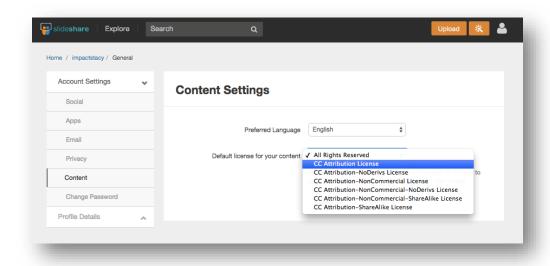
Set a default license

An intellectual property license applied to your slides gives others a clear idea of what they can and cannot reuse the slides for.

Slideshare allows you to either keep "All Rights Reserved" for your files or select a Creative Commons license. We recommend that you use a Creative Commons license if you're sharing research slides. Doing so will allow others to blog about your work, cite you on Wikipedia, and reuse and share your work in other ways that can increase your impacts.

To set a default license for your slides, hover over the person icon in the upper-right corner, choose "Account Settings," then select the "Content" tab from the left-hand navigation bar.

On the "Default License for your Content" drop-down menu, select the license you'd prefer. We recommend a CC-BY license, as it allows the most reuse and sharing of your content.



Got your default license selected and your cloud storage platforms connected? Now let's share some slides!

Get your slides online

Choose a slide deck that you're ready to share with the world. To get it onto Slideshare, click "Upload" in the upper right corner, and then find your file on your computer or cloud storage.

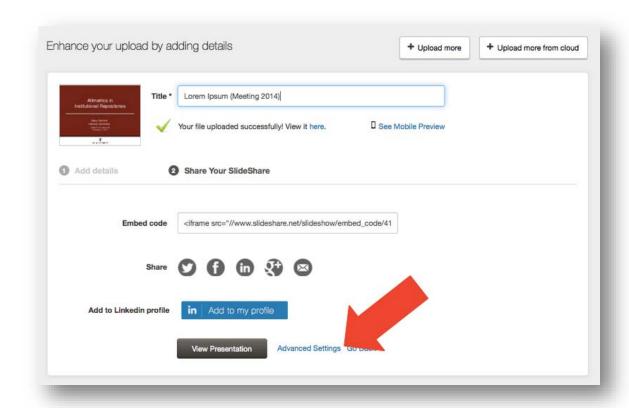
As your file begins to upload, you'll be prompted to describe your file. Here are some things to keep in mind:

- **Category:** Select the category most relevant to your talk. It's likely the categories aren't very useful to you; the most granular they get for science research is "Science". That's OK-we'll add better information in the following fields.
- **Title:** Keep it the same as the title of your talk, and feel free to add the conference name and date in parenthesis, so others can see in a glance if this presentation is the one they're looking for.
- **Description:** Include your talk's abstract in this field. You'll also want to preface your abstract with a sentence that explains when and where you gave this talk, and link to the talk's related publication (if applicable).

• **Tags:** List some keywords that others in your discipline might search for. Tags will help your slides' SEO, making them more discoverable online.

Once you've adequately described your slides, go ahead and finish your upload. You'll be prompted to share your newly uploaded slides on LinkedIn, Twitter, and other social networks. Do it!

Bonus: If you've got a video of your talk, you can add that, too! On your upload confirmation screen, click the "Advanced Settings" link.



On the next screen, click the "Edit YouTube video" tab, add your video's URL, then select where you want the video to appear in the slide deck. We suggest adding it after your title slide.

Share your slides smartly

Now that you know how to get your slides online, let's talk about all the ways you can get others' eyeballs on them.

Some strategies for sharing your slides include:

- Using the social share buttons after you've uploaded your slides to share them on LinkedIn, Twitter, and other social networks
 - <u>Autotweeting</u> your slides while you're giving talks at conferences

- Blog about your talk after the fact, and <u>embed your slides</u> in your blog post
- Connect Slideshare to LinkedIn and Impactstory, so your slides will be automatically imported and embedded in places where others might encounter your work (more on Impactstory in a later challenge)

Dig into your slides' impact statistics

Now that you've got slides online and are sharing them, you can track how often they've been viewed and, in some cases, how often others are reusing them.

On your slide deck's page, scroll down to find the "Statistics" tab under the description section, and then click on it. Here you'll find all the metrics related to others interest in your slides.

Some metrics you might accumulate include:

- **Views** on both Slideshare and other websites
- **Embeds**, which can tell you how many times and where others have shared your slides
- **Downloads,** which can tell you if others have liked your slides enough to save them to their computer
- **Comments**, which themselves can tell you what others think about your slides
 - **Likes**, which as you might guess can tell you if others like your work

You can choose to receive email updates for your slides' stats—we'll cover that in a future challenge.

Limitations

Slideshare's usability leaves a bit to be desired, and the amount of emails they send can border on spam. To fix the latter, go to "Account Settings" > "Email" and opt-out of any emails you don't want to receive.

Slideshare also shares a limitation with social networks like Twitter and LinkedIn–it's a for-profit company that sells your personal data and clutters your browser with ads. And due to its focus on sharing, the platform doesn't give much thought to a preservation guarantees. So, always make sure your slides are backed up elsewhere.

Homework

You've got two tasks for your homework: get slides from your most prominent talk online, and start thinking about how you'll share your slides for maximum visibility after future talks.

Next up: Open Access publishing to increase the impacts of your work!

Day 15: Publish Open Access for more citations



CC-BY IISC

Over the past few days, we've talked about ways you can "open up" your datasets, slide decks, and software. Now let's do the same for your publications!

Publishing in Open Access (OA) journals is a great way to make your work available for all to read, and it has the added advantage of getting you more <u>citations</u>, <u>views</u>, <u>Mendeley readers and Twitter mentions</u>. What's not to love about that?

In today's challenge, we'll discuss some advantages and drawbacks to publishing your work Open Access, and share tips on how to publish OA.

Open Access publishing: wins and fails

Open Access publishing has some great advantages to it, and also some drawbacks that are important to consider. Let's break down some of the arguments.

Wins

- **More citations:** Open Access journals can also get you more citations, as <u>numerous studies have shown</u>.
- **More readers**: A <u>2008 BMJ study</u> showed that "full text downloads were 89% higher, PDF downloads 42% higher, and unique visitors 23% higher for open access articles than for subscription access articles." These findings have been <u>confirmed</u> for <u>other disciplines</u>, <u>as well</u>. And a recent study by Euan Adie at Altmetric.com showed that <u>Mendeley readers were higher</u> for OA articles, too.

- **More altmetrics:** The <u>same Altmetric.com study</u> found that Open Access articles also receive more tweets than toll-access journals.
- More access for those who need it: there are plenty of people who might need access to your studies–scholars from <u>small institutions</u> and developing, <u>patient advocates</u>, <u>patients themselves</u>, and <u>citizen scientists</u>. Publishing Open Access will allow it.

Fails

- **Lack of prestige:** It's a sad fact that reviewers for tenure and promotion often judge the quality of articles by the journal of publication when skimming CVs. And unfamiliar titles in the publications list can <u>sometimes lead to some serious career consequences</u>. <u>Article-level metrics can be an answer to this problem, though</u>—a highly cited paper is still highly cited, no matter where it's published.
- **It can be expensive:** many Open Access journals charge publication fees that <u>cost anywhere from \$75 to \$4300</u>, making OA publishing a non-starter for underfunded researchers. Fee waivers are available, though–we'll talk more about those in a minute.
- Your colleagues might not see your paper: if you publish in anything but the top journals in your subject area, chances are that your colleagues won't be aware of your paper's existence. It's hard nowadays for your colleagues to follow all the new developments in your field, so if you choose to publish OA, it might take a little legwork on your part to get them to notice your article.

We think that the benefits outweigh the drawbacks, especially given the pace with which academia is changing to embrace Open Access. But it's understandable if you've got career concerns. Luckily, you can make your articles OA without having to publish in a lesser-known OA journal.

Which Open Access approach is best for you?

There's more than one way to be Open Access. In addition to the popularly-known "gold" OA route-publishing in an Open Access journal-you can also self-archive your traditionally published work ("green OA") or pay a fee to a traditional, subscription journal to make your paper open access ("hybrid OA"). Here's what you need to do for each.

Gold OA

Many Gold OA journals like *PLOS Biology* and *BMC Medicine* require that authors pay a publication fee or "article processing charge" upon acceptance for publication. Not all Gold OA journals require a fee however, and some publishers offer fee waivers for those who need financial assistance. With some

careful planning, you can also cover Gold OA publishing fees by writing the expected fees into a grant budget or by getting assistance from your university's Open Access fund. (More on both below.)

Hybrid OA

Some subscription journals will allow authors to pay a fee to make their paper Open Access, even if other papers in the journal are not. This practice is known as "Hybrid OA" publishing. Hybrid OA journals allow authors to both publish in a journal that is recognized by their peers, while also reaping the benefits of OA publishing. But such fees can be expensive for authors, and an uptake of 1-2% suggests that hybrid OA publishing isn't a popular option.

Green OA

Green Open Access is the practice of publishing an article as you normally would in a subscription journal, and later posting a copy of your article on your website or a repository. It's a popular option for those who don't want to pay Open Access fees, but it has a major drawback: embargo periods.

Often, publisher restrictions mean researchers have to wait a year or longer to make their work available via Green OA, leading to major delays in the dissemination of their work. The Sherpa/Romeo guide is a great way to discover what your journal's embargo policies are.

Open Access funds & fee waivers

If you decide to go the Gold or Hybrid OA routes but need some help meeting the publication fees, you've got several options.

University Open Access fund

Larger research universities sometimes have funds available for researchers who want to publish OA but can't afford to pay out of pocket. The fund is sometimes based in the library, and other times it is stewarded by the campus research administration office. Often, there are restrictions as to how much assistance a researcher can request per year. The Open Access Directory has compiled <u>a fairly comprehensive list of OA funds here</u>.

Grant budgets

If you're lucky enough to be a PI on a grant, you can often write in expected publication fees into your budget. (Or if you're working with a forward-thinking PI, you might ask them to foot the bill out of their grant funds.) Given that <u>more and more funding agencies require public access to the research they fund</u>, they're becoming increasingly amenable to covering such costs. Check with your campus grants administration office or your funding agency's program officer for more information.

Fee waivers

Some Gold OA publishers will waive their publication fees for authors who hail from developing countries or who can document financial hardship. Check with your publisher as to whether such waivers are available, and what the qualifications are for applying.

Homework

Today's homework is mostly planning for the future. Unless you've got an article in the hopper, waiting to be published, you'll do the following with future publications in mind.

Research Open Access journals in your field: two places to start your research include <u>Cofactor's Journal Selector tool</u> and <u>the Directory of Open Access Journals' listings</u>. Both lists were curated with quality in mind.

Find out what OA funding options and fee waivers exist for you: contact your local librarian to see if the an OA fund exists at your institution, and search the websites of the journals you selected in the previous step to learn about what fee waiver programs they offer, if any.

Discover your Green OA rights & make your older research available: look up the journals where your most important papers were published on Sherpa/Romeo. Do they give you the right to self-archive your paper? If so, archive a copy of at least 3 of your papers on your website, institutional repository, or Figshare. And decide if you'd prefer to go the Green OA route with future publications, too.

Day 16: Post your preprints

Today, we'll expand on <u>self-archiving your articles</u> to cover how you can make your article preprints available online.

"Publishing" your preprints has been <u>popular in disciplines like physics for a</u> <u>while</u>, and it's <u>starting to catch on in other fields</u>, too. It's easy to see why: publishing preprints gets your work out right away, while still letting you publish the formally peer-reviewed version later. That has some big advantages:

- You establish intellectual precedence for your ideas
- You can start accumulating citations right away
- You can get early feedback from colleagues
- It helps research in your field move more quickly

In today's challenge, we'll correct some common misconceptions about sharing preprints, and discuss your options for where to post them. Let's get down to it!

Preprints – facts vs. fiction

FACT: Posting preprints makes your research freely available to all

You can get the "prestige" of publishing with certain toll-access journals while still archiving your work in places where the public and other scholars can access it. That access means that others can cite your work before its been formally published, getting you more citations. (More on that in a moment.) More importantly, that access fulfills your duty to science and humankind: to advance knowledge for all.

FICTION: Journals won't publish your work if it's already been posted online

It's a common misconception that if you post your preprints online before they've been published, most journals won't allow you to publish it formally, citing "prior publication." As ecologist Ethan White points out,

The vast majority of publication outlets do not believe that preprints represent prior publication, and therefore the publication ethics of the broader field of academic publishing clearly allows this. In particular Science, Nature, PNAS, the Ecological Society of America, the Royal Society, Springer, and Elsevier all generally allow the posting of preprints.

And some publishers (<u>PLOS</u>, <u>PeerJ</u>, and <u>eLife</u>, among others) even encourage the posting of preprints! You can check <u>this list of preprint policies</u> or <u>Sherpa/Romeo</u> to find out what the policies are for your journal of choice. If you're still unsure, contact your journal's editors for more information.

FACT: Preprints can accumulate citations that traditional articles can't

A major advantage to preprints is the speed with which they can accumulate citations. Scientists <u>report getting citations</u> for preprints in articles that are <u>published before their articles are</u>, and <u>citing others ahead of their article's formal publication</u>. Would you prefer that others didn't cite your preprint, and waited for the final copy? That's as easy as adding a warning to the header of your article (as we see here and here and here and here).

FICTION: You'll get scooped

Some worry that if their results are online before publication, others will be able to scoop them by publishing a similar study. Yet, <u>researchers share their work all the time at conferences without similar worries</u>, and in fact having a digital footprint that proves you've established intellectual precedence can prevent scooping.

As paleontologist Mike Taylor <u>points out</u>, "I can't think of anyone who would be barefaced enough to scoop [something] that had already been published on ArXiv...If they did, the whole world would know unambiguously exactly what had happened."

FACT: Preprints can advance science much more rapidly than traditional publishing

By posting your preprints, others can <u>more quickly build upon your work</u>, accelerating science and discovery. After all, it can take years for papers to be published after their acceptance. And that can lead to situations like <u>Mike Taylor's</u>:

We wrote the bulk of the neck-anatomy paper back in 2008 — the year that we first submitted it to a journal. In the four years since then, all the observations and deductions that it contains have been unavailable to the world. And that is stupid.

Preprints will help you avoid four year (!) publication delays.

FACT: Preprints aren't rigorously peer reviewed

It's 100% true that most preprints aren't peer reviewed beyond a simple sanity check before going online for the world to see. It's possible that the lack of peer review means that incorrect results could get circulated, leading to confusion or misinformation down the line. (Of course, peer-reviewed work is also often retracted or modified after publication—no one's perfect;)) A great tool to manage the versions of a paper, including preprints, is CrossMark, which was invented to provide an easy-to-find breadcrumb trail that leads from the preprint to the peer-reviewed paper to any subsequent, corrected versions of the paper.

FACT: Feedback on your work, before you submit it

If you're posting your work to a disciplinary preprint server where your colleagues are likely to read it, you can benefit from your community's constructive feedback ahead of submitting your article for publication. As genomics researcher Nick Loman explains,

[I find very useful] the benefits of publishing to a self-selected audience who are genuinely interested in this subject, and actively wish to read and critique such papers out of professional curiosity, not just because they are lucky/unlucky enough to be selected as peer reviewers.

And even if your work is already in press, <u>you can get feedback on your soonto-be-published work immediately</u>, rather than months (or years) later when the paper is finally published.

Where to post preprints

Options abound for posting your preprints. Note that some of the following options are considered commercial repositories, and thus might not be eligible for use under some publishers' conditions.

Figshare

A popular, discipline-agnostic, commercial repository that's free to use and has a <u>CLOCKSS-backed preservation strategy</u>. Figshare issues DOIs for content it hosts, offers altmetrics (views and shares) to help you track the readership and interest in your preprint, and requires CC-BY licenses for publicly accessible preprints. Figshare's commenting feature allows for easy, public feedback on your work.

One downside to Figshare is that <u>it's easy for your preprint to get lost in the mix</u> amongst all the other data, posters, and other scholarly outputs that are shared on the site, from many different disciplines. It's also a for-profit venture, meaning it wouldn't meet the non-commercial requirement that some journals have for preprints.

PeerJ PrePrints

A preprint server for the biomedical sciences that's closely integrated with the Open Access journal, PeerJ. PeerJ PrePrints is free to use and <u>popular in the Open Science community</u> due to its sleek submission interface and the availability of altmetrics. PeerJ PrePrints also offers a commenting feature for feedback.

Like Figshare, PeerJ PrePrints will not meet the "non-commercial" requirement for sharing preprints that some journals may have.

ArXiv

ArXiv is one of the <u>oldest</u> and most famous preprint servers, and it serves mostly the physics, maths, and computational science communities. It's a non-profit venture run by Cornell University Library, meaning it meets the "non-commercial" requirement of some publishers. By virtue of being a disciplinary repository, it's a good place to post your work so that others in your field will read it.

Two drawbacks of ArXiv are that it's not often used by those outside of physics and its other core disciplines, and that it doesn't offer altmetrics, making it impossible to know the extent to which your work has been viewed and downloaded on the platform.

BioRxiv

A final preprint server option is the relatively new website, <u>BioRxiv</u>. It's popular with researchers in the life sciences (biology in particular, as you might have guessed) and operates in a manner similar to ArXiv (non-profit, stewarded by Cold Springs Harbor Laboratory, and discipline-oriented). Authors can upload their preprints, which are assigned a DOI. Users can give feedback on preprints via the simple-to-use commenting function (a good example of which can be found <u>here</u>).

For more preprint server options, check out Ethan White's great list over on his blog.

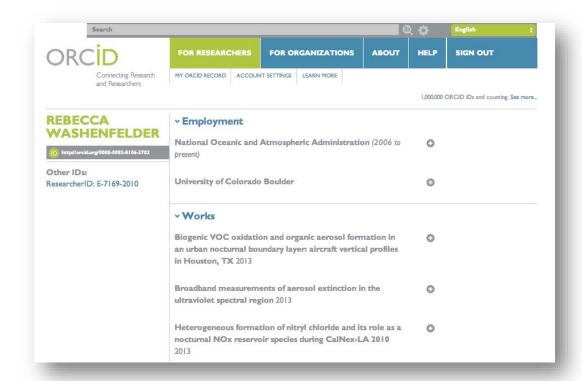
Homework

For today's homework, you're going to do some due diligence. Use this list of preprint policies and Sherpa/Romeo or rchive.it to learn what journals in your discipline allow pre-publication archiving, and do some thinking on how you can share your next study prior to publication. That way, when you write your next article, you've got a preprint server in mind for it, so you can share it as quickly as possible.

And if you didn't finish uploading preprints for articles you've already published (your homework from yesterday), upload them today. The more content you've got online and freely available, the more everyone benefits!

Tomorrow: ORCID identifiers to collect and claim your articles, datasets, and more.

Day 17: Claim your ORCID identifier



By now, you're pretty prolific online—you've got lots of open access slides, data, software, and articles to your name. But which name is that?

There's a lot of potential for confusion and mistaken identities in scholarly publishing. You might share a name with other, similarly named researchers–for example, there are more than 1200 "J Wang"s in nanoscience alone! Or you might have changed your name at some point during your career. How are others supposed to know if they've found the right you?

Luckily, some smart people have been working to make name disambiguation easy.

ORCID IDs are permanent identifiers for researchers. They <u>protect your unique scholarly identity</u> and help you keep your publication record up-to-date with very little effort.

ORCID was founded in 2012 as a non-profit organization comprised of publishers, funders, and institutions like Nature Publishing Group, Wellcome Trust, and Cornell University. Over 1 million researchers have ORCID IDs so far, and the number continues to grow. At Impactstory, we're big fans of how they've embraced open source code and open data while respecting user privacy.

Setting up your ORCID profile will help you claim your correct, complete publication record. In this challenge, you're going to claim your ORCID ID so you can automate the collection of your work and related metrics in a future challenge.

Here's how to get started with ORCID.

Step 1. Claim your ORCID in under 30 seconds

First things first: logon to <u>ORCID.org/register</u> and sign up for an ORCID account.

At this step in the process, you'll add very basic information like your name and email address, choose a default level of privacy for your profile, accept ORCID's terms of use, and click "Register".

If your name is already in the ORCID system, you'll then be prompted to claim an existing profile or make a new one.

Congrats! You now have an ORCID identifier. And now you're on your way to having an ORCID profile, too.

Step 2. Fill out your ORCID profile

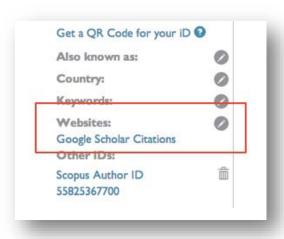
Next, you'll fill out your ORCID profile so that others can verify who you are, and also learn more about you. Here's what to add:

Links to LinkedIn, your website, and your other profiles on the web

First, add links to your Google Scholar and LinkedIn profiles, your personal website, and any other websites where you've got a scholarly profile.

On the left-hand menu on your main profile page, click the pencil "Edit" icon next to "Websites."

In the fields that appear, add links to your LinkedIn, Google Scholar, and other professional profiles you've created so far as a part of this challenge. Also add a link to your website. Describe each link adequately enough so your profile's viewers know if they're going to click a Google Scholar link vs. a ResearchGate link, and so on. Click "Save changes" when you're done.



Import your publications by connecting other scholarly identifiers

Any type of scholarly output you create, ORCID can handle.

