Open interview

Librarians should not fall into the trap of just wanting to look innovative to keep up with the Joneses: Aaron Tay

Aaron Tay is Library Analytics Manager and Research Librarian at Singapore Management University. He has keen interest and curiosity in many areas of academic librarianship. His thoughts on librarianship are constantly evolving and shared on his award winning blog -Musings about Librarianship.

He has a deep knowledge of library systems coupled with understanding of user needs from a decade of experience as a research librarian. As library analytics manager, he leverages his diverse experience in various areas of academic librarianship to provide a holistic view of library strategy and operations in newly emerging areas like analytics, discovery of research data and more. His areas of specialties are analytics, discovery systems, academic research and social media.



Open Interview brings Tay's exclusive interview with **Chinmayee Bhange** with the aim to introduce how a library analytics manager and research librarian uses technology and professional knowledge and keeps himself updated to provide the better information services to his users. His thoughts and experiences shared in this interview encourage us to use technology more creatively and in a balanced way with the ultimate aim to help users.

• You are one of the successful bloggers from library science field. Your blog, *Musings about Librarianship's* completes ten years- which is a testimony to your work. Open Interview congratulates you.

Thank you.

• How did you start focusing on technology and take interest in blogging? So how did the journey begin?

I began blogging approximately one and half years after starting off as an academic librarian. At the time in 2008, I was pondering why so many users were having problems accessing databases

via EZproxy which led me to experiment with various Library 2.0 tools such as library widgets and toolbars that could help make access to electronic resources easier. Part of Library 2.0 was use of social media and blogging so this led me to try blogging what I found.

• You have written 250+ blog posts on various technological areas concerned with the libraries. Especially, your write-ups on discovery tools, open access, information literacy are worth reading. How do you research and keep tab on updating your tech-knowledge of the recent times?

Like many, I use Twitter a lot to keep up. I generally read Twitter on my commute to and from work and at least once a day on weekends. The trick to Twitter though is to know who to follow. While some librarians with a lot of followers (say 10,000+) are great to follow, not all of the most insightful people on Twitter have huge followings. Sometimes I would read an interesting article or even book on a topic I am learning about and I would check to see if the authors are on Twitter and follow them. Or I would find interesting tweets retweeted by others that led me to follow these people as well.

I have a fairly curated list of who I consider thought leaders in areas I'm interested in on Twitter (see my Twitter list). Over the years, as my interests expanded, I've found it helpful to not just follow librarians but also publishers, researchers, experts in machine learning, etc.

I don't have any magic secret for keeping up except I believe in the value of constant professional learning and devote a large proportion of my time on learning. When a topic sparks my interest, I try to learn as much as possible by reading about it, watching webinars and videos, joining mailing groups on the topic and discussing with other librarians who are well versed in it and most importantly reflecting on what I have been thinking and doing. In fact, this is a big reason why I blog.

I keep track of interesting articles to read later using Microsoft Onenote . When I'm struck with an interesting idea or concept for a blog post (which I get all the time), I quickly make a note in my Google Keep. This trick helps ensure I rarely get writer's blog for a blog post. Fundamentally, though you have to be curious and inquisitive and care about improving yourself and services for your users.

• What is that common feedback you always get from your blog readers?

A lot of them thank me for writing blog posts that have information that make them "look smart" to their bosses. A few have even said that they learnt as much from my blog posts as from their library/MLISc courses. I'm gratified that my posts have impacted them the way they have.

• As a tech-savvy librarian and blogger (on library technology), what technological changes and developments do you observe in the library arena in that last one decade of your blogging?

Even when I was a new librarian, Google was already a dominant force. Google Scholar was coming into its own and today searching full-text across the majority of journal articles available in the world is now considered the norm and this has led to the erosion of the importance of searching using complicated Boolean search (except in specific domains like Medicine and Law). Even more fascinating has been the slow rise in the amount of academic content made available in open access mode or at least free to read from Gold Journals as well as copies from selfarchiving in repositories, pre-print servers and Scholarly Collaboration Networks such as ResearchGate. This has shifted the behavior of our users and how roles has the purchaser and gatekeeper of scholarly content is eroding.

