

Seven Tips for Enhancing Your Research Visibility and Impact

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It is important to note that there is no substitute for quality work. Please do carry out path-breaking research and produce outstanding results by demonstrating their usefulness both theoretically and experimentally. It is equally important to enhance its impact by making the outcomes of your research work easily accessible to your peers and the larger community. Your efforts and willingness to genuinely share research outcomes with the community will lead to better citations to your work. This in turn leads to other outcomes and recognitions such as increased chances of (a) receiving invitations to present seminars and possibly keynote talks at conferences; (b) getting surprise emails from prospective employers; (c) obtaining industrial consulting opportunities; (d) gaining media attention; (e) winning grants, (f) attracting brilliant students, (g) receiving promotions, and so on and so forth. If all goes well, you might one day become a celebrity intellectual!

Here are some avenues for making your research work easily accessible to fellow researchers and for sharing its outcomes with broader community. These have worked for me.

1. Publish Early Technical Reports

In computer science (CS), the time required for formal publication of a paper (from submission, review, selection to formal printing) will be in most cases close to one year for a conference publication and longer (over two years) for a journal publication. Therefore, as soon as the first version of paper is written, you should consider publishing it as a Technical Report. There are many ways to achieve this.

1.1 Publish as your Group, Department or and University Tech report:

For example, I always publish most of my articles as GRIDS Lab reports the day they are written. Check out: http://gridbus.csse.unimelb.edu.au/tech_reports.html.

You can also post at: <http://eprints.unimelb.edu.au/> if you are working for the University of Melbourne.

Benefits: Your work is time-stamped – no others can claim ownership of your idea after the technical report is out— and is also ready for sharing with others. Your peers can look it up and probably, cite in their work. They could carry out follow-up work and cite your report even before you have formally published. This has happened to me before. There are some researchers who are quick – they read the “Future work” section of my paper, solved limitations or new issues that I identified, written a paper on their solution, and then published it as a conference paper earlier than the publication of my own work only because my paper based on technical report is being reviewed for or waiting for publication in a journal. It can be argued that I have lost an opportunity to write a paper on my proposed future work. However, I hold the view that this presents a better motivation for myself –or my team- to advance the work quickly. Thinking positively, it does not matter whether you did additional research and published earlier than others OR someone else did and published earlier than you. Either way, your technical work has enabled for the field to advance and this should be a sufficient for happiness.

1.2 Post your reports to Global Archive / e-Print:

<http://arxiv.org/>

Benefits: In addition to all those mentioned above, Arxiv provides enhanced accessibility and ease of download as it has replica sites all over the world. It has been also sometimes read by the general technical media who may notice potential of a certain pre-published work and write an article on it. One of my articles received attention in a similar fashion from the American Technology Review News Magazine who carried out detailed analysis, interviewed experts around the world and published their opinions/comments on the potential of my work. Please check out:

http://www.trnmag.com/Stories/2001/091201/Tools_automate_computer_sharing_091201.html

Such review articles on our work were able to appear in the MIT Technology Review magazine.

2. Seek comments of colleagues before you formally publish

If you are writing a paper introducing your new project or a comprehensive article on the state of the field for publication in a journal, it could be useful to seek comments from some colleagues working in the field before submission. Their comments/suggestions can enhance your article and may lead to a shorter review process.

You need to seek comments from international colleagues especially when you are writing Taxonomy of a field or on an emerging topic. It is important to get global agreement or support from some influential people in your area. However, please make sure that you map their work to your taxonomy.

Benefits: The most obvious benefit is that it enhances likelihood of getting your paper accepted as you have been able to address many of its weaknesses in advance based on expert comments.

3. Post your published papers on your website

While most researchers list their publications, many do not provide the papers as they are concerned about violation of publishers' copyright? In my experience, most publishers don't mind publishing copy of the camera ready paper on your personal website. Some publishers prefer you do that after a year or two from the date of publication (so that they could recoup the cost of publication by that time and hopefully, make some profit). If you are concerned, you may want to provide a link to your article published online by the publisher.