Are you a traditional scientist, who writes only papers and the occasional book chapter? ORCID can track 'em.

Are you instead a cutting-edge computational biologist who releases <u>datasets</u> and figures for your <u>thesis</u>, as they are created? ORCID can track that, too.

Not a scientist at all, but an art professor? You can import your works using ORCID, as well, using ISNI2ORCID... you get the idea.

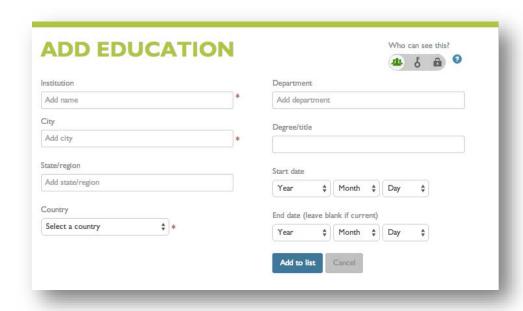
ORCID will even start importing information about your <u>service to your discipline</u> soon!



To connect to other identifiers and indices, from your main profile page, scroll down to the "Works" section and click the "Link Works" button. Then you'll be prompted to connect to the services of your choice.

Once you've connected your profiles, your works will be imported automatically to ORCID. If you've connected another scholarly identifier like your Scopus Author ID, a link will appear in your left-hand menu bar.

Complete your personal information



Finally, add your education credentials and employment history that might not have imported when you connected other services.

Under each section, click the "Add Manually" button, fill out as much descriptive information as you're comfortable sharing, choose the level of privacy

you'd prefer under the "Who can see this?" section in the upper right of the pop-up box, and then click "Add to list" to commit it to your profile.

Step 3. Complete your publication record

It's possible that not all of your publications and other works will have imported. You can add them in three ways:

- 1. Manually by clicking the "Add Work Manually" button under your Works section and adding the publications one-by-one.
- 2. Importing works from your Mendeley profile using the Mendeley 20RCID service. Just login with your ORCID ID in the top-right corner of the screen, approve a sync with Mendeley, and your works will be imported to ORCID.
- 3. Batch import your works using the <u>new BibTeX import button</u>. You can export your works from Mendeley, EndNote, and many other reference management services in BibTeX format, then click the "Link BibTeX" button under the Works section of your profile, upload your BibTeX file, and you're done!

If any duplicate records were imported with the Mendeley sync or BibTeX import, you can delete them by clicking the trashcan icon next to the duplicate work's title.

Step 4. Connect ORCID to the rest of your online life

You can connect your ORCID account with websites including <u>Web of Science</u>, <u>Figshare</u>, and <u>Impactstory</u>, among <u>many others</u>.

Once they're connected, you can easily push information back and forth between services—meaning that a complete ORCID record will allow you to automatically import the same information to multiple places, rather than having to enter the same information over and over again on different websites.

And new <u>services are connecting to ORCID</u> every day, sharing information across an increasing number of platforms–repositories, funding agencies, and more!

Limitations

ORCID is still a relatively basic service. You cannot edit incorrect entries, automatically detect and remove duplicates, or export your profile information in BibTeX, JSON-LD, or other researcher-friendly formats.

ORCID also has gaps in its coverage. It doesn't find all of your publications, all of the time, and connectable third-party services like Scopus don't always, either. That means you might have to manually add some works and information to your

profile, same as you do for ResearchGate, Google Scholar, and all other scholarly profiles.

Homework

Your job for today is to make sure your ORCID profile is complete. Check over your Works list to be sure all of your scholarly outputs are present; add grants you've received in the Funding section (NSF, NIH, Wellcome Trust, and some other funders' grants can be automatically imported); and connect your ORCID profile to your other scholarly profiles on the Web. (At the very least, add a link to your website, your LinkedIn and Google Scholar profiles, and connect ORCID to other scholarly identifiers like your ResearcherID if you have one.)

You should also make sure that your scholarly linkages work both ways. Copy your full ORCID ID (hint: it's your profile URL that's got a long, 16-digit number in it) and paste it into your Academia.edu, ResearchGate, Google Scholar, LinkedIn and other profiles, as well as your website and blog.

Tomorrow, we tackle a fun challenge: making a video abstract/explainer video for your work!

Day 18: Make a video abstract for your research



A screenshot from 'Wavechasers and the Samoan Passage' video abstract

Video abstracts are a great way to explain your work to the public and researchers outside of your field. To <u>paraphrase</u>, they're like value propositions on steroids.

These 3-5 minute videos allow you to sum up what you've accomplished and documented in a journal article and, crucially, why it's important to the world. You can use video abstracts illustrate concepts and experiments explained in your article, to "introduce viewers to the equipment and tools you have used in your research and engage with your audience in a more informal manner," explains IOP Press.

An increasing number of publishers are adopting video abstracts as a great way to market research articles, and in less than an hour you can create one of your own.

In today's challenge, we'll walk you through the basics of creating a video abstract for a journal article: how to write a script, record the video using common equipment, and share your video to get maximum visibility for your research.

Step 1. Learn what makes a good video abstract

Here are some award-winning and highly ranked video abstracts:

- GBV 5-Minute Science Fair [Public Health & the Pandemic of Violence Against Women]: a straightforward video of a researcher describing her study of domestic violence among Latino immigrant communities in Washington DC. It has good production value—well lit, easy to hear, plus some custom titles and credits added on to the beginning and ending—but is simple enough in concept that anyone could pull it off.
- <u>Dangling-bond charge qubit on a silicon surface</u>: in just under five minutes, this video abstract sets a stage for what qubits are and why this particular study advances our knowledge of qubits. The researchers reuse computer-generated graphics and figures from their paper to illustrate the concepts they explain in the video, to great effect.
- The Bacterial Effector VopL Organizes Actin into Filament-like Structures: this video features three researchers describing their paper with the aid of paper and pen, protein models, and some sweet action shots in the lab. It's a highly technical explanation that can be a bit dry at points, but still manages to explain the study in a manner that non-specialists like me can understand. It's successful even without the cool footage from the rainforest that the next video boasts, because the authors explain things well and go out of their way to illustrate concepts for the viewer.
- <u>Wavechasers & the Samoan Passage</u>: an action packed video abstract that seems more like a movie trailer than an explanation of geophysics. ("The Wavechasers team travels to Samoa (experiencing Samoan culture and hospitality while there) to measure an undersea river 5 km beneath the sea surface.") Setting aside the insane production value of the piece, what really drives this video abstract is the story behind the research.

So, what makes these video abstracts good?

Wiley explains:

The best video abstracts tend to answer at least two of the questions below:

- What does your article cover?
- What are the implications for future research on this topic or where would you like to see the field go?
 - How can an instructor use your article in their teaching?

Viewers need to know how your research is relevant to their lives, their universe, or the advancement of knowledge in your field.

But you can't just say anything in your video abstract. Aim to keep your video simple and short, refrain from using jargon, and–if possible–tell a story that'll hook your viewers within the first 30 seconds and keep them watching until the end.

With these principles in mind, let's get started!

Step 2. Gather your equipment

The basic equipment you'll need is readily available to many researchers

- A computer, webcam, and microphone: Many newer model laptops now come with webcams and microphones built-in. If you don't have one, try a grad student in your lab or borrow one from a colleague. You can also use a desktop computer with a standalone webcam and microphone, if need be. And if you plan to do a simple video abstract (like the GBV point-and-shoot video featured above), a smartphone that can record video will do in a pinch.
- **Video recording software:** If you've got a late model MacBook, the pre-installed QuickTime Player software can be used to <u>create a simple screencast</u> and iMovie can be used to edit any videos you create. Otherwise, check out <u>Lifehacker's list of best screencasting software</u> for the top Windows and Mac options.
- Something interesting to say about your research: Video abstracts are only as good as the stories they tell. No amount of production value can make up for a dispassionate explanation or lack of relatability to the viewer's own life. In the next step, we'll share some research-backed tips on how to communicate your results, but at the very least, you'll need the kernels of the story from which we'll make this video abstract bloom.

Once you've got all that together, it's time to choose a format and write your script.

Step 3. Choose your format

Do you want to do a point-and-shoot video that's simply 2 minutes of you describing your paper and why it rocks?

Would you prefer to structure your video abstract like a lightning-talk screencast, with you explaining slides and videos that illustrate your points from off-camera?

Or maybe you've got an amazing story to go along with your study, and some buddies in your university's press office that have a lot of time and money to help you make a splash with a killer movie trailer-style video?

The format of the video you'll create will likely be dependent upon what equipment and technical expertise you have on hand. And your script will be dependent upon your video's format.

So, catalogue what you've got available and decide upon a format. Because we're getting to the good stuff next: your video's script.





You'll use your script to narrate the story of your video. It doesn't have to be written out, word-for-word; if you're comfortable ad libbing, a simple outline will do. But you'll still need to plan ahead on what you're going to say, to some degree.

Create an outline

Your outline should follow a basic structure.

A problem statement

What question was unanswered before you began your research, and how did that affect the viewer's life or the advancement of knowledge in your field? ("We knew that prostate cancer affected residents of three New York counties at a rate double that of the rest of the state, but no one knew why.")

A one-sentence explanation of how your research solves that problem

Using as simple language as possible, describe the results of your study and what bearing it might have on a solution to the problem statement. ("After a 30-year study of New York residents and countless environmental tests on both humans and lab animals, we discovered that contaminated groundwater was likely the culprit.") Both this explanation and the problem statement should fit into the first 30 seconds of your video.

An in-depth explanation of your study and results

Here you can dive into detail, setting up the story of how you conducted your study—the types of experiments you ran or data you collected and analyzed—and the specifics of the results you found and what they might mean. Remember to refrain from using jargon unless absolutely necessary, and explain any jargon you do use.

Reiterate what the problem is, how you solved it, and why the world's a better place now

In the final few seconds of the video, you'll remind the viewer of the problem your study has solved, and bring it back home to explain what bearing that has on their life. ("Now that we know that groundwater contamination resulting from the fracking methods used by most drillers does indeed cause cancer, we may be able to convince politicians to ban these methods in the future, so no one else is affected.")

Invite the viewer to become a reader

If the viewer's made it this far into the video, they're likely hooked on what you've said and want to know more. Use this opportunity to point them to your journal article or preprint where they can read the full study.

Build your outline into an engaging script

Once you've got a solid outline, you'll need to decide if writing a full script will be useful for the video.

If you've decided to do a **point-and-shoot video**, an outline of your talk is probably your best bet. It will keep you on your main talking points, while avoiding sounding stiff or over-rehearsed.

Doing a **lightning-talk screencast** instead? Use your outline to create a slide deck, and then write out what you're going to say, word for word, so you can read it while doing the screencast.

For a **movie trailer abstract**, you'll definitely want a full script, and you'll probably want to develop it with the help of experienced A/V professionals in your university's press office.

If you decide to write a full script, keep in mind that <u>120-150 words roughly</u> <u>translate into a minute of video</u>. You'll want to keep your video to 3-5 minutes, so plan to write a script that's 750 words or less.

Need some inspiration? A great <u>example script can be found on TheScientistVideographer.com</u>.

Step 4. Record your video abstract!



CC-BY 2.0 <u>Dave Dugdale</u>

If you're recording your video abstract for sharing on a publisher's website, you'll need to record your video according to their guidelines. Be sure to double-check their limits on the video's length, quality, and how and where it's shared.

If you're creating a point-and-shoot video or a movie trailer-style abstract, pay close attention to the quality of sound and lights. Videos that are difficult to watch won't get many viewers. The <u>University Affairs blog</u> recommends using "a lapel microphone, ideally, or else a very quiet room. Ensure that lights are facing the speaker and avoid backlighting, which happens when you situate the interview subject against a window."

And if you're creating a lightning-talk screencast video, consider paying a professional voiceover artist to narrate it. They can be <u>easily hired on Fiverr for around \$5/minute of voiceover</u>, and often have the experience and audio equipment that'll make your video sound professionally produced.

If you'd rather do the voiceover yourself, keep <u>Videobrewery's advice</u> in mind:

Keep dialogue to between 125 and 150 words a minute. And while you might be able to speak 200 or more words per minute on your own, keep in mind that the voiceover needs time to breathe, allowing viewers to absorb what you're saying (this is especially true if the content is particularly dense or technical in nature). Machine gun fire dialogue quickly overwhelms viewers, causing abandonment and decreased comprehension.

Once your video has been recorded, you can choose to edit it with your video editing software. This is a good opportunity to remove your tangents and flubbed lines, but it might require you to learn a new skill. Sometimes, it's just easier to record a second take, instead.

One final option that'll make your video stand out: add intro and outro music that's licensed for reuse, which can be <u>hunted down on the Internet Archive</u> for free or <u>purchased cheaply from AudioJungle</u>.

When you've finished recording, buy yourself a drink! You've just accomplished a pretty big feat: video-enhanced public outreach.

Now let's get your video to the public!

Step 5. Upload the video

Where to share it

Two popular platforms for video sharing are YouTube and Vimeo. Both can be used to track views and likes for your video, and allow you to copy-and-paste simple codes to embed your video in other websites. Neither offers long-term preservation, so you might consider backing up your video abstract on Figshare or a similar service.

YouTube

YouTube is free and easy to use, but it has its drawbacks: they reserve the right to place ads on and alongside your videos.

Vimeo

Vimeo is also fairly easy to use and offers a well-designed, ad-free viewing interface. Its main drawback is that you have to <u>pay for video uploads greater than 500 MB in size</u>. You can disable comments and allow viewers to download your video, if you wish.

What to include

When you upload your video, be sure to include a descriptive title (one that matches your article is ideal), a 2-3 sentence description of your video abstract's content, and a full citation to your paper (including a link to a freely-accessible copy of its full text, if it's been published in a toll-access journal).

Step 6. Promote your awesome new video abstract

Now that your video is online, let's get it some viewers!

Some good places to share your video on the Web include:

- **On the article homepage:** if the journal allows it, embed your video next to the written abstract for your paper. That way, potential readers get a more engaging glimpse of what your paper's about, beyond what appears in the written abstract.
- <u>Your website</u>: embed your video on your website's homepage, or on the Publications or Research pages.
- **Your blog:** share the video along with a link to your publication and a transcript of your video, adapted into a blog post.
- <u>Twitter</u> and <u>Facebook</u>: these social media platforms were practically made for sharing video with the public. Share a link with your next update and both platforms will automagically embed it for your followers and friends.
- We Share Science: this video aggregator allows you to share your science video abstract with other scientists and students. You can also follow other authors and video creators on the site to stay on top of the best video abstracts—useful for discovering what works well so you can borrow it to use in your own videos!

Homework

Choose an article you've written and create a video abstract for it. And once you've created it, share it on at least one of the platforms or websites we mention above.

Tomorrow, we'll explore how you can turn peer reviews into an opportunity serve your discipline and build your brand as an expert in your field.

Day 19: Establish your expertise with Open Peer Review

Peer review is another area in academia that's got a lot of untapped potential for demonstrating your impact.

New forms of peer review-open peer review for journals, post-publication peer review, and peer reviews written on sites like Publons-can help you establish expertise in your discipline. They turn anonymous service to your field into a standalone scholarly product, and also communicate feedback on published work to your discipline much more quickly than letters to the editor can.

Open Peer Review was borne of the idea that by making author and reviewer identities public, more civil and constructive peer reviews will be submitted, and peer reviews can be put into context.

And Open Post-publication Peer Review builds upon that by allowing anyone to publish a review of an already-published paper, whether on their blog or a standalone peer review platform like Faculty of 1000 or PubPeer. After all, why should official reviewers be the only ones allowed to share their views on a paper?

In today's challenge, we'll explore your options for writing Open Peer Reviews, talk about ways you can make your reviews citable and discoverable, and share tips for documenting your peer reviews on your CV.

Traditional peer review

For a very long time, publishers favored private, anonymous ('blinded') peer review, <u>under the assumption that it would reduce bias</u> and that authors would prefer for criticisms of their work to remain private. Turns out, their assumptions weren't <u>backed up</u> by evidence.

It can be easy <u>for authors</u> to <u>guess the identities</u> of their reviewers (especially in small fields). And yet, a consequence of this "anonymous" legacy system is that you, as a reviewer, can't take credit for your work.

Sure, you can say you're a reviewer for *Physical Review B*, but you're unable to point to specific reviews or discuss how your feedback made a difference. That means that others can't read your reviews to understand your intellectual contributions to your field, which—in the case of some reviews—can be enormous.

Shades of Open Peer Review

In recent years, scientists have <u>increasingly called for an Open alternative to traditional peer review</u>. This has manifested in journals adopting Open Peer Review (OPR), researchers taking to their blogs to review already-published work, and the proliferation of Open and Post-publication Peer Review sites like Faculty of 1000, PubPeer, and Publons.

Each shade of OPR has its advantages and disadvantages. Let's take a closer look.

Open Peer Review for journals

Here's how Open Peer Reviews work, more or less: reviewers are assigned to a paper, and they know the author's identity. They review the paper and sign their name. The reviews are then submitted to the editor and author (who now knows their reviewers' identities, thanks to the signed reviews). When the paper is published, the signed reviews are published alongside it.

Journals including BMJ and PeerJ require or allow Open Peer Reviews.

Participating in journal-based OPR can be a good way to experiment with OPR as the author, journal, and reviewer alike officially sanction it.

One drawback to this type of Open Peer Review is that journals sometimes do not provide permanent identifiers for the reviews themselves, making it difficult to track the reach and impact of your review rather than for the journal article you've reviewed. Luckily, Peer is working to change that—they're now issuing DOIs for Open peer reviews, which comprise 40% of their reviews.

Third-party Open and Post-publication Peer Review sites

In the past few years, a number of standalone, independent peer review sites have emerged: PubPeer, Publons, and Faculty of 1000 are among the many. These sites allow you to review both published and under-review papers on their platform, and in the case of Publons, export your reviews to journals for use.

These sites also allow you to submit your reviews as Open Peer Reviews, and to create profiles showcasing your peer reviews. Some sites like <u>Publons also issue</u> <u>DOIs for reviews</u>, making them citable research objects.

Blogging as Open Post-publication Peer Review

In this type of Open Peer Review, academics take to their blogs to share their thoughts on a recently published paper or preprint. These reviews can run the gamut from highly technical reviews oriented towards other scientists (a good example is this post on Rosie Redfield's blog) to reviews written for a more general audience (like Mike Eisen's post on the same study).

A major advantage to blogging your Open Peer Reviews is that you don't have to have permission to do it; you can just fire up your blog and start reviewing. But a downside is that the review isn't formally sanctioned by the journal, and so can carry less weight than formal reviews.

No matter what type of Open Peer Review you opt for, if it's got your name attached to it and is available for all to read, you can use it to showcase your expertise in your area of research.

Write an Open Peer Review

If you'd prefer to go the journal-sanctioned Open Peer Review route, choose to review for journals that already offer Open Peer Review. A number of forward-thinking journals allow it (*BMJ*, *PeerJ*, and *F1000 Research*, among others).

To find others, use Cofactor's excellent journal selector tool:

- Head over to the <u>Cofactor journal selector tool</u>
- Click "Peer review,"
- Select "Fully Open," and
- Click "Search" to see a full list of Open Peer Review journals

Alternatively, you can write your peer review on a stand-alone post-publication peer review platform like <u>Faculty of 1000 Prime</u>, <u>Publons</u>, or others we mentioned above. Find a platform that works for you, sign up for it, and start reviewing!

And if you choose to do Open Post-publication Peer Review through your blog, just logon and start reviewin'!

Get citations and altmetrics for your peer reviews

Once your Open Peer Reviews are online, you can <u>discover citations</u>, <u>shares</u>, <u>discussions</u>, <u>and bookmarks of them</u> if they've got permanent identifiers that are easily trackable. The most common ID that's used for peer reviews is a DOI.

There are two main ways you can get a DOI for your reviews:

- Review for a journal like <u>PeerJ</u> or peer review platform like <u>Publons</u> that issues DOIs automatically
 - Archive your review in a repository that issues DOIs, like <u>Figshare</u>

When you've got your DOI, use it! Include it on your CV (more on that below), as a link when sharing your reviews with others, and so on. And encourage others to always link to your review using the DOI resolver link (these are created by putting "http://doi.org/" in front of your DOI; here's an example of what one looks like: http://doi.org/10.7287/peerj.603v0.1/reviews/2).

Elevate your peer reviews

Peer review may be viewed primarily as a "service" activity, but things are changing—and you can help change 'em even more quickly. Here's how.

As a reviewer, raise awareness by listing and linking to your journal-sanctioned reviews on your CV, adjacent to any mentions of the journals you review for. By linking to your specific reviews (using the DOI resolver link we talked about above), anyone looking at your CV can easily read the reviews themselves.

You can also illustrate for others the impacts of Open Peer Review by including citations and altmetrics for your reviews on your CV. An easy way to do that is to include on your CV a link to the review on your Impactstory profile. You can also include other quantitative measures of your reviews' quality, like Peerage of Science's Peerage Essay Quality scores, Publons' merit scores, or peer-review quality. Just be sure to provide context to any numbers you include.

If you decide to do open peer reviews mostly on your blog or standalone peer review sites, you'll likely not want to list them under Service to journals, per se, but instead perhaps under Outreach or more general Service to your field.

Limitations

A big concern for early career researchers and graduate students lies in openly criticizing senior researchers in their field. What if they're retaliated against? Anonymity would protect these ECR-reviewers from their colleagues.