Both trends had led to a reduction in the number of questions I see at the desk. For instance, when I first started as a librarian, I still received "what journal database should I use to get three articles I need" type questions. Today, these questions have almost vanished.

As I write this in 2019, one trend I'm starting to see is how the availability of open content be it via open access, open citations, open educational resources and more has increasingly been leveraged by companies to apply machine learning techniques for new applications.

Interesting applications and companies such as Scite (semantic analysis of references), Scholarly/Paper Digest (auto-summaries of content and extraction of references), Unsilo (application for ML for publishing) are just examples of what I expect to become the first wave of machine learning applications in our industry that will take advantage of the availability of open content. As stated eloquently by the ImpactStory, in the decade to come we will "finally cash the cheques written by the open access movement."

• Which library technology, according to you, is nearing obsolescence and which is on the flipside?

Tough one. I currently think linked data or someway of querying structured linked graph data might have chance of making a breakthrough. Of course, the idea of semantic web/linked data has been around for a while (and is currently somewhat in vogue in the form of Knowledge Graphs), so who knows if it will go anywhere but currently I am somewhat bullish on Wikidata but the idea of querying PID graphs (promoted by DataCite). It won't completely replace keyword search but perhaps in a decade from now it might be a fairly common technique in our search tool kit.

• Virtual reality, machine learning, artificial intelligence (AI), cloud computing are finding space in the success story of libraries. Are we heading toward a safer and resourceful future?

I don't have a good read on virtual, augmented or mixed reality but my feeling is currently it's still something the industry outside of libraries has not figured out compelling use cases, so I'm unsure how it will pan out for libraries.

Al or rather machine learning as I said before is an area that i think synergises very nicely with the trend towards open we are seeing in the academic world. That said it might be possible that big players such as traditional publishers who own much of the content might be able to benefit from this trend while themselves not releasing their own content allowing them to reap the benefits in an unfair fashion.

For instance, while there has been a trend towards publishers opening up references in their journals via Crossref thanks to the efforts of I4OC (initiative for open citations), there are some holdouts such as Elsevier, ACS, and IEEE. These organizations could possibly benefit from the openness of other publishers while denying others the same access to references from their journals.

Like any profession, we should worry about how much Machine learning will impact our jobs of course. New roles will definitely exist. For example- we know the accuracy and biasness of machine learning techniques are sensitive to the datasets they are trained on and librarians could play a role here in curating datasets and education of users. But this would require quite a radical change in our skillsets.

• 'Library analytics' is your strength. How far it has shown its might? Is it in line with the way you channelized it?

Library analytics is not a new thing by any means in the sense that the library profession has been recording and studying statistics for decades, though I suspect much of it is done on a library department level (e.g. circulation, electronic resources) and rarely done holistically to see the whole picture across the library much less within the campus.

In U.S.A., U.K., Australia library analytics has also supported the push towards measuring the valuation of the library with ROI (return on investment) studies and correlation studies but these can be controversial due to the conflict with the desire of protecting user privacy.

Though analytics can be applied on use cases without infringing on user privacy, I think there is a battle going on right now in our profession on the tensions between being helpful to our users and respecting their privacy.

• Most of the academic libraries feel the pinch (of budget) when it boils down to acquiring new technologies for libraries. What is your take on it?

Those I experiment a lot with free tools. I'm somewhat conservative when it comes to committing large sums of money on cutting edge technologies that are not proven. We need to be careful to not fall into the trap of wanting to look innovative or doing things just to keep up with the Joneses.

• Librarians today are a part of the research work flow process. What research tools/platforms do you often use in your library while serving your research community? Any tools that you suggest for the naïve researchers?

It's hard to recommend tools without much context. So for example-I recently ran into Mathpix a lot tool that takes a snapshot of Math equations and converts it to LaTex, I happen to know a Ph.D. student that does LaTex and shared it with him and he found it really useful. But most users would not see a use for this.

Other than that, there are many tried and tested ones like Zotero, Unpaywall, Open Access Button, Google Scholar that almost everyone can use.