This is especially important if you generally don't publish Technical Reports due concern that others might copy your work or do some better work and reduce your chances of publishing.

4. Post Slides of your Talks Online

If you have given a seminar or conference talk, consider posting slides of your talk on your website. Especially if you present a keynote talk, many would like to have a copy of your slides. Please share without reservation – don't worry excessively about others copying your slides. The more people copy your work, the better it is! Most researchers in your field would know who the real creator is.

5. Maintain a Group/Project Website and Share Results (e.g., software)

It is very common in academia to setup a project/group website and update it regularly. You can share project objectives, status, publications, details on team members, software you have developed, etc. by publishing them on your project website.

The most prominent way of making an impact in computer science is to develop high quality software systems and make them available for world-wide use. Whenever you produce software that demonstrates your work, please share it with the world including any datasets you may have used in your experiments. I agree that this will increase your workload, but this is one of the best ways of transferring knowledge. Write a short release statement and post it to mailing lists or discussion forums related to your project area. You could expect some queries from prospective (or regular) users. It is important to support them and they may even become your collaborators in future activities. For example, I have been instrumental in co-developing Grid computing software technologies that are widely used in many organisations around the world. A number of IT consulting

companies and researchers from academia are building solutions based on our Grid technologies. This has helped our team in establishing links with international researchers from academia and industries. Some of them have extended our software technologies and added new features, which we were later able to include in our original distribution (e.g., network QoS extensions to GridSim contributed by the National University of Singapore are now part of GridSim distribution). Such works also lead to co-authoring research papers and book chapters.

Benefits: Enhances awareness about your research work nationally and internationally and increases chances of others utilizing or building on your work. If the project becomes popular, you will receive invitations to write articles, book chapters, or general magazine articles.

6. Share Success Story with Wider Public

If your work has made important discovery, consider writing a short article for sharing with general public. You can publish that in Magazines or Community newsletters.

Also, talk to the media office in your Organisation/University and share the excitement of your work. If they are impressed and feel that the general community would be interested in hearing about it, they will assist in writing an article or they might write one for you by interviewing you. For example, researchers in the University of Melbourne could contact "Media and Communication Office" and explore opportunities for sharing your story through internal publication "*The University of Melbourne Voice*".

7. Maintain an Online Research Directory

In your chosen field of research, you will be aware of various related projects around the world. You might have bookmarked them as well. Why not share that with others? You could enhance your bookmarks further by categorizing them into:

- Based on their focus (e.g., system, theory, discovery, security, tools, applications, .com companies etc.).
- Links to some useful Tutorials
- Links to Related Conferences
- Links to University Courses teaching in that area.
- and so on...

You could publish the list online as part of your website or create a separate website for that purpose.

You could also maintain a mailing list of people who are interested in hearing periodically about some updates in your area. You could write a short newsletter/message highlighting some key/new developments or new projects you come across and post that to mailing list once in a month or so. You can also share pointers to innovative work you have done with members.

If you need an example or inspiration, you may want to take a look at some research directories that I maintain:

(a) Grid Computing Information Centre: <http://www.gridcomputing.com>

This site continues to be #1 in Google search for keyword "grid computing" since 1999. It is ahead of **45,400,000** pages as reported by Google on Nov 3, 2006! The mailing list has 2048 members who are interested in hearing updates on Grid computing from me!

(b) Cluster Computing Information Centre: <http://www.gridbus.org/~raj/cluster/>

Benefits: This is one of the best community services you are able to offer as it helps young or new researchers in navigating through an emerging area. As an added benefit, you can easily plug-in your work in newsletters that you post to information centre mailing list.

I hope you will find the above tips helpful for enhancing visibility and impact of your research work. If you have suggestions or thoughts on further improving these tips, please let me know. I would love to update this document with your input. Thank you!