Yet as <u>Mick Watson argues</u>, any retaliation that could theoretically occur would be considered a form of scientific misconduct, on par with plagiarism—and therefore off-limits to scientists with any sense.

We think that you're the best judge of whether or not a peer review could have unintended consequences, and suggest that you go with your gut when deciding to make your review open or not.

Homework

Your assignment for today is to choose an article to review on your blog. If you're new to reviewing or unsure how to go about writing a free-form peer review as a blog post, here are some guides to help you get started.

And in the future, consider doing more journal-sanctioned Open Peer Reviews.

Day 20: Stay up-to-date on your colleague's work

The next two days are devoted to being impactful in an indirect way: staying on top of your field, both the work of your fellow researchers and all the most relevant new work in your field. Staying on the cutting edge of your discipline can help you find unexpected opportunities for collaboration and spark your own creativity.

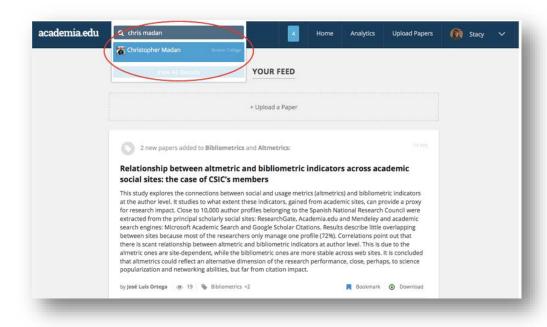
In today's challenge, you'll learn how discover your colleagues' new publications, software, and more.

Tracking your colleagues' new articles

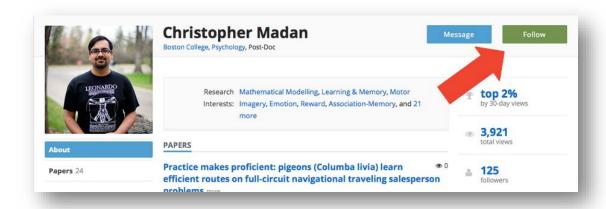
You can use many of the same social networking platforms you've already signed up for to track the new work of your colleagues in your email inbox. Plus, the powers of PubMed and IFTTT can be combined to find publications that aren't being shared elsewhere.

Academia.edu

Login to Academia.edu and search for a colleague:

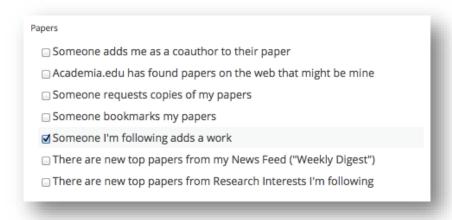


On their profile, click the "Follow" button:



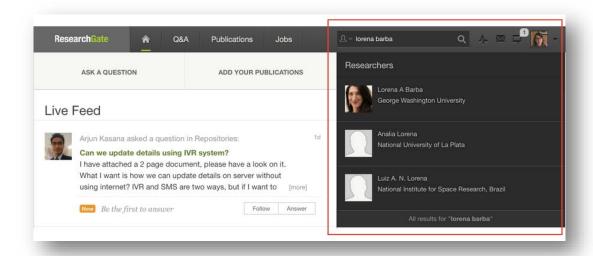
Now you'll see their most recent updates in your homepage newsfeed whenever you login to Academia.edu.

To stay up to date via email—so you don't have to login as often—you'll need to update your email notifications settings. In the upper right hand corner of your screen, click the arrow next to your name, then navigate to Account Settings > Email Notifications. Under the Papers section, select "Someone I'm following adds a work" and click Save at the bottom of the screen:

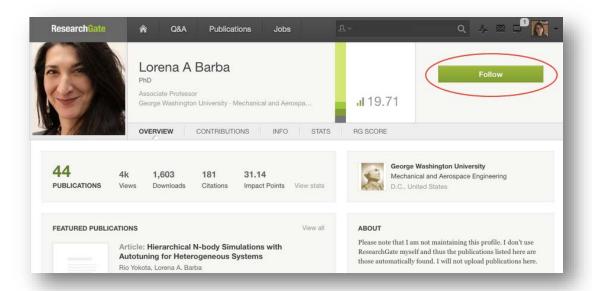


ResearchGate

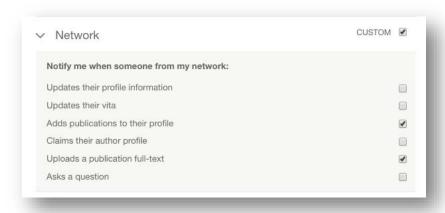
ResearchGate works similarly. Search for a colleague and select their profile:



On their profile page, click the "Follow" button:



Adjust your email settings by clicking the arrow next to your picture in the upper right-hand corner and navigating to Settings > Notifications. Under the Network section, select "Adds a publication to their profile" and "Uploads a publication full-text":



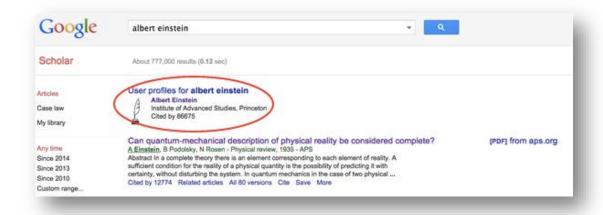
Both ResearchGate and Academia.edu have a few drawbacks to them: they only work when your colleague adds an article to their profile themselves, so it won't be a complete record of their recent publication history. And when you initially follow your colleague, they'll get a notification—which could be uncomfortable in some contexts.

Google Scholar

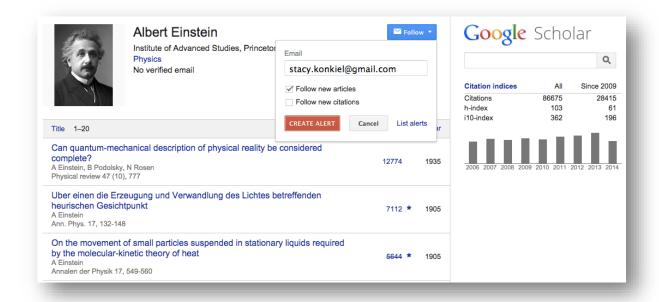
To get email updates when a colleague adds a new work, first search for them in <u>Google Scholar</u>:



Next, select their profile from among the search results:



On their profile page, click the Follow button, input your email address, select "Follow new articles," and then click the "Create Alert" button:

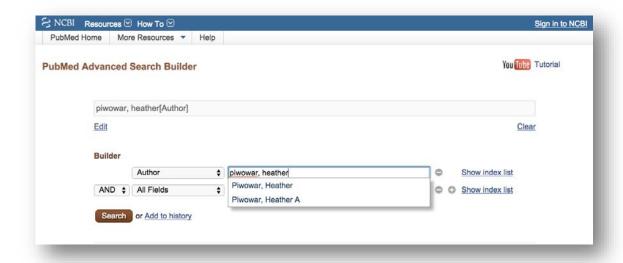


PubMed & IFTTT

The search index PubMed (and its counterpart, Europe PubMed Central) is a fantastic, free place to find out all the new articles that have been published in the life sciences (and some other disciplines, too). By hooking it up with IFTTT, you can get an email whenever a colleague's new article appears.

Logon to <u>PubMed</u> and click "Advanced" under the search box at the top of the page. Then, select "Author" from the drop-down box next to the top search box on the Advanced Search screen. If your colleague has a very common name, you can search by the more restrictive "Author Full" or "Author Identifier" options instead, and search by their complete name or <u>ORCID identifier</u>.

In the search box, type in your colleague's name, last name first, and select their name from the auto-generated options:



Click Search and on the next screen, look at the results to verify that they're accurate.

Assuming they are, your next step is to create an RSS feed for your colleague's publications. This will update every time a new publication matches your colleague's name.

Click the RSS icon under the search bar at the top of the screen, rename the feed if you want, then click "Create RSS":



On the pop-up box that appears, click "XML" and on the next page of XML-formatted results, you'll see the guts of your feed. What you're going to use from this is the URL for your RSS feed, which appears in the address bar of your browser.

Now it's time to set up IFTT. Logon to IFTTT and click "Create Recipe". Your "this" will be a feed. The trigger will be "New Feed Item." Copy the PubMed RSS feed URL into the "Feed URL" box that appears. Your "that" will be an email. Select "Send me an email," make any edits you want to the title of your email and the contents of your email body, and click "Create Action."

Now, whenever a new item appears on the PubMed search, you'll get an email update.

You might be wondering, "Why not create an alert using the NCBI interface?" Well, I haven't had great experiences with that interface—notifications I've set up haven't worked very well, and resetting lost passwords is difficult—and so I want to recommend a more elegant option for the purposes of this Challenge.

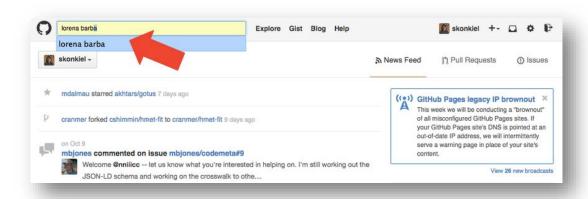
Tracking new software and presentations

You can also track others' new software and presentations using GitHub and Slideshare.

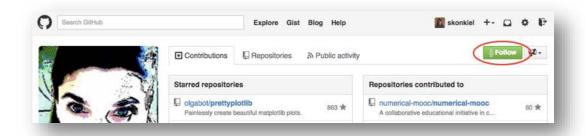
GitHub & IFTTT

You can use <u>GitHub</u>'s newsfeed to receive an email whenever anyone you follows does anything on GitHub: makes changes to existing code, uploads new code, comments on others' code, and so on.

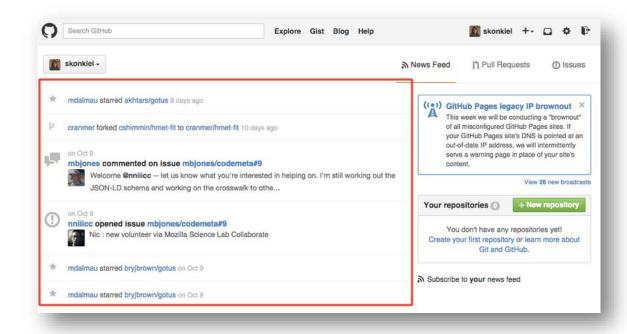
First, you'll need to follow your colleagues. Search for your colleagues from the "Search" bar at the top of your GitHub screen:



On their profiles, click the "Follow" button:



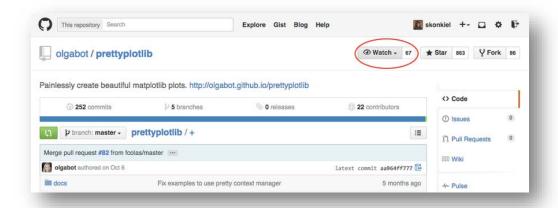
Once you've finished following your colleagues, on your GitHub homepage, you'll now see a stream of updates:



Click "Subscribe to your news feed" to the right of the feed and you'll be taken to the XML-encoded page for your entire feed. Use that feed URL to create a new email alert on IFTTT, following the directions from the PubMed & IFTTT hack above.

Now you'll have a lot of information in your inbox. If you'd prefer to only follow updates for specific, existing projects, you can follow repositories instead.

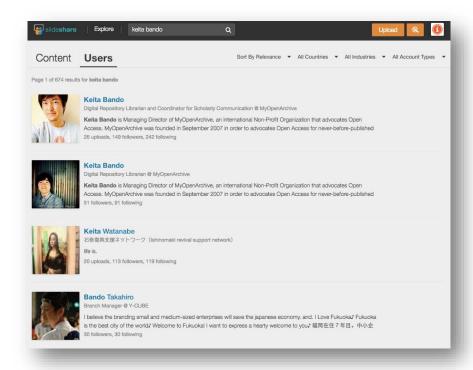
Here's how: find the repository you want to follow updates for on your colleague's profile or by searching for it by name. On the repository page, click the "Watch" button in the upper right-hand corner:



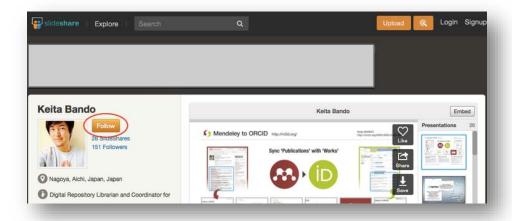
Then, adjust your email settings to get notifications whenever that repository is updated. Click the gear "settings" icon in the upper right-hand corner of the page, and then go to Notification Center. Check the "Email" box under the "Watching" section to get email updates.

Slideshare

To get updates when a colleague adds new presentations to <u>Slideshare</u>, first search for your colleague and select their profile:



On their profile homepage, click "Follow" on the left-hand side of the profile:



Next, you'll update your email preferences so you can get an email whenever they add a new presentation. Go to Account Settings > Email and select "When someone I follow uploads a Slideshare":



Limitations

Nearly all of these options for tracking your colleagues' research outputs only work if they—and you—have claimed a profile on the sites we've recommended above (aside from PubMed). And some are less than enthusiastic about claiming their profiles on Academia.edu and ResearchGate, due to what some scholars have called their "spammy" emailing practices.

Another potential limitation: you're potentially going to get a lot of emails with this method of tracking your colleagues. To get around these notifications clogging your inbox, I recommend setting up inbox filters to push these emails to a dedicated "Notifications" folder in your email. Here's how to set up notifications for Gmail, Hotmail, Yahoo, and Qutlook.

Homework

Find and follow five of your colleagues and competitors on as many of the above sites as you can.

Tomorrow, we'll broaden our scope to follow all new publications in your field, so you can find new publications and other scholarly outputs from both your colleagues and researchers you don't yet know.

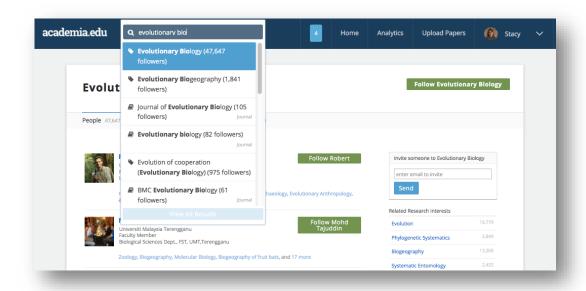
Day 21: Stay up-to-date on your entire field

In the previous chapter, you learned how to stay up-to-date in your field by following specific scholars' work. Today, we're going to take a complementary approach to the same thing: setting up alerts for subject areas. These alerts will send the newest research into your inbox, with very little effort on your part.

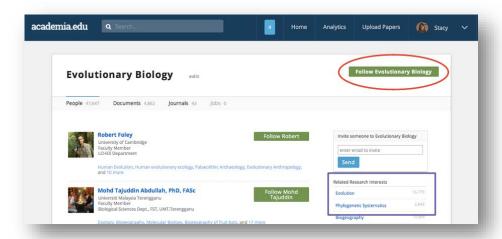
You'll set up email alerts for Academia.edu, Google Scholar, and other scholarly networks that will keep you abreast of the newest research in your field.

Academia.edu

Logon to Academia.edu and search for a subject area in the top search bar. As you begin typing, you'll notice suggestions populating the short-form search results:



When the subject you're interested in appears, click on it to head to the subject page. On the subject page, click the "Follow [Subject]" button on the right-hand side of the screen:



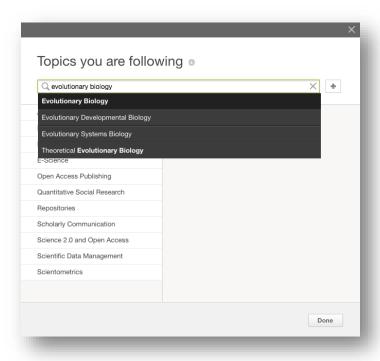
A number of similar "Research Interests" will be suggested to you on this screen, too. (See them outlined in purple, above.) Use this list for an easy way to find other subject areas worth getting updates for, too.

Next, you'll need to make sure you have emails enabled for these alerts. Head to Account Settings > Email Notifications. Under the "Papers" section, select "There are new top papers for the Research Interests I'm following":

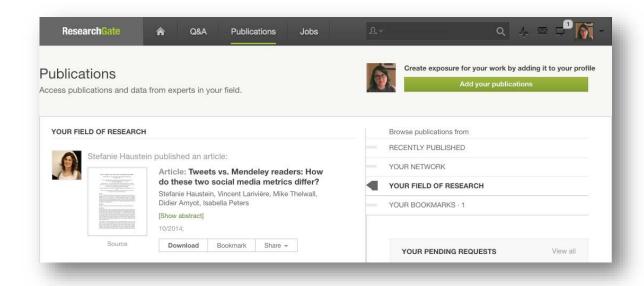


ResearchGate

ResearchGate makes it a bit more complicated: logon, go to your profile page, scroll down to find the Topics section of your profile, click "Edit" and add the subject areas you want to follow to your profile:



Then, to view new publications from the Topics you're following, click the "Publications" tab at the top of your profile, and then select "Your field of research" from the right-hand navigation panel:



You'll now see all new publications from your Topics. To make sure you get emails when new publications are added, go to Settings > Notifications and under the Scheduled Updates section, select the "Weekly digest of activities in my topics" option:

Scheduled updates	
Receive scheduled emails with:	
Reminders about a forgotten password	
ResearchGate information, updates, and suggestions	
Weekly digest of activity in my topics	•
Weekly update about my personal stats and RG Score	

Remember, as we mentioned in <u>yesterday's challenge</u>, that ResearchGate and Academia.edu have both prompted some complaints about the volume of email they send; like other social networks (LinkedIn is a particularly noteworthy example), they are trying to get you engaged with their site as often as possible, which can result in more inbox chatter than we'd like.

However, emails targeted at your specific interests can be quite useful—we've talked to a lot of researchers who list this as their favorite feature of Academia.edu and ResearchGate. The nice thing is that both services make it pretty easy to disable the alerts if they become too noisy, so you can try it and see for yourself without much risk.

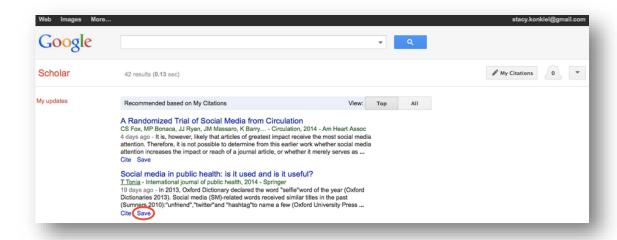
Google Scholar

Google Scholar's recommends specific papers for you based on your publication history and your "Library" of saved papers by other authors. Over time, as you save more papers to your personal library and add more of your papers to your Google Scholar profile, their recommendations get more accurate.

From the Google Scholar homepage, click the My Updates link at the top:



On the "My Updates" page, you'll see a list of recommended publications. Click "Save" beneath any citation you'd like to have added to your "My Library" to remember and read later:



Now, each time you login to Google Scholar, you'll have a customized reading list waiting for you. Sadly, you can't set up Google Scholar to email you a weekly reading list, but I imagine that's not too far off.

You *can* set up general topical alerts, however: visit the "Alerts" link at the top of your Google Scholar homepage, click the red "Create Alert" button and type in the phrase you want Google Scholar to search for, the more specific the better (for example, set an alert for "selectins" rather than "cell biology"). Any time Google Scholar finds a new article that matches your search, it'll send you an email alert.

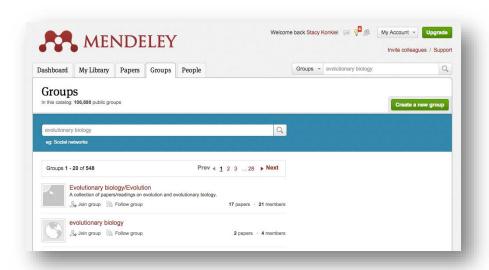
You can also set up alerts for other papers cite your work (these papers will almost always be relevant to your research interests). To do that, visit your Google

Scholar profile, click the "Follow" button, select "Follow new citations" and click "Create Alert."

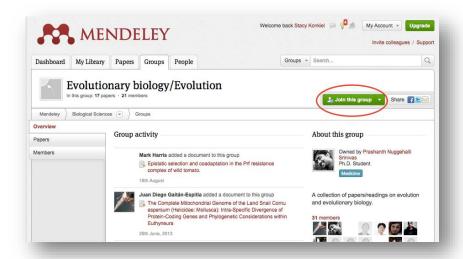
Mendeley

You can use Mendeley groups to stay up-to-date on publications posted to groups, which are often a peer-filtered recommendation that sometimes can find articles that you wouldn't otherwise discover.

Login to Mendeley; select "Groups" from drop-down next to the search box in the upper-right corner, and type your research interest into the search box. A list of related groups will appear in your search results:



On the group page that's most relevant to you, click the "Join this group" button to start receiving updates:



Now, every time you login to Mendeley, updates from your groups-including recommended papers-will appear in your newsfeed.