I am always trying out more cutting edge tools but I tend to be careful about sharing them with users because some of the tools are unstable and without much of a track record and may not be appropriate to recommend to users who expect to use the tool for a long time. (Still I blogged a post here with tools that might be worth looking at and here's one on tools that use machine learning).

• You have been an ardent advocate of open access. What are your thoughts on the transition of roles as a 'data librarian' to 'embedded librarian?

I wouldn't consider myself a "ardent advocate", though over time my views on open access has changed. My view is- as open access take holds and erodes traditional roles as purchaser, our roles will change towards more expertise based roles and yes data librarian would be one of them. Embedded librarianship is an interesting trend but I would argue without the required expertise to be helpful this trend alone would be hollow.

There seems to be at least two types of data librarians working in academic libraries now. There are those working as research data librarians (or even the more specialised reproducibility librarians) and the digital scholarship librarians.

The skillsets for both roles in my opinion are not easily acquired (perhaps RDM might be easier) for many existing librarians and so it will be an uphill battle for them to upgrade skills in this area. It's heartening- there are movements like Library Carpentry that promote data skills useful for

librarians themselves in their day to day work as well as enable a data oriented mindset that coincidentally make it easier to transition to data librarian roles as well.

• Tell us about the technological trends of/in the Singaporean libraries, especially academic and research libraries.

Singapore academic libraries are pretty much similar to ones you can find in US, UK, Australia. There are a couple of quirks due to the relatively smaller size of the country but otherwise like most academic libraries in developed countries we are grappling with the challenges of setting up data repositories, helping with research workflow management issues like ORCID, RIMS, etc.

• Not all the library schools can produce technologically well literate and trained library and information science (LIS) professionals may be due to lack of resources or exposure to technological environment. What is your take on this?

I don't think it is realistic to expect library schools to cover everything a professional will need to know. With a Wi-Fi connection there are resources that can teach you whatever you want to learn.

• According to you, what technological skills are necessary for the one who enters into LIS profession and for the one who is a mid-career librarian?

I would say learn at least the basics of coding (Python, R, etc), versioning (Git), etc. You may not code most of the time, but having a passing familiarity with programming concepts will better equip you to have a deeper understanding of practices like Open Science, reproducible research, etc. or to talk to researchers and tech vendors. Beyond that, as cliched as it sounds, attitude is important. Always be ready to explore new things if you have the time, even if it seems at the time something isn't directly relevant to you. Learning more is rarely harmful.

• Technology is ever-changing. What are the important steps in exploring the suitability of any technology geared for libraries?

Again, I don't have any magical advice here beyond the use, do small pilot studies first, etc. Ultimately, it is important to keep in mind that whatever you do must be designed to have value to the users you are serving. It must be for them. I have been on quite a few technology implementation projects and I've seen all too often many librarians lose sight of that and focus on just the technology, on checking off points on some procurement checklist or on just being able to launch the project on time. That is a recipe for failure.

Our roles as librarians is to champion and advocate for our users, if we do not do that what's the point of us being on the IT project team?

• Any blogger-librarians whom you follow regularly? Also share with us your favorite blogs that you love reading always.

I read relatively a few blogs by individual bloggers actually. I tend to rely more on Twitter to surface interesting posts. Typically, the ones I click on are by Scholarly Kitchen (though the quality and in my opinion biases of posts varies depending which of the "Chefs" are posting), posts by organizations such as DataCite, Crossref, Google, etc.

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Note • All the answers/ opinions expressed in this interview/document are of the interviewee.



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Credits • Aaron Tay's image- http://researchguides.smu.edu.sg/ • Assistance for framing questions and designing interview document- Santosh C Hulagabali, PhD • Technical assistance- Chintan Makwana

Interviewee • To know more about Aaron Tay, http://researchguides.smu.edu.sg/prf.php?account id=75795



Chinmayee Bhange heads the library of St. Francis Institute of Technology, Mumbai. She has a decade long experience working in an academic library. At her institute, she has taken many innovative initiatives to promote reading habit among the students and academicians. She writes regularly on such activities on her blog: http://sfitlibrary.blogspot.com/. Email: chinmayeebhange@gmail.com



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