Social networking sites & article sharing

IAP  January 7, 2020

Courtney Crummett, Biosciences Librarian
Katharine Dunn, Scholarly Communications Librarian
Today’s session will cover:

- tools to share research articles: Twitter, LinkedIn, Facebook, ResearchGate, Academia.edu
- issues to consider when sharing articles: shareability, copyright, publishers’ rights
- sharing options at MIT and elsewhere
But first: Why do researchers use social media sites to share research articles?

- Networking
- Collaboration
- Getting feedback
- Getting recognition, promoting work, raising awareness
- Resume building and job searching
- Getting alternative statistics on impact

Do you use social media to share research?
Linking to research articles on Twitter (researchers)

https://twitter.com/iyadrahwan/status/1194332841594806272

Iyad Rahwan @iyadrahwan · Nov 12, 2019
Our new paper explores a question that evokes strong opinions: Should AI bots like Google Duplex be allowed to pose as humans?

Behavioural evidence for a transparency–efficiency tradeoff in human–machine cooperation | Nature Machine Intelligence

Iyad Rahwan @iyadrahwan · Nov 12, 2019
Thanks to the anonymous reviewers, who helped us improve the paper substantially.

Iyad Rahwan @iyadrahwan
And here's the paper: rahwan.me/s/2019_NMI_trans... and appendix: rahwan.me/s/2019_NMI_trans...
Linking to research articles on Twitter (publishers)

https://twitter.com/iyadrahwan/status/1194336799147122702
Linking to research articles on Facebook

Nature Research is a portfolio of high quality products and services across the life, physical, chemical sciences.

What we can learn from five naturalistic field experiments that failed to shift commuter behaviour.
Pareto-Optimal Data Compression for Binary Classification Tasks

Max Tegmark and Tailin Wu

Abstract: The goal of lossy data compression is to reduce the storage cost of a data set $X$ while retaining as much information as possible about something ($Y$) that you care about. For example, what aspects of an image $X$ contain the most information about whether it depicts a cat? Mathematically, this corresponds to finding a mapping $X \rightarrow Z \approx f(X)$ that maximizes the mutual information $I(Z, Y)$ while the entropy $I(Z)$ is kept below some fixed threshold. We present a new method for mapping out the Pareto frontier for classification tasks, reflecting the tradeoff between retained entropy and class information. We first show how a random variable $X$ (an image, say) drawn from a class $Y \in \{1, \ldots, n\}$ can be distilled into a vector $W = f(X) \in \mathbb{R}^{n-1}$ losslessly, so that $I(W, Y) = I(X, Y)$; for example, for a binary classification task of cats and dogs, each image $X$ is mapped into a single real number $W$ retaining all information that helps distinguish cats from dogs. For the $n = 2$ case of binary classification, we then show how $W$ can be further compressed into a discrete variable $Z = g_3(W) \in \{1, \ldots, m_3\}$ by binning $W$ into $m_3$ bins, in such a way that varying the parameter $\beta$ sweeps out the full Pareto frontier, solving a generalization of the discrete information bottleneck (DIB) problem. We argue that the most interesting points on this frontier are “corners” maximizing $I(Z, Y)$ for a fixed number of bins $m = 2, 3, \ldots$ which can conveniently be found without multiobjective optimization. We apply this method to the CIFAR-10, MNIST and Fashion-MNIST datasets, illustrating how it can be interpreted as an information-theoretically optimal image clustering algorithm. We find that these Pareto frontiers are not concave, and that recently reported DIB phase transitions correspond to transitions between these corners, changing the number of clusters.

Full Paper can be downloaded at: https://www.mdpi.com/1099-4300/22/1/7

This article belongs to the Special Issue Information-Theoretic Approaches to Computational Intelligence
Publisher perspective on linking to articles

Tips for Using Social Media to Promote Your Research

Social media can be a powerful tool for promoting your work and interacting with your research community.

- Twitter
- Google+
- LinkedIn
- Academia.edu
- ResearchGate
- Mendeley
- Facebook

When using social media for professional purposes, you should ask yourself:

Do you have the time?

It's an ongoing commitment. You can't build an effective following if you never post or Tweet, and an abandoned profile can reflect badly on the timeliness of your research.

Are you using the best channels?

Before you set up your profile, look around to see if colleagues in your research area are active in these communities, and if relevant university departments or organizations have profiles.

Are you willing to regularly write and curate content?

You will need to consistently engage people with your insight and expertise to build loyalty and trust within your audience. This includes writing new posts, and sharing or commenting on the posts of your peers and allied organizations. This brings valuable information to your followers, and shows you

https://www.nature.com/content/authortips/social.htm
Issues to consider when linking to papers

- Can the user get to the article?
  - Many people can’t access subscription content
  - Some publishers offer links for limited access

- Is it legal?
  - Does linking invoke copyright?
  - Do you have the rights to share the article?
Posting research articles

ResearchGate & Academia.edu: used by researchers to share papers, connect with peers, post comments, search for jobs.

Let’s take a look!
Are MIT researchers using these sites? Yes.

ResearchGate institution page for “MIT”

11,968 Members
223,530 “publications”
(also broken down into several departments)

Academia.edu

18,894 (shows up in the search box when you type MIT) affiliated with MIT
Institution page is split up by department: https://mit.academia.edu/
1114 departments listed
Issues to consider when posting papers on ResearchGate & Academia.edu

- **Who owns these sites?** They are private commercial entities, for profit, and run ads. They are not “open access repositories.”
- **Can others get the papers?** Sometimes.
- **Is posting legal?** It depends on the version shared. Rights often remain with publishers. Reuse is not necessarily permitted.
ResearchGate + publishers: Takedowns & lawsuits

ResearchGate continues to provide access to millions of copyrighted research articles in contravention of agreements between publishers and authors, taking no responsibility for this illicit activity.

Approximately 4 million copyright-infringing articles remain openly and publicly accessible worldwide for all publishers via ResearchGate’s site.

In total, almost 1 million copyright-infringing articles have been added to ResearchGate’s site since the formation of the CIRS, for all publishers.

On average, approximately 58,000 copyright-infringing articles are added to ResearchGate’s site each month, for all publishers.

Up to the end of May 2019, CIRS members have sent more than 400,000 takedown notices for content uploaded to ResearchGate’s site both before and after the formation of the CIRS.
As part of a collaboration with ResearchGate, Springer Nature has made select articles from this journal available to read. ResearchGate and Springer Nature are partnering to pioneer innovative access models for scientific content. Recent articles from this journal have been selected for a trial that makes select articles available on ResearchGate.

Nature Chemical Biology
Publisher: Nature Publishing Group

RG Journal Impact: 9.39 *
*This value is calculated using ResearchGate data and is based on average citation counts from work published in this journal. The data used in the calculation may not be exhaustive.

RG Journal impact history

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Can I share it? (and how? and where?)

http://www.sherpa.ac.uk/romeo/search.php

https://www.howcanishareit.com/
We can help you legally share articles

- Deposit your work in DSpace@MIT: share a legal version that anyone can access.
- Publish in open access journals: link and post anywhere.
- Use preprint repositories: link and post anywhere.
Thank you!

Questions?

Contact: scholarlypub@mit.edu