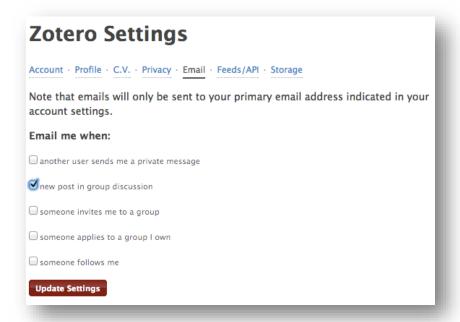
The final step is to set up email notifications, so you don't have to return to Mendeley to get updates on new recommendations. Click "My Account" > "Notifications" in the upper-right corner of the screen, and under the Group Notifications section, make sure both the email and web notifications for "Someone posts an update or a comment in a group" are selected:

Use the same notification settings for all groups Set different notification settings for individual groups		
Set different notification settings for individual groups	\bowtie	?
Someone joins a group that you administer		
Someone starts to follow a group that you administer		
Someone posts an update or a comment in a group	⋖	⋖

Zotero

Zotero works similarly to Mendeley. To search for groups in your discipline, login and select the Groups tab from the Zotero homepage. Search for a group, select a group page, and click the "Join this group" button on the group's page.

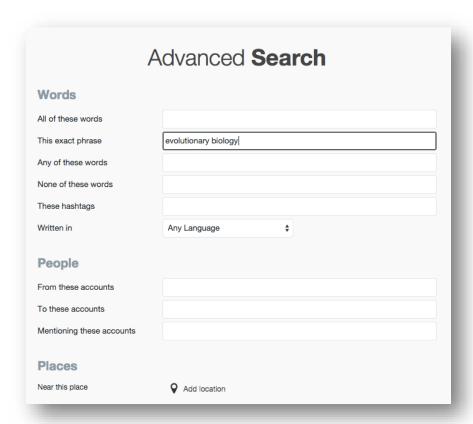
To get notifications from Zotero when new publications are added to a group, click the Settings link in the upper-right corner, navigate to Email, then select "New post in a group discussion" and click "Update settings":



Twitter

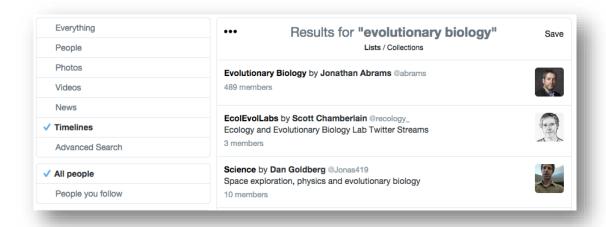
<u>Twitter</u> is another solid, real-time recommendation engine for publications, articles, and news related to your research interests. To get the best recommendations, you'll need to follow individuals who tend to tweet about the subjects you're interested in, and also to follow curated lists of related accounts.

To find people who are tweeting content related to your discipline, use Twitter's <u>advanced search</u> to search for relevant phrases:



On the search results page, select "People" from the left-hand navigation bar and then peruse the bios where your search phrase appears. Follow any individuals that look relevant to you.

To find lists related to your search terms, click "Timelines" on the left-hand navigation bar of the advanced search screen, and relevant lists will appear in the search results:



Click on the list titles to explore, and for any that you'd like to follow, click "Subscribe" in the left-hand column:



Bonus: you can also click "List members" and "List subscribers" to find individual accounts to follow.

Now, every time you log in to Twitter, you'll get up-to-the-minute recommendations on recent news and papers from others in your discipline.

One big drawback to Twitter is that you tend to miss anything that hasn't been recently tweeted about, meaning you have to login fairly regularly to the service to benefit from the recommendations on an ongoing basis.

Also, unlike the other approaches we've discussed above, Twitter is a person-based feed, not a subject-based one...that means you may get a lot of information about what people had for lunch, along with the latest research news. While this can actually be a great way to help you build your research community, it can also be overwhelming depending on your goals.

Homework

On your preferred social networks, sign up to receive disciplinary recommendations and recent publications in your inbox for at least three topics.

Stay tuned for tomorrow's challenge: using the mainstream media to give your work a broader audience.

Day 22: Get your research to the press

Your next Challenge is to get the word out about your research to the press. Doing so can help you gain wide exposure for your articles and, in the case of applied research, get your studies into the hands of patients, policy makers, and other populations that need it the most.

Today, we'll cover how to connect with your university's press office to get your work to the mainstream media, how and why to build relationships with journalists, and how to prepare for a great media interview. But first—what is a press officer and what do they do?

What the heck is a university press officer?

University press officers help you communicate your studies to the public. They usually do this via press releases, which filter and translate your super technical papers into language the public can understand. After all, "the average reader knows what bleach is but won't connect their experience with your article on sodium hypochlorite if you don't clearly state that what you're working with in lay terms" (FigureOne blog).

And press officers often have valuable contacts in the mainstream media, which makes it much easier to get your articles coverage in newspapers, the radio, and Internet publications.

It's good to recognize if you're dealing with a salesman" up front-you may want to rein them in a bit, providing some of the filtering and 'this is why this matters' parts of your research on your own. If you've got a journalist, though, you can leave more of the decision on what's press-release-worthy to them.

Be aware of "salesman" press officers. These are press officers that just want to get your story into the news, even if it's misrepresented or irrelevant to the public. Research communications consultant Dennis Meredith <u>points out</u> that working with "salesman" press officers will likely just get your work increasingly ignored over time.

Instead, be on the lookout for "journalist" press officers—someone who understands the value of nuanced and well-placed coverage of your research. Working with "journalist" press officers can help get your work better, more relevant coverage, according to Meredith.

It's good to recognize if you're dealing with a "salesman" up front—you may want to reign them in a bit, providing some of the filtering and 'this is why this matters' parts of your research on your own. If you've got a "journalist," though, you can leave more of the decision on what's press-release-worthy to them.

You can build relationships with journalists, too

Not everyone will have a press officer available to help them get their research to the press. It's useful to build one-on-one relationships with journalists for this reason. Ecologist Jacqueline Gill <u>suggests</u>,

The next time you read a particularly good (or bad) piece, make a note of the byline. Keep a running list of people whose coverage you like, and those you'd rather not talk to...Join Twitter...and start following science writers. Participate in the online conversations, in blogs, article comments, and in social media.

Gill also says that scientists shouldn't be afraid to approach journalists directly or, in some cases, "be your own science journalist." Check out her blog post on the subject for more practical ideas.

What warrants a press release?

Usually only research that would be of interest to lay persons is considered worthy of a press release. Oxford University Press <u>defines "press release-worthy"</u> as:

[a] journal article [that] contain[s] one or more of the following:

- New research in the field of study
- Research that sheds a new perspective or alternate perspective on research that received news coverage in the past
- Research that relates to current news stories and interest, e.g. Syrian politics
 - Publication coincides with an anniversary or date of interest
- Research in the public interest, e.g. elderly care abuse or pregnancy screening
- A call to action or a definitive statement of change, e.g. 'the government should do this...'

And it's usually only a journal article that warrants a press release. One <u>study</u> found that "71% to 83% of the respondents agreed that 'scientists should communicate research findings to the general public only after they have been published in a scientific journal."

Some people feel that any paper published in a glam mag-that is, *Nature, Cell, Science, PNAS*, and other big-name journals-is worthy of a press release. But no matter where you've published, if you've written an article that you think could be

of interest to the public, contact your press officer to see if they think it's worth publicizing.

What should be in a press release?

The main job of your press release should be to get the attention of journalists. After all, they're the critical bridge between you and the public. Liz Neeley of COMPASS points out,

Done well, press releases can offer researchers the chance to tell their stories on their own terms and alert interested reporters to a story they won't want to miss. Done poorly, they are usually ignored – and, at worst, they can even <u>distort the story of the science they attempt to share</u>.

Luckily, you've got a great source of material to work from: the <u>outline of the</u> <u>video abstract</u> you've created for the Impact Challenge!

A title: short and relevant

Make it snappy but not eye-rollingly cutesy or so pithy that it doesn't make sense. One way to do that is to consider what your paper's title might have been if you had written it for a newspaper rather than an academic journal. Your title also shouldn't overreach the data, <u>according</u> to Liz Neeley of COMPASS.

Include an embargo, if needed

If your paper isn't yet published, you may be required to include an embargo date and time at the top of your press release, so journalists know to hold the news until you're ready. Check with your journal to learn if they impose embargoes, and if so, what they are.

Then you gotta hook 'em

Your press release, like your video abstract, should include a hook that quickly summarizes why your research is relevant to their lives. Oxford University Press recommends that your hook include "an identifiable audience, main point of focus for the release, and headline for the article." Another way to think about your hook is a 1-2 sentence explanation of your research that inspires your audience to continue reading.

Writing a solid body for your press release

In Dennis Meredith's excellent "Anatomy of a news release," he outlines <u>important components of the rest of your press release</u>:

- An inverted pyramid style that summarizes the key concepts first, with background relegated to later in the release
 - Concise explanations of the scientific concepts

- Caveats about the research
- A broader perspective on how the findings fit into the research field
- Full credit to all the participants
- Reader-friendly use of technical terms. For example, definitions on first usage and use of only those terms necessary to tell the story
 - Vivid analogies and descriptions of concepts and experiments

Check out Dennis's full list of recommendations on his website.

Contact information

Journalists are going to want quotes and possibly even longform interviews, so be sure to include the lead author's contact information or that of an agreed-upon media representative from the research team.

Awesome images and other media

AAAS's Bethany Halford <u>points out</u> that "people like looking at cool stuff." If you've got images, video, figures, or other graphics from your study that'd make your press release visually appealing, include them!

How to prepare yourself for talking to the media

Assuming you've nailed your press release, journalists are now knocking on your door, wanting to interview you about your research. Here's how you can make sure you have a successful interview.

Identify your main objective

What is the single most important message you want those who read or hear your interview to come away with? AAAS <u>recommends</u> that you "prepare a single communication objective and two or three secondary points you want to make," and I'd agree. Keeping a single message in mind can keep you from veering off-topic or getting lost in the details of your study when talking with a journalist.

Flesh out your talking points

You'll need to also have talking points ready, so you don't repeat yourself when attempting to communicate your take-home message. The FigureOne blog <u>explains</u>:

It's important to have a set of talking points prepared ahead of time so you can clearly spell out the important details of your work without too much fumbling. The fastest way to get misquoted is to be unclear when you describe what you did and why it matters.

The American Geophysical Union has a <u>helpful worksheet</u> that you can use to formulate your talking points; complete it and keep it handy when conducting your interview.

Practice, practice, practice

The more you practice, the better you'll get at artfully explaining your talking points. Have a friend or colleague help you rehearse, if necessary. And keep <u>Ed</u> <u>Yong's advice about giving comments to journalists in mind</u> when rehearsing.

Say yes to the press!

Now that you're well practiced, it's time to start talking to journalists about your work.

Be sure to respond quickly to press inquiries. Journalists are often on deadlines that require you to respond within hours, not days or weeks. Rearrange your schedule if necessary so you can check your email and phone messages more often than normal, and make time to respond to inquiries you receive.

The Scripps Research Institute <u>points out</u> that you don't have to respond immediately to all inquiries, however:

When you receive a media request, feel free to ask the reporter for background: What is the focus of the piece? Who else are you speaking with? What is the format (e.g. live or taped)? If an interview request catches you by surprise, arrange to call the reporter back so you have time to gather your thoughts and do a Google search on the reporter, outlet and other background.

Trust your gut when deciding to respond to journalists based on their reputation and the publication they're interviewing you for.

Now get out there and start talking! Give your interviews, monitor the media for the final results, and give yourself a pat on the back for doing the complicated and sometimes intimidating work of speaking with the press!

After you've finished interviewing, you can offer to fact-check articles and be generally available for follow-up questions. But don't expect the right to review the articles before they go to press; that's just not how science journalism works.

The very real fear of misrepresentation

<u>Many scientists are wary of talking to journalists</u> for fear that they'll be misquoted or their research will be misrepresented through errors or omissions in news articles. *Science* <u>argues</u> that researchers have more control over this issue than they may realize:

"The quality of an article does ... not only depend on the skills of the journalist but also on the source," Scherzler continues. "One should, therefore, do everything in one's power to ensure that the journalist understands what one is trying to communicate and that he has received all the information required for a good article."

You won't be able to prevent all errors, but by being a well prepared and rehearsed interview subject and working with a press officer that's an expert in media affairs, you can nip some of these issues in the bud.

Also, keep in mind that there's a difference between lack of precision and outright misrepresentation. Often scientists need to get comfortable with the former when speaking to a broader audience—the public tends not to be specialists, and the important thing is that they get the main story, not the nitty-gritty details.

Oversimplification of your research can be frustrating, too. Scientists "can't overstate the uncertainties on the one hand, nor neglect to mention dangerous or unpleasant possibilities on the other," points out biologist Steve Schneider. "Our job is to provide the context," he says, and often having prepared, correct metaphors and examples that help illustrate a concept for the journalist and the public can do that.

Homework

Do some research to find out who your institution's or department's press officer is. Consider reaching out to introduce yourself to him or her, and possibly offering to provide quotes or expertise in your research area, should they ever need it. That way, when you have an article that's ideal for sharing with the public, you'll already have a friendly relationship with your press officer, which can make things go much more smoothly.

It's also a good idea to practice communicating your research to the public. Use the AGU communications worksheet to write talking points for an older study of yours, so you can get a feel for the practice.

Another great resource that's worth reading ahead of engaging the press is **Escape from the Ivory Tower** by Nancy Baron.

And if you've got a study that will be published soon and is ideal for sharing with the public, get in touch with your press officer now to get your research out into the media ASAP!

Day 23: Make connections and promote your work on listservs



Listservs–group email lists related to a particular subject–are a relatively low-tech way to get your research to a broader audience of your peers than social media can. Even the most traditional, technology-averse researchers can often be found on listservs, which is a big advantage for the medium over Twitter, Academia.edu, and other academic platforms.

Why are listservs so popular? Because all you have to do to reach hundreds, if not thousands, of your colleagues is send an email. This means all of the interaction happens in an environment you are already very well acquainted with: your email inbox.

Scientists all over the world use listservs in many ways: to pose questions to other experts in their field; to share new research that's of interest to their discipline; to announce conferences and calls for papers; and to support one another virtually.

By being an active and responsive member of listservs in your field, you can make a name for yourself as a helpful expert. And this in turn can help other scientists learn about you and your research.

In today's challenge, you'll learn the best three ways to use listservs to make a name for yourself and share your research.

First, let's get you onto a listserv or two.

Finding the right listserv

Listservs come in countless flavors. They can be related to any subject under the sun–from entire disciplines like this <u>computer science</u> listserv to as specific a topic as this <u>confocal microscopy</u> listserv. They also cater to speakers of many languages and scientists at all stages of their careers.

So, how can you find the right listserv for you? Here are the three best ways to hone in on your listserv(s) of choice, ranging from easiest to most difficult:

- **Search your scholarly society's homepage:** Many scholarly societies host listservs dedicated to researchers at particular points in their career (student, postdoc, faculty, and so on) or the many sub-disciplines within their field. Browse the homepages of the most popular scholarly societies in your discipline to see if they host listservs. You don't necessarily have to be a dues-paying member of a society to join, but oftentimes you do. These listservs tend to be the most widely used in many disciplines.
- **Ask a colleague:** I've always found it helpful to ask colleagues what the most useful listservs they follow are. Colleagues at a similar point in their careers as you are can give the best recommendations: they'll tell you the best listservs to follow for job announcements, where to find the best new publications, and what listserv audiences are especially kind and engaged when answering questions. And mentors or senior researchers can help you find the listservs that the bigwigs in your field monitor.
- "Deep googling": The final way to find relevant listservs is via search engine. Brainstorm keywords related to your discipline and also your specific area of study, a particular type of analysis, and so on. Then search for the term (plus the words "listserv", "google group," or "email list") on your favorite search engine and see what turns up.

No matter whether the listservs you find are expert recommended or discovered by searching, you should always evaluate whether they'll be right for you. For each, take a look at the listserv's archive. You can determine their relevancy to you by researching:

- How active the listserv's members are (if no one's posting to it regularly, the listserv is likely dead in the water),
- The quality of who's posting (are the field's "big names" contributing or only researchers you've never heard of?), and

• The type of content being shared (is it only "call for papers" announcements or are others also discussing and sharing regularly?).

Ways to use your listserv

Once you've subscribed, you should first "lurk" for a few weeks. That is, just read through the messages that are posted without responding. Lurking will help you get a sense of what type of content is regularly posted and how others tend to interact (are they curt, kind, etc.?). The listserv's guidelines will often spell out what can and cannot be posted, as well.

There are three main ways professional listservs can be used to forge meaningful connections with others: sharing content, posing & answering questions, and inviting debate.

Sharing content

Any time you are reading a paper that might be of interest to others in your field, email the paper's citation to the listserv, along with a link to where the paper can be found (an Open Access version is particularly helpful), and what you liked about it. Others will appreciate the recommendation; it helps them sort the wheat from the chaff when deciding what papers to read.

And papers aren't the only type content you can share: links to news articles, conference websites, datasets, open source software, and anything else you think others in your field would want to know about are good things to send along.

Promoting your own research is encouraged, too. If you've recently published a study (or created software, released data, etc.) that'd be of interest to others in your field, send it to your listserv. But don't *only* send your own work along: it can come across as self-promoting, and it won't have as much weight as if you're well-known for sharing quality content in general.

Posing & answering questions

Listservs can be a good source of crowd-sourced knowledge. Researchers often post questions to professional listservs along the lines of:

- "What's the melting point of isoxazole? I can't find it in Reaxys."
- "I'm trying to find that Axel and Smith paper from the early 2000's related to alluvial flow, does anyone have the proper citation?"
- "I'm new to the field and looking for a few good studies on GIS, engineering, and rock formations along the upper Mississippi River. Any recommendations?"

So, don't be afraid to pose thoughtful questions to your listserv. Any disciplinary question you'd ask a colleague is appropriate for posting to a listserv.

And you should also answer questions that others pose. People appreciate helpfulness. Connecting others with the knowledge they seek will make a name for you as both knowledgeable and charitable.

Inviting debate

Debate can be both challenging and super rewarding. It's "challenging" in that it can be difficult to do diplomatically over email. It's "super rewarding" in that, if done well, your name will be come synonymous with smart, well-argued rhetoric (at least for members of the listsery).

A good way to invite debate is to share and comment upon a paper you've recently read. Others will often chime in with their own thoughts and questions; respond carefully and thoughtfully to everyone who has replied to you. Keep in mind that the point of inviting debate is to add value rather than flaunt your own intellectual prowess. No one likes a know-it-all. ©

Limitations

Listservs have some noteworthy drawbacks. Chief among them is the volume of email they tend to generate—it's often too much for subscribers to handle. You can mitigate this by either creating an email filter that keeps messages out of your inbox, or opting to receive the listserv messages in a digest format that's sent daily or weekly (rather than one-by-one).

Email volume can make participation in listservs challenging. It can be difficult to keep up with the onslaught of messages, especially if you're subscribed to more than one listserv. "Batching" your responses can help you save time-set aside time once a week to read through messages and respond to any where you'd add value.

The final limitation to listservs is that they can sometimes be politically tricky to navigate. It's not uncommon <u>for a message to be misinterpreted</u> and cause hurt feelings or, worse, start a "<u>flame war</u>". And <u>researchers have found</u> that gender differences in communication can be exacerbated by listservs.

In this case, knowledge is power. If you receive a response that's rude, take a step back and remind yourself that

- a) Email can be a challenging medium, and it's possible that your interpretation of a message is different from the sender's intent;
- b) taking the high road is always a "win"-you'll retain your professionalism, even if others don't: and
- c) you don't have to respond to messages immediately.

Sometimes <u>waiting 24 hours can help lessen the sting</u> you're feeling and make it easier to compose a thoughtful, measured response to even the harshest criticisms.

How to unsubscribe

There will likely come a time when you'll want off of a listserv. Don't email the entire listserv with a request for removal—it's a common mistake that pollutes thousands of inboxes with unwanted email.

Instead, look for unsubscribe information at the bottom of your email, or perform a web search to find unsubscribe instructions instead. Sometimes, unsubscribing can be done with the click of a button on the listserv website; other times, you'll need to email the list moderator to be removed.

Homework

Find, join, and start lurking on at least three listservs that are relevant to your area of study.

Then, set up filters in your email, so the listserv email you get is channeled into a folder, away from your inbox. Here's how to set up notifications for <u>Gmail</u>, <u>Hotmail</u>, <u>Yahoo</u>, and <u>Outlook</u>.

And your final task is to batch your reading and responding to listservs. Scan your listserv emails at least once a week at a designated time and respond to any conversations or questions that you think you can add value to.

Day 24: Hustle at conferences



Are you missing out at conferences? You might be if you're just attending and not connecting.

Conferences are a fantastic place to <u>meet the biggest names in your field</u>, make connections that can <u>lead to later jobs</u>, and "gain insight into some of the 'less-obvious' aspects of how things work in the academic world — various norms, conventions, as well as some of the <u>social and political dimensions</u>."

Conferences also are a great opportunity to be a helpful expert, connecting the dots via social media for other attendees as well as people who are monitoring the meeting from afar.

In today's challenge, you're going to learn some ways to hustle at conferences and make plans for future meetings.

But first things first: you've got to attend the right conferences.

Choose the right conference

There can be dozens of conferences aimed at researchers in your field. Here's how to find your best options:

Ask a trusted colleague or advisor: they can tell you what the most popular conferences are, or the ones that are most appropriate for someone in your area of study or stage in your career. Take their recommendations with a grain of salt, though: if you're studying something they're unfamiliar with or working on an interdisciplinary problem, they might not know of all the best opportunities.

Browse scholarly society websites: some of the most important conferences are organized by scholarly societies. So check out the websites of any scholarly societies that are big in your field to see if they have annual meetings or related events listed.

Search Lanyrd: Lanyrd is a platform for announcing your intent to attend and speak at meetings, and discover meetings in your area of expertise. You can sign up for free by connecting your Twitter or LinkedIn accounts, and Lanyrd will helpfully show you what meetings others in your network are attending. You can also search the platform by subject area.

Search WikiCFP or Nature Events: both of these sites provide comprehensive lists of science meetings from around the world. You can browse by subject area on both, and Nature Events even lets you export conference information to your calendar. These platforms are less social media-oriented than Lanyrd.

Once you've got your meeting options, how can you know the right ones are to attend? Science recruiter David Jensen <u>suggests</u> four filters to use when deciding whether to attend a conference:

- Relevance of the topic to your current work and future goals. If you have the option, choose a meeting in your current or future field with a broad range of attendees, including people from industry and government.
- The quality of the speakers. The quality of the speakers determines the quality of the audience, which determines the quality of the networking opportunity.
- Visibility. While you can make a ton of contacts at a big meeting if you do it right, you'll be more visible at a smaller meeting. An opportunity to present at a more intimate meeting is often very meaningful.
- Can you afford it? ...At a big meeting, you can skip the presentations and get an inexpensive "exhibits only" badge. Ask the organizers if they need volunteers to work the social events desk or help attendees with their

projection equipment. Many meetings have reduced rates for students, and some even have awards to cover the cost of meeting-related travel.

Got some conferences in mind now? Good–now let's dig into how you can make the most of 'em.





Dig into the session schedules available on the conference website, and try to identify any "must see" talks by topic well ahead of time. It'll keep you from missing on important subjects related to your work, and provide valuable opportunities to make meaningful connections.

In addition to searching the schedule by topic, keep an eye out for the names of researchers you want to meet. Conferences provide many opportunities to connect: poster sessions, before and after presentations, at cocktail hours, and so on. If there's anyone you want to meet who's presenting, this meeting will be your chance!

You can also find out who's just planning to attend by connecting your Lanyrd account with Twitter and LinkedIn. Lanyrd will search for members of your network and let you know what meetings they've RSVP'd to. Of course, this only works if your network is on Lanyrd. An alternative is to ask your colleagues via social media whether they plan to attend.

Make some dates

Once you have a sense of who's going to attend, reach out via email or social media to arrange an informal meet up. The Next Scientist's Julio Peironcely suggests cold emailing with the following information:

Use for your email a self-explanatory title (don't just say "Hello"). Use something like "Meeting at conference XXX dinner to discuss BLABLA?"

The first paragraph of your email is your elevator pitch, short and to the point. [More on that in a moment.] After reading the first paragraph, the scientist you are [contacting] should already know if he [sic] wants to meet or not. Leave the details for the rest of the email...

The rest of the email could contain some of your achievements. Describe also what's in for the other person to meet with you.

For contacting colleagues you're already familiar with, <u>99u</u> suggests reaching out to your contacts beforehand and proposing "grabbing an early breakfast together, lunch, or drinks during the conference. Encourage each person to invite 1-2 people that they deeply respect, thus broadening the potential of the meeting."

Prepare an elevator speech

Consider this scenario: you find yourself standing in line for coffee with the conference's keynote speaker, who also happens to be someone you'd love to collaborate with. How do you pique her interest in the 30 seconds you've got her full attention?

That's where an elevator speech comes in. An elevator speech (also called an "elevator pitch") is a short, practiced explanation of who you are and what you study. Having a speech ready for situations like the one described above can save you from fumbling when you're put on the spot.

Biologist Catherine Searle <u>proposes</u> the following framework for creating your elevator speech:

- **Introduction** Explain who you are. This is sometimes unnecessary if you have already struck up a conversation.
- **Hook** What is the major question/problem you study? You can also start with an observation (e.g. I noticed this pattern in communities with more predators and I thought that predation could be driving dynamics).
- **Solution** How are you answering this question? For example, you could describe your use of field surveys, experiments or modeling. You may also talk about why you use a particular system.

- **Summary and benefits of this knowledge** What have you found? Why is this work useful? What are you looking into next? Try to draw it back to your hook.
- The stage of your career (optional). For example: "I'll be finishing my PhD this spring and will be looking for a postdoc position." This can be useful if you are about to transition to a new stage in your career; the listener may be a potential advisor or collaborator.

Use this framework to write out a brief elevator speech, then practice giving it. Practicing will help you eliminate awkward phrases, nail the flow, and memorize your main points. Remember to keep it short! You can always elaborate incrementally after you've got their interest.

If you'll be presenting a poster at a future meeting, you'll also want to <u>create</u> and <u>practice a poster pitch</u>, too.



"Never eat alone"

CC-BY-SA Thomas Wanhoff

There are heaps of opportunities to meet others at conferences, and some of the best happen around the dinner table: formal conference meals, informal "birds of a feather" lunch meet ups, and even impromptu "tweetups" for coffee or drinks.

Conference-hosted meals can give you a chance to become acquainted with people you otherwise might not meet. Worried about the mechanics of meeting new

people? Julio Peironcely <u>suggests</u> simply asking if an empty seat is taken, sitting down, and starting with small talk about the conference food before moving on to discussing research.

He also offers the following "can't fail" questions you can use to keep the conversation from stalling before you finish your first course:

- What is your research about?
- Do you have some exciting results so far?
- How is it to do research in your group? Pros, cons?
- How is it to live in your city?
- What were the toughest moments in your PhD?
- What are your scientific plans?

Meeting organizers might also designate tables for "birds of a feather" discussions, so you can meet others interested in similar topics. (That's how Stacy met Jason face-to-face for the first time-at a "birds of a feather" luncheon about altmetrics!) This can be an easy way to find like-minded colleagues.

You can also use mealtime to arrange informal meetings with colleagues, including those you emailed in the "Make some dates" step. Use conference downtime to arrange meetings over coffee or drinks; arranging an impromptu "tweetup" can also be a fun way to meet new people.

The title of this section is taken from the popular networking book, <u>Never Eat Alone</u> by Keith Ferrazzi. I highly recommend it for learning more networking strategies.

Attend the poster session

Poster sessions are great for meeting people. Think about it: a room full of scientists standing near their posters for hours, hungering to talk to others about their research. It's the perfect time to network and a good place to refine your networking skills. Use the prepared questions suggested above to get the conversation started. And be prepared to hand out business cards to those you meet who could be good collaborators. (More on business cards below.)

Carpe colloquium

You read that right: seize the conference! Take <u>opportunities for socialization</u> <u>that arise</u>, even if they don't fit into the rubric of what you're "supposed to do." I once made a new friend and valuable contact at a New Orleans-based conference by hunting down <u>beignets</u> when I was supposed to be in a talk.

You should do the same. Forego a keynote presentation to do some impromptu hacking on research code; strike up conversations with poster presenters and invite them to grab a coffee when their poster session ends; linger in the conference hallway to continue a debate that started over lunch; and just basically make the most of your time at the conference by building great relationships.

Curate the conference for others

By <u>tweeting</u> and <u>blogging</u> about the meetings you attend, you can not only recap important sessions for other attendees, but also share information with those who were unable to attend.

<u>Liveblogging</u> and <u>livetweeting</u> from sessions are popular ways to curate content as the meeting unfolds; you can also <u>recap</u> the entire conference after the meeting ends.

Keep in mind that some conferences have <u>banned social media coverage of their meetings</u>, and <u>some presenters might not want you to share their findings</u> before they have a chance to publish them in a peer-reviewed journal. Check before you blog (and tweet)!

Business cards

Be sure to bring business cards with you when you attend conferences. (And yes, even grad students should bring cards!) They're a quick and easy way to share your contact information with others.

You can order business cards online at Moo.com, or hit up your local copy shop, which often offers competitive prices. Moo cards have design templates, so if you're not artistic, you don't have to worry about designing anything—you can just choose a design, type in your contact information, and click "Buy."

One downside to these cards is that it can be easy to forget the face that goes with a name once you return from a conference. 99u <u>proposes</u> beating this by writing "action items" on the back of any cards you collect; for example, "Add on LinkedIn" for a generic new acquaintance or "Introduce to Dr. Smith – reagents hookup" for a friendly vendor you intend to follow up with.

Always follow up

You don't have to do this for everyone you meet, but for the best connections you made at a conference, it's nice to send an email saying, "Hello, I really liked your talk" or "Thanks for the constructive criticism about my poster, it will help me improve my study."

The Addgene blog <u>points out</u> that it's also useful to stay in touch after the meeting so you can meet up at next year's conference. "Once is just a meeting, but having lunch twice turns a stranger into a friendly colleague."

You can use LinkedIn, Twitter, and other social media platforms for ongoing interactions—the occasional comment, "like" or retweet will keep you at the top of their mind. Do it while you're still at the conference, or right away when you get home. Otherwise, it's easy to forget! And that'd be a waste.

Challenges

Hustling at conferences can be difficult if you're an introvert. (Heck, it can sometimes be hard if you're an extrovert!) I'd suggest starting small-maybe doing only 2 or 3 things I've suggested above during your next meeting-and building up from there. Check out The Postdoc Experience blog for more tips aimed at introverts who need to network.

Another challenge comes in the shape of a cocktail glass. If you don't drink, booze-based networking opportunities can perpetuate a culture of exclusion, making it very hard to connect with other researchers in a meaningful way. You can avoid this issue by joining in the event without drinking (to the extent it's comfortable to you), planning ahead to informal meetings, and taking full advantage of "birds of a feather" meals and coffee breaks to socialize.

Homework

Unless you're attending a conference tomorrow, you won't be able to act on the advice in this chapter immediately.

Instead, start preparing for the next meeting you're going to attend. Plan out who you'll try to connect with, prepare your elevator pitch, order some business cards, and so on. That way, you can come out swinging when those conference doors open.

Day 25: Mentor other scientists

Even if you're at the beginning of your research career, you can be a mentor.

Mentoring is a wonderful way to pay-it-forward, passing on knowledge and skills to younger generations of scientists. Mentors can help other researchers navigate tricky grant application processes, handle complex political situations in the lab, and connect with diverse colleagues and potential collaborators.

How does mentoring affect your impact? Well, impact isn't all about citations and prestige-it's about the effect you have on others, too.

And mentoring isn't always the "wise professor helps student" scenario that many imagine it to be. PhD students can be mentors to other students, researchers can "peer mentor" other researchers, and increasingly scientists at all stages in their career are using the Web to mentor each other.

In today's challenge, we'll mostly tackle the latter type of mentoring: leveraging social media to advise and support other researchers.

First, let's define mentoring.

Mentoring, loosely defined

Mentoring is often <u>defined</u> along the lines of "train[ing] or advis[ing] the mentee...so that they can work more effectively and progress," but it's so much more than that. And mentoring also no longer fits the rigid "wise professor helps student" scenario that I mentioned above.

In general, mentoring is about:

- Listening carefully and giving impartial advice
- Connecting junior researchers with opportunities
- Helping others without the expectation of anything in return

And there are a number of specific activities that mentors tend to offer. National Center for Faculty Development & Diversity's Kerry Ann Rockquemore <u>defines</u> those as:

- **Professional development** (time management, conflict resolution, project planning, grant writing, basic organizational and management skills).
- Access to opportunities and networks (research collaborations, funding, etc.).
- **Emotional support** (to deal with the stress and pressure of the tenure track and life in a new location),

- A sense of community (both intellectual and social).
- Accountability (for research and writing).
- **Institutional/political sponsorship** (someone to advocate their best interest behind closed doors).
- **Role models** (who are navigating the academy in a way they aspire to).
- **Safe space** (to discuss and process their experiences without being invalidated, questioned, devalued and/or disrespected).

Did you notice how most of these activities could be done by anyone, at nearly any stage of their career?

If you're a graduate student, you can mentor undergraduates. And if you're an early career researcher, you can do the same for graduate students, and senior researchers can do the same for you. Plus, researchers of similar standing with differing backgrounds can <u>"peer mentor"</u> one another. It's all about paying it forward.

We tend to think about mentoring as only being face-to-face rap sessions, but the truth is that the Internet allows us to mentor people we've never met through a variety of means. The first of which is the idea of "distributed mentoring."

Getting started with 'distributed mentoring'

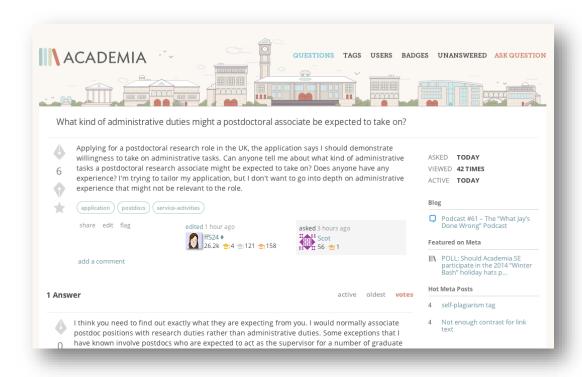
<u>Distributed mentoring</u> is a movement started by Diana Kimball to open up the practice of mentoring beyond the confines imposed by physical location. According to Diana, you can be a "distributed mentor" by creating a space on your website where you proclaim your interest in mentoring others over the Internet on a variety of topics.

Those who are interested in being mentored can read through your list and contact you via email to begin the process. You can "meet" via video chat or over the phone, as often as you'd like.

But distributed mentoring isn't done in just one-way. You don't have to join Kimball's movement to be a distributed mentor in essence. Instead, you can seek out others on social media who are in need of help.

There are many places on the Web where you can find junior researchers hungry for guidance. We'll highlight three: Academia Stack Exchange, ResearchGate, and Twitter. Let's break down how you can use each platform to help others.

Academia Stack Exchange



Academia Stack Exchange is a spin-off from Stack Exchange, a popular computer programming Q&A site. On Academia Stack Exchange (Academia.SE), users can ask about most aspects of academia: how to format a CV, the etiquette of handling a reference request from someone who never showed up for class, where to find certain types of data or articles, and so on–the sorts of questions a mentee will often ask.

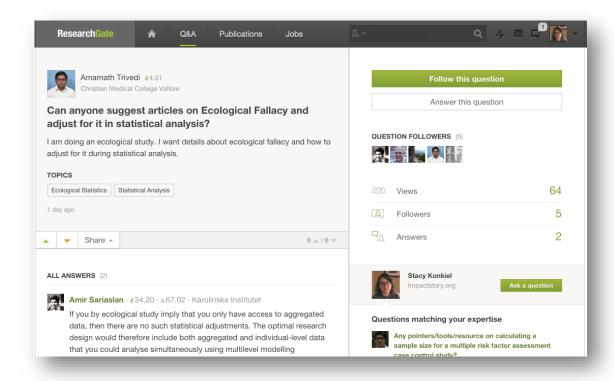
But there's more to Academia.SE than that. Basically, the site works like this: someone posts a question and others answer it. Members of the Academia.SE community can vote answers up or down, based on quality. Points are assigned based on both what you contribute (questions, answers, edits, and so on) and whether others have voted your content up or down. And you accumulate points over time, gaining reputation, badges, and the ability to do more things on the site as your points increase.

Here's how to use Academia.SE for distributed mentoring: browse Academia Stack Exchange by topic (and also wander over to <u>other Stack Exchanges</u>, like this one for <u>Chemistry</u> or this one for <u>Math</u>) to find questions that match your expertise. And once you've signed up for an account, you can begin to answer questions.

If you've chosen to use your real name when signing up-which I recommend-others will be able to recognize your contributions. But whether

pseudonymous or not, you're still helping others, which is the whole point of mentoring.

ResearchGate



Until now, we've mostly talked about ResearchGate as a platform to share your scholarship. But it also can be used to reach out to and help other scientists.

ResearchGate's Q&A feature allows scientists to pose a question to others that have listed certain skills and expertise in their profile, and anyone matching those skills can answer.

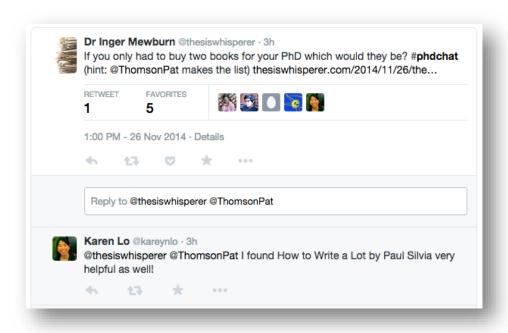
Here's how it works: under the "Topics" section of your profile, you can add and edit subject areas you've got expertise in. Then, on the Q&A section of the site, ResearchGate will prompt you with questions it thinks you can answer, based on the Topics you've listed in your profile.

Because ResearchGate is closely linked with your scholarly identity, it's easy to get recognition for your contributions. Points are also added to your RG score based on the number of questions you answer, which gamifies the experience for a bit of fun.

Some have <u>praised ResearchGate's Q&A feature over that of similar services</u>, but others criticize the site for <u>the "useless" questions posed in the Q&A</u>. You'll have

to judge for yourself whether the questions posed in your area of expertise are worth answering, and what value you can get out of engaging others on the site.

Twitter



Twitter can be used for all kinds of mentoring and support activities, especially when using and following hashtags.

Hashtags like <u>#madwriting</u> can be used for accountability: many share their writing schedule with others like you'd share your "days since my last cigarette" with friends—to hold you to a promise of productivity and responsibility.

General hashtags like <u>#phdchat</u>, <u>#gradchat</u>, and <u>#ecrchat</u> are often used by students and early career researchers to pose questions and ask advice, as are hashtags for disciplines. Check in on these hashtags regularly and answer any questions that arise or offer to share your experience and advice. Not everyone will be interested, but many will appreciate your willingness to take a few minutes out of your day to help them.

The same goes for those that you're already following on Twitter. Read through <u>your homepage Twitter stream</u> each time you login to see if anyone you're following could use advice or support; and support him or her in any way you can, to the extent that you're comfortable doing so.

One downside of using Twitter to mentor can be the sheer amount of unrelated tweets you have to sift through to find the stuff worth chatting about. Hashtags are a partial answer to that question, but right now, there's not much you can do to fully solve it.

Limitations of distributed mentoring

It can be hard to create a safe space for others using very public forums like those mentioned above. Similarly, it's difficult—and potentially risky—to offer access to opportunities and networks to someone you don't know very well.

One way around these problems is to make initial connections on publicfacing social media sites, if you want to, then exchange private contact information and continue mentoring via email, video chat, or telephone.

If you're a stranger to a potential mentee, go slowly — mentoring can get complicated fast, and over-commitment and over-involvement helps no one. To start with, it's better to offer too little of yourself than too much.

Homework

Choose two platforms to experiment with as a distributed mentor. Then, sit back and "lurk" for a while, spending your time reading previous Q&As to get a feel for how it works on each platform, and answer at least one question on each platform. Additionally, consider setting up a "/mentor" section of your website and formally joining the Diana Kimball's <u>Distributed Mentoring movement</u>.

Day 26: Expand your co-authorship base

In today's challenge, we'll share another way to increase your impacts beyond the Internet: co-authoring with a diverse group of colleagues.

Co-authoring is becoming <u>increasingly common in many fields</u>, for good reason: co-authoring "<u>makes research more fun</u>, <u>productive</u>, <u>and efficient</u>," helps researchers "<u>develop new ideas</u>, <u>extend our methodological toolkit</u>, <u>and share the workload</u>," allows senior researchers to share their expertise with <u>younger scientists</u>, and results in papers that some say <u>contain stronger ideas and writing</u>.

Co-authorship is also about bringing <u>your own expertise to the table</u>. Working with diverse co-authors can gain you a wider network of colleagues and increased connections in your field. And, if it's done well, it secures you important allies at all career stages. After all, you never know where your grad students or postdocs will end up some day!

Plus, when you publish with a broad group of people, you help break down the "old boys network" while increasing the reach of your work — <u>citation counts</u> <u>are higher</u> for papers with gender and ethnically diverse co-authors.

Let's learn more about what types of co-authors you can recruit a more diverse group of collaborators, how to work well with others, and some of the benefits and drawbacks of co-authorship in general.

What to look for in a co-author

In general, there are some things you should look for when recruiting coauthors outside of your own research group:

Complementary strengths

Are your potential collaborators excellent on theory, whereas you're the computational methods wiz? Does a postdoc in your group know the ins and outs of R, while a PhD student you mentor can bang out a top-rate literature review in 24 hours? Having collaborators who possess complementary strengths to your own can make it easy to divide and conquer writing a better paper in less time.

Philosophy

Does this person respond to emails in a timely manner and deliver on promises? Knowing up front when you can count on someone takes a lot of the headaches out of collaboration.

And does this person's working style jive well with your own? C. Titus Brown points out that he often ends up collaborating with others who aren't big on computational biology, but that their shared, relaxed approach to writing is what makes their partnerships successful.

Challenge

Good co-authors are also those who challenge you to do your best work. Researcher Bob Hinings <u>describes</u> his best and longest-lasting collaborator thusly: "[I find] that other people are interesting and usually have better ideas than I do so I can build on their contributions and get great satisfaction from the process, even though at times it can be challenging. Royston is always full of ideas and it is a challenge to keep up with him."

Collaborators with these characteristics can be found not only in your lab or university, but also in other countries, different disciplines, and at many stages of their career. Let's now dive into some ways you can look to diversify your group of collaborators.

Types of co-author diversity

Career stage

You can choose to co-author with scholars of your same career stage, more senior scholars, or with scholars who are junior to you. Each has its advantages and disadvantages, as CrookedTimber blog <u>documents</u>:

It is important for a junior scholar to show clearly his or her distinct contributions to a field and by co-authoring with senior scholars, some will be inclined to dismiss the work as that of the senior researcher...[When working with students] the junior scholar becomes the senior author due to his or her seniority as compared to the student co-author(s).

Co-authoring with junior scientists allows you to also <u>mentor</u> those with less experience. Consider giving full co-authorship credit to students who've helped on a project, rather than relegating their credit to the Acknowledgement section of your paper. It's an easy way to diversify your co-author list while giving students a major leg-up.

That said, don't make someone an author just to be nice. Respect the norms for your field and its <u>written ethical guidelines</u>. Many junior scholars bring their own strengths to the table. Ask them to take the lead on recording a <u>video</u> <u>abstract</u>, <u>blogging about your study</u>, or <u>drafting a press release</u>—your paper may be stronger for it!

Discipline

There are many good reasons to co-author with scientists from outside of your field (and even outside of academia): they can help your work reach different audiences, give an outside perspective on your field of study, and find ways to apply research in a clinical setting, among others.

For example, studies on sustainability science and data curation by hydrologist Praveen Kumar and information scientists Beth Plale and Margaret Hedstrom have been published from different perspectives in different venues. (Their work was both presented at the American Geophysical Union Fall Meeting in 2013 and published in the International Journal of Digital Curation.) Some may worry that this constitutes "double dipping" (publishing the same work twice) but if done properly, the focus and content of the two products are very different and get disciplinary information to their communities of interest.

And as the Dean of Drexel University's College of Nursing and Health Professions <u>points out</u>, collaboration can move research into practice, developing clinical technology and saving lives.

Gender & ethnic diversity

National Cancer Institute's Kenneth Gibbs Jr eloquently explains the argument for diverse research teams on the Voices blog:

[W]hen trying to solve complex problems (i.e., the sort of thing scientists are paid to do), progress often results from diverse perspectives. That is, the ability to see the problem differently, not simply "being smart," often is the key to a breakthrough. As a result, when groups of intelligent individuals are working to solve hard problems, the diversity of the problem solvers matters more than their individual ability. Thus, diversity is not distinct from enhancing overall quality—it is integral to achieving it.

And the literature backs him up: one recent study has found that gender diversity on research teams <u>leads to better quality publications</u>. Another study found that ethnically diverse teams are more creative and <u>produce higher quality ideas</u> than ethnically homogeneous groups (albeit among a sample population of undergraduates). Papers with ethnically diverse co-authors <u>also tend to get more citations</u>, too.

But perhaps the best argument for having a gender- and ethnically-diverse group of collaborators is summed up in this tweet:

If you only work with people who are like you, your work will only be FOR people like you. Embrace diversity, even if it's hard #opencon2014

— Penny Andrews (@pennyb) November 16, 2014

Output

A final way to consider diversity is in the context of research outputs. You can "co-author" not only journal articles, but also presentations, software, and other types of research outputs.

Impactstory co-founder Heather Piwowar once found a diverse group of collaborators by putting out a <u>call on Twitter</u> for others interested in organizing <u>a</u>

<u>panel</u> for the ASIS&T Annual Meeting in 2011. The panel was fun, very successful, and allowed her to work with a more diverse group of researchers than she had anticipated.

And collaborators on genomics researcher Holly Bik's <u>Phinch project</u> are industry software developers, not other researchers, which has led to the development of <u>a beautiful data visualization app</u> for large biological datasets.

So how do you find diverse co-authors? Let's explore some strategies.

How to find diverse co-authors

Mentors

Communications researcher Philip N. Howard <u>suggests</u> tapping your mentors for co-authorship opportunities:

The first step in finding opportunities to co-publish is to let your faculty mentors know that you are available to help if they ever get such invitations. Faculty sometimes receive unsolicited invitations to write an article or contribute a book chapter. Since faculty often plan long-term writing agendas, they may decline an unexpected invitation. They may be more likely to accept such an invitation if they know they can share the research and writing tasks with a co-author.

Mentors may also be able to connect you with colleagues who are interested in a similar subject who might be in need of a collaborator with whatever skills you possess (computational methods, quick-but-thorough literature review writing, mastery of Stata, and so on).

Conference buddies

Remember all those interesting researchers that you met while <u>hustling at conferences</u>? They can make great collaborators. Shoot them an email to say hello, and share an idea or two you've been thinking on to see if they want to collaborate.

Social networks

Take a look at your social networks on <u>Twitter</u>, <u>ResearchGate</u>, and <u>LinkedIn</u>. After being on social media for a few weeks or months you'll have met scientists in your network whose skills complement your own. Don't be afraid to reach out to potential co-authors with an idea for a paper or project.

Cold-call

The final—and most challenging—way to find co-authors is to "cold call" a researcher that you want to collaborate with but haven't met yet. Reach out to them via email or phone, send them an idea for a paper or two, and ask if they'd like to collaborate.

As a PhD student, Impactstory co-founder Jason Priem once emailed a researcher he admired with a request to co-author, offering to do the grunt work of writing a literature review. He was accepted onto the paper and now has a co-authorship credit with a respected researcher, broadening his co-authorship base and experience.

If you've got something to offer-a great idea, a complementary skill, or the ability to do something the lead author doesn't want to do-you can find opportunities that aren't readily apparent.

Making co-authorship work

So-you've got your co-authors lined up and ready to write. Now what?

Tseen Khoo of the Research Whisperer blog <u>says</u> all of the following are required for a successful co-authoring experience:

- A feasible, agreed-upon schedule for drafting and deadline for completion.
- A strong leader for the paper, someone who takes final responsibility for its proofing and submission (even though the actual tasks may be devolved to someone else...).
- Proper version control. That's why I emphasise the serial process of sending it around the team. When X has done their bit, they send it to Y (cc'ing the others), who then sends it to Z (cc'ing the others). Don't fiddle with the writing till you are the one the document is sent to.
- All members of the team to be committed to adding value to the publication, and doing their bit.

In the next section, we discuss co-author agreements, which can help you articulate the schedule and responsibilities that Tseen describes. Version control can be managed via email and Microsoft Word as described above, or by writing your paper on GitHub, WriteLaTeX, or Authorea.

Be sure to also <u>avoid gift and ghost authorship</u> (the practice of giving authorship credit to people who didn't contribute to the paper)-both are still practiced by some academics but are heavily frowned upon by publishers.

The tricky bits

There's no shortage of screeds that outline the many potential drawbacks to co-authoring papers:

• <u>Personality conflicts</u> can lead to blocked revisions and other stonewalling of papers prior to publication

- Excessive publishing with senior researchers can be seen as riding others' coattails and reflect poorly upon junior faculty in some cases
- <u>Sticky political situations</u> can arise when unresponsive co-authors won't approve a publication prior to submission
- <u>A lack of granular credit for authorship</u> makes it hard for each coauthor to get due credit
 - Some people work better alone than in groups

Credit for authorship is starting to see some progress: some journals require specific articulation of author contributions (like this statement for this paper) and the recently released CRediT taxonomy may fix this problem altogether, once widely adopted.

And it may sound hokey, but the near-magical fix for most of these problems is simple: create a co-author agreement that puts into writing the roles, division of labor, and a set of standards that everyone will agree to abide by (like "responding to an email within 48 hours", and so on). Elsevier Connect blog has posted a co-author agreement template, if you want to give it a try.

Co-authorship agreements are generally not legally-binding contracts, but instead ways for everyone to clarify the "rules of engagement" before a major writing project begins.

Homework

Brainstorm ideas for writing projects and a list of potential co-authors. If you want, you can divide the list into "low hanging fruit" and "dream co-authors" to make it easier to write.

If you've got the bandwidth to take on a new writing project right now, reach out to your potential co-authors in one of the ways described above and propose a collaboration. Otherwise, keep your list handy for a rainy day, when you'll have the time to take on a new project.

And if you don't have a diverse network of colleagues on your scholarly social media sites, you can start to fix that right now–start following 10 new people today.

Day 27: Track your scholarly social media and website impacts with Twitter, Sumall, and Google Analytics

Throughout this Impact Challenge, we've explored many ways for you to get your work to other researchers, the public, and other audiences via the Internet, by making connections at conferences, and other means.

To close out the Challenge, we'll share four techniques for measuring the success of your ongoing efforts, starting with basic social media and website analytics.

Social media and website analytics like those provided by Twitter, Sumall, and Google Analytics can tell you a lot about who's following your work, the potential exposure your work has received, and some limited bits about the diverse uses of your work, beyond simple page views and download counts.

Let's dig into four easy ways to explore the metrics behind your website and social media accounts.

Twitter Analytics

<u>Twitter</u> recently rolled out an Analytics feature, which can tell you not only how many followers you have, but also their demographics and how others are using your tweets. Are your tweets being retweeted or favorited very often? If so, what are the characteristics of those tweets with high engagement rates?

The wealth of data that Twitter provides can help you learn more about the audiences you're having an impact with (Is your work resonating in the countries whose populations you're studying? What subjects do your followers care most about? And so on). Here's how to get started with Twitter Analytics:

- Login to Twitter
- Click on your picture in the upper right-hand corner and then select "Analytics" from the drop-down menu

You'll see three tabs:

- **Tweet Activity**: includes the exposure your tweets has received, the general rates that others have engaged with your tweets, and allows you to explore the activity that individual tweets have received.
- **Followers**: breaks down the demographics of your followers, showing a growth chart,
- **Twitter Cards:** most useful for advanced academic users who want to promote blog content and rich media. We won't talk much about Twitter Cards in this chapter; check out this guide for more information.

Let's dig into the Tweet Activity and Followers pages.

Tweet Activity



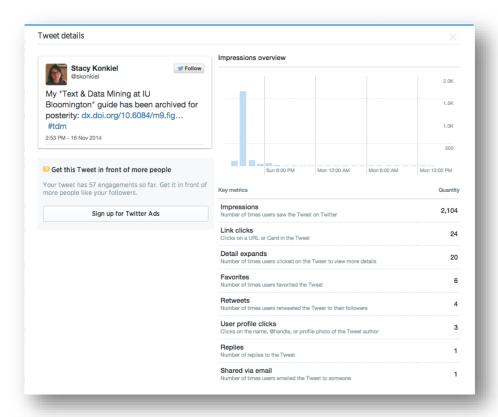
The first thing you'll see on this page is a bar chart of the number of Twitter impressions your tweets have received over the past 28 days. Twitter impressions are the number of times your tweets have appeared in someone else's timeline. You can think about this metric as being akin to the circulation statistics of a journal you're published in–it's not the same as readership, but it gives a sense of your overall exposure.

You'll also see summaries of your average Engagements on the right-hand side of the screen. How often have others clicked on your links, retweeted and favorited your tweets, and replied to you over the past 28 days? And how many of each of these actions have you received per day, on average?

In the middle of the screen, you'll see a list of your tweets in reverse chronological order, along with their individual number of impressions, engagements, and engagement rate.

Wee	Tweets and replies Promoted	Impressions	Engagements	Engagement rate
	Stacy Konkiel @skonkiel · Nov 16 My "Text & Data Mining at IU Bloomington" guide has been archived for posterity: dx.doi.org/10.6084/m9.fig #tdm View Tweet details	2,104	59	2.8%
	Stacy Konkiel @skonkiel - Nov 16 Uggghhh want to say here and follow all the #opencon2014 & #wsspe tweets, but I'm being told I have to go eat breakfast. Booool View Tweet details	231	3	1.3%
	Stacy Konkiel @skonkiel - Nov 15 I really need to get onto GitHub, it's solid for tracking the impacts of open source code blog.impactstory.org/impact-challen #PracticeWhatYouPreach Wiew Twert details	283	8	2.8%

You can click on "View Tweet details" for any individual tweet to get a drill down view of the metrics:



And this is where the good stuff lives. The chart at the top of the Tweet details page tells you the times when your tweet was most popular, and below it are the types of actions others took to engage with or share your tweet with others.

Over time, you can use this specific information, as well as more general information about your overall tweet activity, to learn when your tweets get the most impressions and engagement. That way, you can schedule your future tweets to post during similar times when sharing links to your blog posts, journal articles, and other scholarly products, so as many people see your work as possible.

Consider doing an informal analysis of your most popular tweets on a monthly basis. It'll allow you to see what types of tweets are the most popular with your followers, and you can use that insight to share future links in a similar way.

An easy way to do this informal analysis is to export your Tweet Activity data as a CSV file. Open it up in Excel and use the Sort function to see which of your tweets have the most impressions, retweets, and other types of engagement.

Beyond Tweet Activity, knowing about your followers is a great way to learn the demographics of your audience and what unexpected demographics you're reaching via Twitter.

951 followers as of 11/25/2014 (days shown in Pacific time) 960 720 480 240 0 27 Nov 19 Mar 9 Jul 29 Oct 18 Feb 10 Jun 30 Sep Interests Most unique interests ? 42% Biology 27% Biotech and biomedical N MA PA Your followers also follow

27% Nonfiction 24% Physics

14% Chemistry

Top interests ?

66% Science news

54% Books news and general info

39% PLOS Profile

32% altmetric · Profile

26% CameronNeylon · Profile

26% datadryad · Profile

39% (cc) creativecommons · Profile

Followers

Much of your Followers page is self-explanatory: How many followers do you have overall, and when did you experience a spike in follower growth? What are your followers most interested in? Where are they located? Who else do they follow? And what's their gender?

Top cities

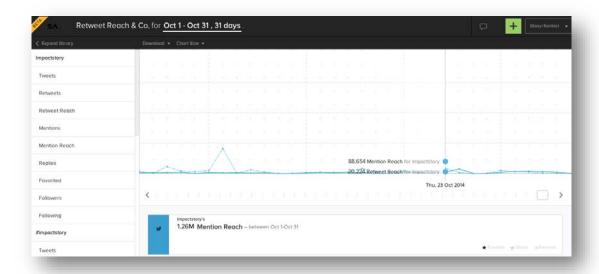
8% Indianapolis, US

You can compare information about your follower rate to information on your Tweet Activity page to see if any particular tweets or mentions can account for a dip or rise in follower growth.

And demographic information can be useful in other ways. For example, if you're a public health researcher studying drug use among teens in northern Europe, one way to prove that you're successful at reaching out to that group would be to dig into your Followers data and see where your followers live; who else they're following and their interests could give you insight as to their age and other demographic information.

Twitter Analytics give you rich data on your specific impacts on Twitter. Sumall, on the other hand, can give you a 50,000-foot view of your impacts across Twitter and other platforms.

Sumall



Sumall is a popular analytics platform that allows you to dig into your Twitter, Facebook, and other social media metrics. For the purposes of this challenge, we'll explore only the most revealing Twitter and Facebook metrics that Sumall provides, which are:

Twitter

- **Mentions:** How often did others use your handle to reply to you or comment about you?
- **Mention Reach:** How many people saw your name in their timeline?
- **Retweet Reach:** How many people saw a retweeted tweet of yours in their timeline?

Facebook

- **Post Likes:** How often are others "liking" your post? This can give a big boost to your posts' visibility among others' friend networks.
- **Post Comments:** How often are others engaging with your posts by commenting upon them?
- **Post Shares:** How often have others reshared your posts?

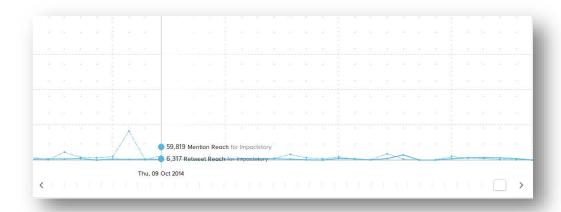
Here's how to explore these (and other) metrics: sign up for a free Sumall account using your Twitter or Facebook login, or by signing up with your email.

You'll be prompted to connect other social media accounts; I suggest starting with Twitter and Facebook. Google+ and WordPress.com statistics are also available, but not detailed enough to be useful, in my opinion.

Once your social media accounts are hooked up, you'll see the main Sumall interface. The Sumall interface is a bit buggy and suffers from some usability issues, but it is nonetheless illuminating for gaining quick and dirty insights into your metrics via charts and summaries.

On the left hand side of the screen are different metrics you can click on to add to the chart. The chart itself takes up most of the middle of the screen.

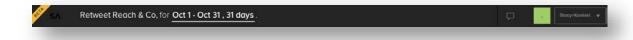
The chart lacks labeled X and Y axes; you have to hover over individual data points to see the dates at which particular metrics occurred and what those metric counts were:



Below the chart are summaries of the data points you've added to the chart for the specified date range:



At the top of the screen, you can set date ranges by clicking on the underlined dates. This allows you to compare data over certain periods:



All of the metrics that Sumall provides give you a good overview of the reach your work has had, and how engaged others are with you in general on various platforms. Sumall isn't as good as Twitter or the next two types of metrics providers at telling you about the performance of your specific posts.

Google Analytics

Google Analytics is a powerful platform that can tell you a lot about the traffic that your professional website and blog have received.

To get started, you need to sign up for a free Google Analytics account, then insert a small file onto your website that helps track your website's traffic: how many people are visiting your site, where are they coming from, how long are they staying, what's the most popular content on your website, and so on.

Hooking Google Analytics up to your blog is very easy if you're running a WordPress blog: here's a tutorial on how to do it in under 60 seconds.

Google Analytics provides a number of out-of-the-box reports that can be useful for learning about your site's visitors and the content that's most popular, as summarized by the University of Minnesota's Academic Health Center:

- **Audience overview** report provides an at-a-glance overview of all the key visitor metrics for your site.
- **Acquisition overview** report provides an at-a-glance overview of visitor-source metrics for your site.
- **Behavior overview** report provides an at-a-glance overview of the key page view metrics for your site.

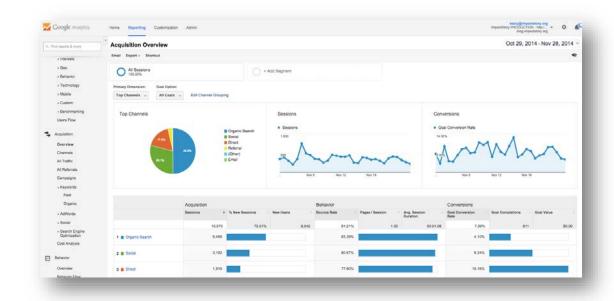
Let's take a closer look at each report.

Audience Overview Report



How many visitors have you received, and where do they hail from? Do visitors from certain countries stay longer on your website? How about visitors who're using a mobile browser versus a desktop browser? Knowing more about our visitors' demographics can tell us how good of a job we're doing at engaging certain communities, and also clues like "Are visitors to my website who're using mobile browsers leaving because they're having a hard time reading on their mobile phones?"

Acquisition Overview Report



Are more people searching for your site than they are being referred to your site from Twitter and Facebook? What social networks are sending the most traffic your way? Digging into this report, as well as drill-down views beneath the "Acquisition" section of the left-hand toolbar, can give you insight into how you might better promote your website or blog using social media.

Cogile Antisipides Herman Browning - Interview - Inter

Behavior Overview Report

What are the most popular pages on your website or blog? Above, we've screencapped traffic for our blog over the past month. We see on the bottom right the most popular pages, as well as a summary of traffic just below the overall traffic chart. This can not only tell you the content on your website or blog that's most eligible for resharing on social media as "evergreen content," but also can tell you whether blog posts aimed at engaging the public are working.

For a comprehensive list of Google Analytics resources, <u>check out KissMetrics' link roundup.</u>

What these platforms can't tell you

None of these platforms expose much of the underlying, qualitative data like, "In what context was I 'mentioned' on Twitter?" or "What did all those Facebook comments actually say?"

So, be sure to use the data you're gathering carefully!

Homework

Explore your Twitter Analytics data and sign up for Sumall or Google Analytics. After a few weeks' worth of metrics have accumulated, dig into the data with these questions in mind:

- Have there been spikes in engagement or traffic after I shared certain types of content?
- What do these services tell me about the demographics of my readers, visitors, and followers?
- How do those demographics differ from what I expected? How are they similar?
- How might I use the data these sites provide to document my engagement efforts for professional purposes?

Tomorrow, we'll dig into a key way to make use of your academic work trackable across the Web: minting permanent identifiers.

Day 28: Make your work permanent and trackable with DOIs

Throughout this book, we've touched on the importance of having persistent identifiers like DOIs for your research.

DOIs-digital object identifiers—make it easy for others to find your work by providing a permanent, unique identifier for each research output. That identifier will always redirect to where your work is stored, even if the URL changes, the journal you were published in disappears, and so on. All you have to do to make a DOI linkable is append "http://doi.org/" to the front of a DOI. For example, you can make doi:10.5061/dryad.585t4 linkable by writing it as "http://doi.org/10.5061/dryad.585t4".

DOIs also make it easy to track when and where your research is cited, discussed, shared, bookmarked, or otherwise used across the Internet. DOIs are widely used, understood by most researchers, and well supported by platforms that track impacts across the Web.

Let's dig into how you can get DOIs for articles, data, software, and other types of research outputs. It will set you up well for tomorrow's Challenge, which will cover services you can use to track the impacts of your work using DOIs and other permanent identifiers.

DOIs for articles & preprints

Many journals issue DOIs for journal articles automatically. So, getting a DOI for your articles can be as easy as publishing with a journal that issues them.

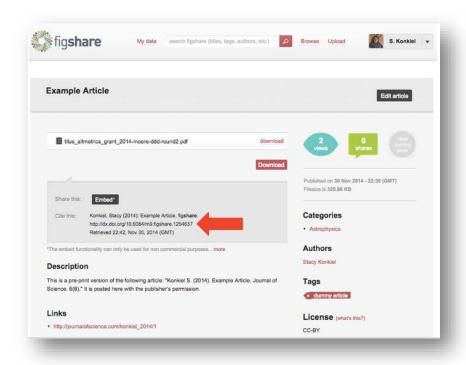
If you're planning to publish (or have already published) in a journal that doesn't offer DOIs, that's okay! You can archive a <u>preprint</u> or publisher-accepted postprint (peer-reviewed final draft of the article that's not the formatted, published version) of your article on a platform that issues DOIs like <u>Figshare</u>, <u>Zenodo</u>, <u>BioRxiv</u>, or <u>ResearchGate</u>. Some institutional repositories also can mint DOIs. Here's how.

Figshare, Zenodo, BioRxiv & some institutional repositories

All of these services work pretty much the same for issuing DOIs: you upload an article and a DOI is assigned automatically. We'll briefly walk you through the process here using Figshare as an example.

- Login to Figshare and click the "Upload" link in the upper-right corner.
- Upload the article and click the "Add info" link.
- Add a description of the file (metadata). Be as thorough as possible when describing it; rich descriptions can make it easier to find your article using search engines.

- Some journals require that you add a statement to the archived preprint. It's usually something along the lines of: "This is a pre-print version of the following article: [full citation pointing to publisher's website]. It is posted here with the publisher's permission." You can usually find the statement on the "Author's Rights" section of your journal's website, and some relevant policies can be found on Sherpa/Romeo.
- Make the article "Public" (select the radio button for Public immediately to the left of the "Save changes" button.
 - On the item record that's now live on the Web, you'll see your DOI:



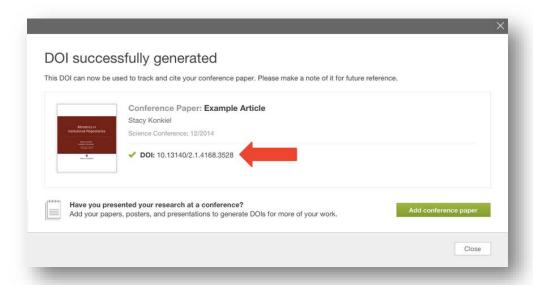
The placement of the DOI will vary depending upon what platform you've uploaded it to, but the result will be the same: as soon as you've completed the upload process, a DOI will be automatically generated.

ResearchGate

ResearchGate recently started allowing users to mint DOIs for articles that don't yet have one, but it's not done automatically:

- Login to ResearchGate
- On your profile page, click "Add your publications".
- Select "All other research" in the pop-up box.

- Upload your article and add descriptive information, click "Save".
- On your item record, click the "Generate a DOI" button at the top-right of the page.
- Confirm your publication details are correct and that the article doesn't already have a DOI. Click "Generate a DOI" again.
 - You'll now see your DOI:



DOIs for data

You can also get DOIs for research data thanks to disciplinary data repositories like Dryad, KNB, and many others found on re3data.org. Plus, some national data repositories like ANDS will issue DOIs for data, too.

When should you mint a DOI for your data? Natasha Simons of ANDS <u>says</u> a DOI should be applied when:

- The data will be exposed and forms part of the scholarly record [this can be when you're publishing supplementary data alongside a paper, "opening up" unpublished datasets, or otherwise making your data available to others];
- The data can be kept persistent [it won't have to be removed from the repository];
- And the <u>minimum DataCite metadata schema requirements</u> can be met [you'll need to provide information on the dataset's Creator, Title, Publisher, and Publication Year; the Publisher information is communicated by your repository]

Getting a DOI for your data is usually as easy as just depositing your data. Nearly all data repositories that issue DOIs mint them automatically for new deposits.

Many repositories only issue a single DOI for a dataset, even if "versioning" (uploading of newer datasets, with the history of changes to the files preserved on the repository) is allowed.

But if you've got data that will be updated over time, you might need to use a repository that will issue a versioned DOI. Versioned DOIs can reflect what version of the data others are citing, making references to older versions of the dataset possible.

Dryad is just one repository that <u>issues versioned DOIs</u>. Here's how they do it:

- You upload your data to the repository and get your base DOI (e.g. doi:10.5061/dryad.585t4)
- When you upload a new version, Dryad will create a new suffix to the DOI that points to that particular version of the dataset (e.g. doi:10.5061/dryad.585t4.v2)

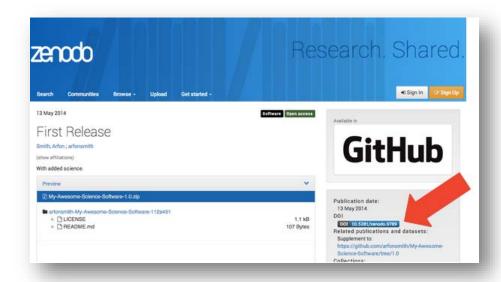
If you don't have a national, disciplinary, or other specialized repository available to share your data, you can always <u>deposit it to Figshare or Zenodo</u>, where a DOI will be minted automatically.

DOIs for software

It's easy to mint a DOI for your research software *if* you use GitHub to host your software and then connect it to your Figshare or Zenodo account. Here's how it works:

- Choose the public GitHub repository* you want a DOI for
- Login to Figshare or Zenodo
- Connect your Figshare or Zenodo account to GitHub
- Use Figshare or Zenodo to select the GitHub repository you want a DOI for
- Check that your GitHub repository is set to communicate with Figshare or Zenodo
 - Create a new "release" of your GitHub repository
- Head back over to Figshare or Zenodo and make sure the full description of your software package appears in the Uploads section, then submit your software

• An automatically minted DOI will appear on the item record page. Here's what that looks like on Zenodo:



In depth instructions to minting DOIs for software can be found on **GitHub**.

If you're not on GitHub but want to mint DOIs for your software, you can upload your software and the accompanying documentation as binary files to Figshare and Zenodo, like you did with research data in the step above.

* Confusingly (for those of us more accustomed to data repositories and institutional repositories), GitHub calls specific software packages "repositories".

DOIs for open peer reviews

An increasing number of journals and peer review platforms are <u>issuing DOIs</u> <u>for open peer reviews</u>.

If you've openly reviewed a journal article, there are two main ways you can get a DOI for your reviews:

- Review for a journal like <u>PeerJ</u> or peer review platform like <u>Publons</u> that issues DOIs automatically
- Archive your review in a repository that issues DOIs, like Figshare or Zenodo

DOIs will allow others to easily find your open peer reviews and also allow you to track discussions and reuse of your peer reviews across the Web, like you can with other scholarly outputs. That's a major advantage over private, anonymous peer reviews, which are never seen beyond your editor and the article's author and

can rarely be claimed for credit towards the enormous amount of intellectual work they require.

DOIs for everything else

You can easily mint DOIs for your slide decks, posters, and even your <u>blog</u> <u>posts</u> if you upload them to Zenodo or Figshare, following the instructions outlined above.

Limitations

Many of the limitations of DOIs are caused by human error. For example, though it's ideal for your links to your work to use the DOI link (more on that below), you can't control whether others will actually do it. That's because research is often shared online using regular, easy-to-copy URLs instead of DOIs.

The best you can do is provide the DOI on the same page where the research output is shared. List it front and center, along with a preferred citation, so that anyone who shares your work will hopefully see it and follow your instructions.

It's also bad form to create more than one DOI for a research output. So don't mint a DOI for anything that's already got one.

The final limitation is that we're all counting on the publisher or service provider to keep the DOI record up to date with the DOI registration agency (most commonly <u>Crossref</u> or <u>DataCite</u>). And keeping records up-to-date is what ensures that DOIs point to the correct place on the Web (which you'll remember is useful if URLs change or journals fold).

Most reputable publishers do this, but some publishers and repositories may not be as responsible (for example, as of this writing, as far as we know, ResearchGate doesn't have a documented preservation policy). If you aren't sure if the publisher's archiving policy is up to snuff, ask them about it.

Homework

First, mint DOIs for your 5 most important research outputs that don't already have them. Bonus points if some of those outputs are not articles.

Once you have your DOIs, use them:

- Put them onto your CV alongside your research products;
- Update <u>your ArXiv preprint</u> metadata to point to them;
- Put clearly-labeled preferred citations that include DOIs into your dataset or software documentation; and

• Encourage others to always link to your review using the DOI resolver link (these are created by putting "http://doi.org/" in front of your DOI; here's an example of what one looks like: http://doi.org/10.7287/peerj.603v0.1/reviews/2).

Now that you've got DOIs for your most important research outputs, we'll explore how you can use altmetrics and impact-tracking services like Altmetric.com and Impactstory to discover how often they're cited, saved, shared, discussed, and otherwise reused online.

Day 29: Discover when your work is discussed & shared online

You're <u>engaging other scholars online</u>; they're <u>discussing your open access</u> <u>work</u> with you and other scientists; and you've <u>minted identifiers</u> that'll let you track your work's reach on the Web.

Now comes the fun part: measuring your research's many impacts.

In today's challenge, we'll explore how the services you've signed up for—Academia.edu, Slideshare, Figshare, and so on—and others can be used to track the impacts of all of your research outputs.

Then tomorrow, we'll cover our webapp, Impactstory, which brings together many of these metrics into a single, comprehensive impact profile.

Let's dig in!

Citations

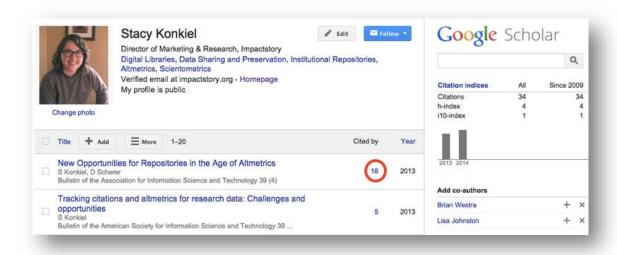
Citations are the "coin of the realm" to track scholarly impact, not only for your articles but also your research data, too. You can get citation alerts in three main ways: from Google Scholar, from traditional citation indices, and from newer databases like the Data Citation Index.

Google Scholar Citations alerts

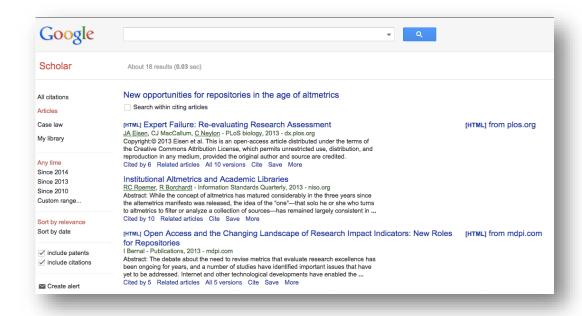
Your <u>Google Scholar</u> profile can be used to alert you whenever your articles receive new citations online. It tracks any citations to your publications that occur on the scholarly web.

If you haven't <u>already signed up for citation alerts</u>, visit your profile page and click the blue "Follow" button at the top of your profile. Select "Follow new citations" link and enter your preferred email address, then click "Create alert." Notifications will arrive in your inbox when you receive new citations.

If you want to explore who has already cited you, visit your profile page, and click on the number of citations to the right of the article you want to track citations for:



On the next page, you'll see a list of all the papers that have cited you, some of which you'll be able to click-through and read:



Remember: Google Scholar indexes citations it finds in a wide range of scholarly document (white papers, slide decks, and of course journal articles are all fair game) and in documents of any language. The data pool is also mixed with respect to peer-review status; some of these citations will be in the peer-reviewed literature, some will not. This means that your citation count on Google Scholar may be larger than on other citation services.

Web of Knowledge

Traditional citation indices like Scopus and Web of Knowledge are another good way to get citation alerts delivered to your inbox. These services are more selective in scope, so you'll be notified only when your work is cited by vetted, peer-reviewed publications.

However, they only track citations for select journal articles and book chapters—a far cry from the diverse citations that are available from Google Scholar. Another drawback: your institution must have a subscription for you to set alerts.

Web of Knowledge offers articlelevel citation alerts. To create an alert, you first have to register with Web of Knowledge by clicking the "Sign In" button at the top right of the screen, then selecting "Register".

Then, set your preferred database to the Web of Science Core Collection (alerts cannot be set up across all databases at once). To do that, click the orange arrow next to "All Databases" to the right of "Search" in the top-left corner. You'll get a drop-down list of databases, from which you should select "Web of Science Core Collection."



Now you're ready to create an alert. On the Basic Search screen, search for your article by its title. Click on the appropriate title to get to the article page. In the upper right hand corner of the record, you'll find the Citation Network box. Click "Create citation alert." Let Web of Knowledge know your preferred email address, then save your alert.

Scopus

In <u>Scopus</u>, you can set up alerts for both articles and authors. To create an alert for an article, search for it and then and click on the title in your search results. Once you're on the Article Abstract screen, you will see a list of papers that cite your article on the right-hand side. To set your alert, click "Set alert" under "Inform me when this document is cited in Scopus."

To set an <u>author-level alert</u>, click the Author Search tab on the Scopus homepage and run a search for your name. If multiple results are returned, check the author affiliation and subjects listed to find your correct author profile. Next, click on your author profile link. On your author details page, follow the "Get citation alerts" link, and list your saved alert, set an email address, and select your preferred frequency of alerts. Once you're finished, save your alert.

With alerts set for all three of these services, you'll now be notified when your work is cited in virtually any publication in the world! But citations only capture a very specific form of scholarly impact. How do we learn about other uses of your articles?

Data Citation Index

If you've deposited your data into a repository that <u>assigns a DOI</u>, the <u>Data Citation Index</u> (DCI) is often the best way to learn if your dataset has been cited in the literature.

To create an alert, you'll need a subscription to the service, so check with your institution to see if you have access. If you do, you can set up an alert by first creating a personal registration with the Data Citation Index; click the "Sign In" button at the top right of the screen, then select "Register". (If you're already registered with Web of Knowledge to get citation alerts for your articles, there's no need to set up a separate registration.)

Then, set your preferred database to the Data Citation Index by clicking the orange arrow next to "All Databases" to the right of "Search" in the top-left corner. You'll get a drop-down list of databases; select "Data Citation Index."

Now you're ready to create an alert. On the Basic Search screen, search for your dataset by its title. Click on the appropriate title to get to the dataset's item record. In the upper right hand corner of the record, you'll find the Citation Network box. Click "Create citation alert." Let the Data Citation Index know your preferred email address, then save your alert.

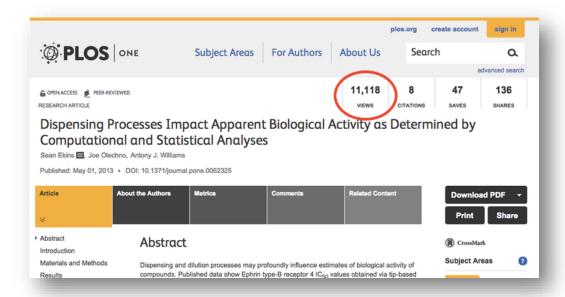
Page views & downloads

How many people are reading your work? While you can't be certain that article page views and full-text downloads mean people are reading your articles, many scientists still find these measures to be a good proxy. And some repositories like Dryad and Figshare provide this information, too, so you can track the interest in the datasets, slides, and other content you upload.

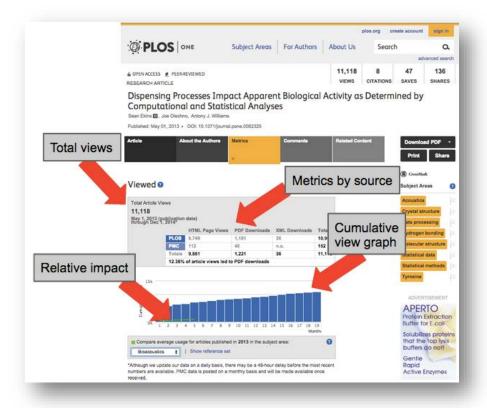
Publisher websites

Publishers like <u>PLOS</u> display page view and download information for individual articles on their website, alongside other data like citations and altmetrics.

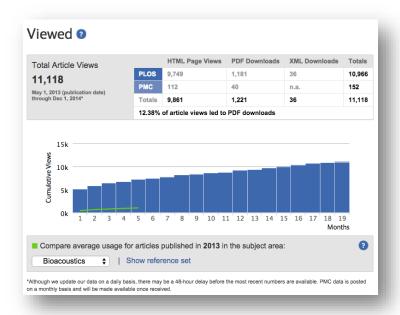
Let's take a closer look at PLOS's page view & download metrics. PLOS combines page views that happen on their website with page views and downloads the article receives on PubMed Central in a single view on the top of the article's page:



If you click on the metrics tab of the article page, you get more useful information: total views and download numbers by source, over time; a basic impact graph; and a graph of the relative popularity of this article, compared to articles in the same discipline that are published in PLOS:



Here's a closer look at the views and downloads grid and graph:



On articles' Metrics pages, PLOS also provides other data, including citations from a variety of sources, social media and scholarly bookmarking services.

For PLOS and many other publishers, these metrics are only available on their websites. Some pioneering publishers go one step further, sending you an email when you've got new page views and downloads on their site.

Publisher notifications

In addition to displaying page views and downloads on their websites, publishers like <u>Peerl</u> and <u>Frontiers</u> send notification emails as a service to their authors.

If you're a *PeerJ* author, you should receive notification emails by default once your article is published. But if you want to check if your notifications are enabled, sign into PeerJ.com, and click your name in the upper right hand corner. Select "Settings." Choose "Notification Settings" on the left nav bar, and then select the "Summary" tab. You can then choose to receive daily or weekly summary emails for articles you're following.

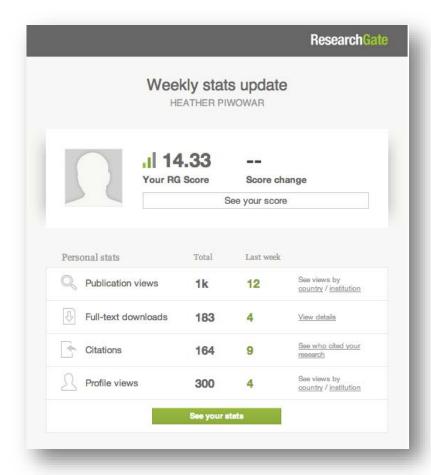
In Frontiers journals, it works like this: once logged in, click the arrow next to your name on the upper left-hand side and select "Settings." On the left-hand nav bar, choose "Messages," and under the "Other emails" section, check the box next to "Frontiers monthly impact digest."

Both publishers aggregate activity for all of the publications you've published with them, so no need to worry about multiple emails crowding your inbox at once.

Not a *PeerJ* or Frontiers author? Contact your publisher to find out if they offer notifications for metrics related to articles you've published.

Impactstory also offers alerts that include this data for PLOS articles, so you're notified any time your articles get new metrics, including page views and downloads. (We'll talk more about all the data we provide in tomorrow's challenge.)

ResearchGate & Academia.edu

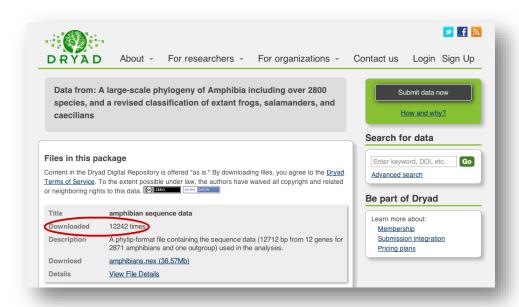


Both <u>ResearchGate</u> and <u>Academia.edu</u> will report how many people have viewed and downloaded your paper on their site.

You can turn on email notifications for page views and downloads by visiting "Settings" (on both sites, click the triangle in the upper right-hand corner of your screen). Then, click on the "Notifications" tab in the sidebar menu, and check off the types of emails you want to receive.

On Academia.edu, the option to receive page view & download notifications are described as "There's new activity in my analytics (includes "Analytics Snapshot")"; on ResearchGate, it's under Scheduled Emails > "Weekly update about my personal stats and RG Score."

Dryad and Figshare



<u>Dryad</u> data repository and <u>Figshare</u> both display page view and download information on their web sites, but they don't send notification emails when new downloads happen. You can import your Dryad and Figshare-hosted metrics to Impactstory to get notification emails; more on that tomorrow.

Post-publication peer review

Some articles garner comments as a form of post-publication peer review.

PeerJ

PeerJ authors are notified any time their articles get a comment. To make sure you're notified when you receive new *PeerJ* comments, login to *PeerJ* and go to "Settings" > "Notification Settings" and then click on the "Email" tab. There, check the box next to "Someone posts feedback on an article I wrote" and select all the options under the "Activity on my articles" section, too.

ResearchGate

Any work that's uploaded to ResearchGate can be commented upon. To set your ResearchGate notifications, login to the site and navigate to <u>"Settings" > "Notifications."</u> Check the boxes next to "Someone reviews one of my publications" and "Someone bookmarks or comments on my publication." (While you're there, you can also check off "One of my publications was cited"–it'll alert you any time another ResearchGate document cites one of your papers that's on ResearchGate.)

Altmetric.com

Reviews can also be tracked via Altmetric.com alerts. Post-publication peer reviews from <u>Publons</u> and <u>PubPeer</u> are <u>included in Altmetric.com reports and notification emails</u>. Instructions for signing up for Altmetric.com notifications can be found below.

PubChase

Article recommendation platform <u>PubChase</u> can also be used to set up notifications for PubPeer comments and reviews that your articles receive. To set it up, first add your articles to your PubChase library (either by searching and adding papers one-by-one, or by <u>syncing PubChase with your Mendeley account</u>). Then, hover over the Account icon in the upper-right hand corner, and select "My Account." Click "Email Settings" on the left-hand navigation bar, and then check the box next to "PubPeer comments" to get your alerts.

Social media metrics via Altmetric.com

What are other researchers saying about your articles around the water cooler? It used to be that we couldn't track these informal conversations, but now we're able to listen in using social media sites like Twitter and on blogs. Here's how.

Altmetric.com allows you to track altmetrics and receive notifications for any article that you have published that's got a DOI, PubMed ID, ArXiv ID, or Handle. It's a type of altmetrics aggregator, very similar to Impactstory and PlumX.

First, install the Altmetric.com browser bookmarklet (visit this page and drag the "Altmetric It!" button into your browser menu bar). Then, find your article on the publisher's website and click the "Altmetric it!" button. The altmetrics for your article will appear in the upper right-hand side of your browser window, in a pop-up box similar to the one at right.

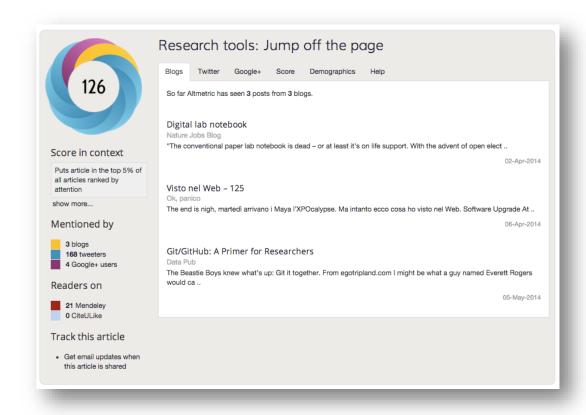
Next, follow the "Click for more details" link in the Altmetric pop-up. You'll be taken to a detailed report of your metrics and the underlying qualitative data.

This report (seen below) shows you not only the numbers, but also lets you read the individual blogs, policy documents, newspapers,



and other online outlets that mention your article. The donut visualization at the top-left of the report includes <u>a single, weighted score</u> that attempts to sum up the attention that your work has received. Below the visualization is contextual

information that shows you how the article's metrics compare to those of articles published in the same year, journal, and so on.



At the bottom left-hand corner of the page, you can sign up to receive notifications whenever someone mentions your article online.

The only drawback of Altmetric.com's notification emails is that you have to sign up for a new notification for each article. This can cause inbox mayhem if you are tracking many publications.

Social media metrics via Impactstory

Impactstory provides many of the same metrics as Altmetric.com, rolled up into a single profile. (In fact, Altmetric's such an ace data source that we use some of their data to in our reports.) More on that tomorrow!

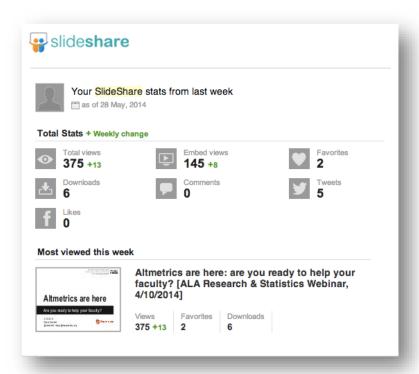
Software metrics via GitHub

If you use the collaborative coding website <u>GitHub</u> to store and work with research data or software, you can see metrics and enable email alerts for certain types of activities.

As we discussed in <u>our GitHub challenge</u>, GitHub has some good metrics that can tell you how your code is being reused, commented upon, and so on–in real time. Some GitHub metrics that you'll find on individual repository pages include:

- **Stars:** some GitHub users "star" repositories as a means of showing appreciation for your work; others use them as a bookmark, so they can find and revisit your code more easily.
- **Forks:** a "fork" is created when another user copies one of your repositories so they can explore and experiment without affecting your original code. It's a good signal of reuse.
- **Pull requests:** When a user wants to suggest changes to your code, they'll issue a pull request. The number of pull request and identities of contributors can be good indicators of how collaborative your work is and who your high-profile collaborators are.

To enable notifications for your stars and forks, you'll need to connect your GitHub account to Impactstory–GitHub itself doesn't report on that just yet.



Slideshare

Though <u>Slideshare</u> is best known for allowing users to view and share slide decks, some researchers also use it to share conference posters. The platform sends users detailed weekly alert emails about new metrics their slide decks and posters

have received, including the number of total views, downloads, comments, favorites, tweets, and likes.

Here's how to view your Slideshare metrics on the Web: on your slide deck's page, scroll down to find the "Statistics" tab under the description section, then click on it. Here you'll find all the metrics related to others' interest in your slides.

Some metrics you might accumulate include:

- **Views** on both Slideshare and other websites
- **Embeds,** which can tell you how many times and where others have shared your slides
- **Downloads**, which can tell you if others have liked your slides enough to save them to their computer
- **Comments**, which themselves can tell you what others think about your slides
 - **Likes**, which as you might guess can tell you if others like your work

To receive notification emails, go to <u>Slideshare.net</u> and click the profile icon in the upper right-hand corner of the page. Then, click "Email" in the left-hand navigation bar, and check the "With the statistics of my content" box to start receiving your weekly notification emails.

Vimeo and Youtube metrics

<u>Vimeo</u> and <u>Youtube</u> both provide a solid suite of statistics for videos hosted on their sites, and you can use those metrics to track the impact of your video research outputs (like your <u>video abstracts</u>).

<u>Vimeo</u> tracks likes, comments, and plays for videos hosted on their platform; <u>Youtube</u> reports the same, plus dislikes and favorites. You can view these metrics beneath the your videos on each platform.

To get metrics notifications for your videos hosted on either of these sites, you'll need to add links to your videos to your Impactstory profile. More on that tomorrow!

Limitations

There are so many ways to collect metrics for your work; it's hard to keep up. And even aggregators that attempt to collect these metrics for you into a single place–like Impactstory, Altmetric.com, and PlumX–don't collect everything.

We recommend taking a hybrid approach to staying on top of your impacts: sign up for an aggregator that can collect Twitter, blog, Slideshare, Figshare, etc. metrics into one place for you, then supplement any metrics they can't track (for

example, Web of Knowledge or Data Citation Index citations) with email notifications from specific services.

Homework

Do some serious thinking about what metrics mean the most to you. And with those metrics in mind, sign up for the appropriate notification emails that'll keep you up-to-date on your impacts.

Tomorrow is the final day of the Impact Challenge, and we're covering the subject we know the best: Impactstory!

Day 30: Create a comprehensive impact profile at Impactstory

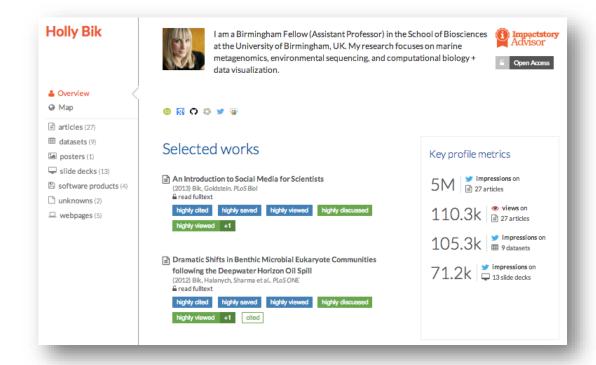
Yesterday, we covered all the ways that you can dig up evidence of your impacts online. You learned that <u>metrics for your research exist across more than 18 platforms</u> all around the Web. That's a lot of data to manage.

What you need now is a single place to view your metrics (and the underlying qualitative data). You also need a way to share your metrics with others. That's where Impactstory comes in.

<u>Impactstory</u> is a non-profit webapp that compiles data from across the Web on how often (and by whom) your research is being shared, saved, discussed, cited and more.

We automate much of the work of collecting impact metrics, so you don't have to. And we provide rich, contextualized, open metrics alongside the underlying data, so you can learn a lot in one place (and reuse most of the metrics however you want).

In today's challenge, you'll explore creating a comprehensive impact profile on Impactstory.org. Let's get started!



Step 1. Explore an Impactstory profile

One of our favorite Impactstory profiles belongs to genomics researcher <u>Holly Bik</u>. Her profile epitomizes all of the cool things you can do on Impactstory:

- Discover metrics for your work from scholarly and popular social media
- Import all of your papers, datasets, software, slide decks, and other scholarly products into a single profile
- Highlight the scholarship and metrics you're most proud of in your "Selected Works" and "Key Metrics" sections of your profile homepage
- Learn who's talking about your work and what they're saying by drilling down into the metrics and underlying data
- Connect your account to third-party services like Figshare, ORCID, and GitHub to get automatic updates & import your new research

Go ahead and poke around a bit on <u>Holly's profile</u>. Take 5 minutes or so to explore. Seriously, go explore—we'll wait here.

Not everyone's profile will look like Holly's, to be sure. But no matter your career stage, chances are that an Impactstory profile will give you a lot of insight as to your many research impacts.

Step 2. Sign up for Impactstory

Now let's get you set up with a free Impactstory trial.

You might have heard: we're a subscription-based service (\$60/year or \$10/month). But we're not going to make a hard pitch for you to subscribe.

Instead, you're going to sign up for a free, 30 day trial, during which you'll get a better chance to decide if Impactstory is right for you (and worth paying for*). Here's how: head to http://impactstory.org/signup and provide your name and email, then choose a password

That's it! Easy, huh?

Next, let's walk through the simple steps it takes to get your scholarship onto Impactstory.

* We also offer fee waivers for anyone who can't afford a subscription.

Step 3. Automate your Impactstory profile

Import and connect						
There are three ways to populat Link accounts below to continuous add products individually by ID, or send us an email whenever you pul	import your research,					
figshare	off					
github Social coding	off					
Google	off					
ORCID	off					

You're now on the "Master Import Controls" page.

Next, you'll be prompted to connect your accounts from across the Web. This will allow you to batch import many of your publications, software, data, and other scholarship that's hosted elsewhere. And, once connected, we'll automatically import your new scholarship, as it's created.

As of this writing, you can connect <u>Figshare, ORCID, GitHub, Publons, Slideshare, and Twitter</u> for auto-importing of data and scholarship. You can also <u>add</u> <u>a link to your Google Scholar profile and import those publications</u> all at once using BibTeX.

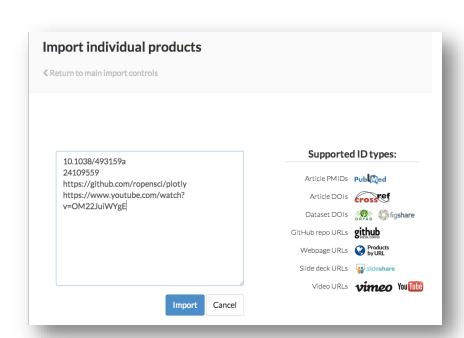
We'll use <u>Figshare</u> as an example for how to connect your Impactstory account to other services. To get started:

- Click on the tile for the service you want to connect (in this case, Figshare)
- Open a new browser window and get your Figshare author page URL (login to Figshare, click on your name and photo in the upper-right hand corner, click "My profile," and then copy the URL that appears in your browser's address bar.)
- Switch back to the Impactstory browser window. In the Figshare popup, paste your Figshare author page URL into the box under "Figshare author page URL"
 - Click the green "Connect to Figshare" button

You're now connected!

Impactstory will then auto-import all of your public Figshare products and their metrics, and also update your Impactstory profile weekly with any new Figshare products and metrics.

The instructions above work for ORCID, GitHub, Publons, Slideshare, and Twitter, too. Just login to that appropriate web service to get your URL, username, or ORCID ID, and click the appropriate tile on Impactstory "Master import controls" page to insert the URL.



Step 4. Import your other scholarship to Impactstory

It's possible that you've got scholarly products squirreled away in places we can't automatically import from. Maybe you've contributed to a GitHub repository that you don't own, have a standalone website devoted to a research project, or have a <u>video abstract</u> for one of your articles.

No matter what you want to add to your profile as an individual product, here's how to do it.

From the Main Import Controls page:

- Click the "Add products individually by ID" link
- On the next page, paste the identifier(s) for the product(s) you want to track. If you are adding more than one individual product at a time, be sure to add only one identifier per line.

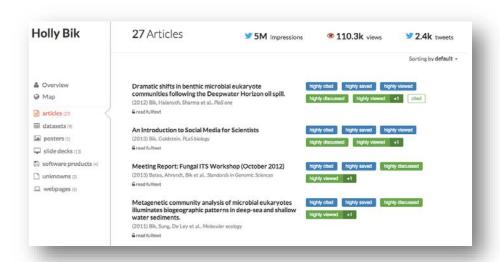
• Once you've added the identifiers for all the products you want to track, click the blue "Import" button. The products will be added to your profile.

Step 5. Step back and admire your profile so far

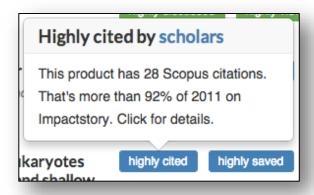
Now you've got all your scholarly products on Impactstory. Let's take a look at how they look on the genre pages.

From your main profile page, click on the links in the left-hand navigation bar that correspond with the scholarly genre you want to explore.

For example, if you've got articles on your profile, go ahead and click on the "articles" link. Here's what Holly Bik's Articles page looks like:



You can hover over any of the blue or green badges to see the underlying data that document your scholarly and public impacts:

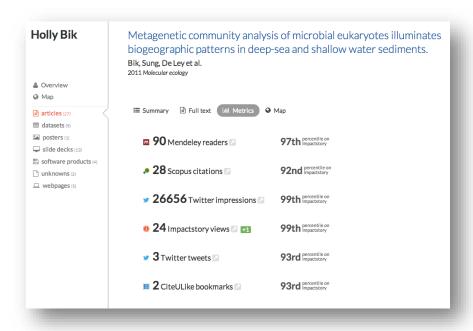


Or you can click on any title to see an in-depth description of the article and a summary of metrics. We auto-import as much information as possible, including your full citation and your abstract:

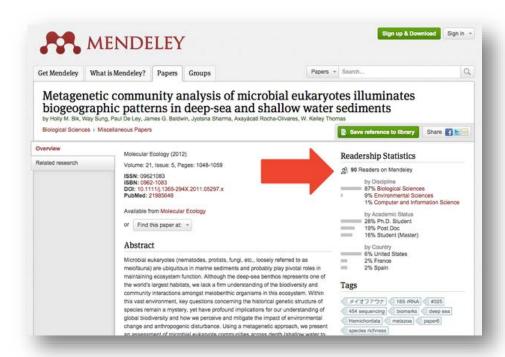


Click on the "Full-text" icon to see an embedded version of your paper (and you can add a link to the full-text, Open Access version of your paper, if we didn't auto-import it for you–more on that below).

Click on the "Metrics" icon to see a drill-down view of your paper's metrics, along with important context that we provide in <u>percentiles</u>:



And you can click through any of the specific metrics to go to the data provider website, where you can explore the underlying data:



Back on your profile, you can also click the "Map" icon to learn about where in the world your paper has been bookmarked on Mendeley, tweeted about, or viewed on Impactstory.org:



Hovering over any country gives you more information about the impacts that have happened in that country; you can also drill down into each country's activity using the handy table at the lower-left of the page.

Step 6. Add links to your open access work

Now that you've seen all the ways your Open Access work is being reused online, let's get more of your OA work onto your Impactstory profile.

For any article, dataset, or other scholarly product that's not already embedded in your Impactstory profile:

- Go to the main item page
- Click on the "Full-text" icon
- You'll see an option to "Share your article" by uploading a full-text copy of your work or providing a URL.
 - Upload your article or provide your URL, and you're done!

Step 7. Pretty up your profile

Now it's time to put the finishing touches on your entire profile.

On your main profile page, add a short bio and a photo of yourself.

On your product pages for your most important research, add keywords and abstracts that'll help others find your work more easily.

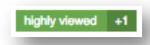
To add the bio, keywords, and abstract, just click on the field you want to edit, type in what you want to add, and then click the blue checkmark icon to save it to your profile.

That's it! You now have a beautiful, complete Impactstory profile! Congrats!

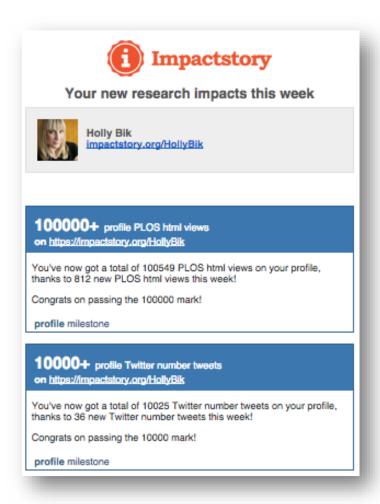
Step 8. Dig into your metrics & notification emails

Now that your profile is complete, you'll have 30 days' worth of free trial to discover new metrics that your work has received.

Impactstory updates your profile with new metrics (and imports new products) on a weekly basis. Any new metrics will appear on your badges like so:



We also will send you notification emails on a weekly basis that highlight your top 10 "greatest hits" metrics for the week.



Your notification emails will usually include milestone metrics ("You've just passed 2,000 views on your Slideshare slides!") and sometimes it will include incremental metrics for your less popular research materials ("You got 1 Figshare view for your 2001 dataset, 'Datum Obscura.' That brings your total views up to 7.")

These notifications include contextual information, such as your total number of metrics to date for that item, and what percentile your item's in, relative to other research products created in the same year or published in the same discipline.

If you'd rather receive your Notification emails more frequently, less frequently, or not at all, you can change your settings at impactstory.org/settings/notifications.

Step 9. Share your success far and wide

Now that you've got your Open impact data, how will you use it?

Well, some researchers use altmetrics to document their impact for grant applications and tenure. We've also heard of scientists using them for promotion and annual reviews. Consider whether these scenarios would work for you. The latter scenario in particular is a great way to test the water, to see if your supervisors and colleagues are amenable to altmetrics.

You can also share altmetrics-inspired warm and fuzzies with your collaborators. Email your co-authors with a link to your articles on Impactstory, so they can check out the data for themselves. It's a great feeling when you see in black and white the effect your work's having on others. Share it! ©

We also suggest putting a link to your Impactstory profile on your website or blog, and in your email signature. All super-effective ways to quickly share both your research and your impact with your colleagues.

When sharing your Impactstory data and profile, keep in mind that numbers are only one useful part of the data. You can print out your impact map and include it in an annual review; quote from open peer reviews that praise the quality of your research in your tenure dossier; and learn who's sharing your work so you can connect with them via social media.

But ultimately, it's up to you to decide what uses will be the best for you, depending upon your academic environment. Once you decide, <u>let us know!</u> We love to hear how scientists are using their Impactstory profiles.

Limitations

Many popular data providers including Google Scholar, Academia.edu, and ResearchGate won't share their data with us (or anyone else) via Open API. So, we unfortunately can't import metrics from those profiles to your Impactstory account.

It's also hard for us (and all other altmetrics aggregators) to track scholarly products by URL alone. There simply aren't great data sources for doing that ever since Apple bought out Topsy. We're continuing to look for ways to get you this data. But in the meantime, we encourage you to mint DOIs for your work, so we can better track it.

Homework

Now that you've got an Impactstory profile, make it awesome! Fill in the gaps in your publication history, add your most impactful work, connect your accounts, and so on. At the very least, information for all of your most important research products should be in your profile.

For your five most important products, add links to the Open Access versions of those works, if they're available and <u>you have the rights to post them</u>. (If you remember, publishers' restrictions might prohibit you from posting certain versions of your articles online.)

Once everything's imported, it's time to clean up your profile data. We import and clean up a lot of dirty and duplicate data for you, but some things might fall through the cracks. Here's what to look for:

- **Mislabeled products:** add missing descriptive information (journal names, authors, abstracts, and keywords that can help others find your work). It's as easy as clicking in the area that needs to be updated, adding the info, and then clicking the blue checkmark button to save it.
- **Duplicate products:** choose which version you'd like to delete, tick the box next to it, and click the trashcan icon at the top of your profile to get rid of it.
- **Miscategorized products:** sometimes, products will end up in the Webpages genre or in other inappropriate places on your profile, due to incomplete descriptive information. To move a product from one genre page to another, check the box next to the item(s) to be moved, then click the "Move" folder icon at the top of your profile, select the appropriate genre from the drop-down menu, and you're done!

Your final, enjoyable task is to now dig into the data that your Impactstory profile provides. Find unexpected mentions or reuse of your work online. Think about how you might use that data in a professional context. And give yourself a big pat on the back for completing the final Impact Challenge.

Epilogue

Congratulations! You've successfully made it through all 30 days of the Impact Challenge! We're proud of you!

You're now an Open, web-savvy scientist who's made valuable connections online and in real life. You're sharing more of your work than you were before, and have found many new ways to get your work to those who are interested. And you're able to track the success of your efforts, and the real-time impact of your scholarship.

We had a lot of fun writing these challenge and talking with everyone who's participated in the original 30-day challenge. Thanks for joining in! And feel free to <u>reach out</u> if you've got ideas for future Impact Challenges.

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