## The scholarly commons must be developed on public standards



Access to scholarship is becoming ever more dependent on one's (or one's institution's) financial means. **Björn Brembs** and **Guy Geltner** argue that one solution to these growing problems is for scholarship to have open, public standards; both for its Web 1.0 tasks, like reading, writing, and citing, but also, crucially, for its Web 2.0 functionalities too. Scholarship is a social endeavour and open, public standards would allow scholars to share, discuss, and reuse knowledge efficiently without being beholden to the whims of the tycoons or startups currently running the most prominent

social media platforms. ScholarlyHub aims to make this vision a reality.

It's not every day that a neurogeneticist and a medieval historian write a post together, let alone for the LSE Impact Blog. But the overall urgency to provide scholarship with a Web 2.0 infrastructure clearly straddles all fields. As highlighted by recent debates about net neutrality, access to information on the web constantly faces the threat of being increasingly defined by narrow financial interests. It's the same with access to scholarship, which is becoming the privilege of the few; that is, those who can pay handsomely for it. Perhaps the first to be impacted are professional academics who cannot afford to publish in or subscribe to "prestigious" journals that charge high fees, or access books and databases behind expensive paywalls. But the ripple effects for society at large will arrive quickly and be devastating. Journalists, medical and legal clinics, think tanks, local government agencies, students and teachers, families and local businesses; all rely on critical scholarship to plan and make important decisions on a daily basis.

Without a concerted effort *now*, we are paving the way for a world in which access to these insights, often funded by taxes and foundation grants, will become ever more dependent on one's (or one's institution's) financial means. And given that the latter tends to be shaped by race, class, and gender inequalities, our continued apathy will perpetuate – indeed, exacerbate – gross social injustice around the world. The embargoing of scholarship behind paywalls, alongside extortionate publication and open access fees are the academic world's micro to the undoing of net neutrality's macro. In that sense, academia is already staring down the barrel of Net Inequality, and the view isn't pretty.

One solution to these growing problems is to have open, public standards. As much as Web 1.0 took off because TCP/IP, http, HTML, etc. were non-monetisable, many of our current political, social, privacy, and conflict-of-interest issues stem largely from Web 2.0 being predominantly private. Facebook, Google, Amazon, Twitter, Slack, WhatsApp, GitHub, ResearchGate, DropBox: at least some of these services are used by most scholars, but none provides the sustainable, open, and public support we've come to expect from our institutions over the last centuries, and what the internet was designed to deliver.

Scholarship already has access to plenty of functionalities it could leverage for its Web 1.0 tasks, like reading, writing, and citing. We can read with our browsers or specialised software as long as our publications follow common formats. We can write, even collaboratively, within our browsers and publish from there with a single click, as long as we agree on a standard set of protocols and procedures. We have a citation ontology CiTO which we only need to implement to allow us to link together text, data, and code in a modern knowledge commons. However, for a true scholarly commons, Web 2.0 functionalities are required. Scholarship is discourse. Scholarship is critique. Scholarship is interaction. Scholarship is sharing and reusing. In short, scholarship is a social endeavour.

Today, it is possible to develop analogous standards to the early protocols in order to establish a scholarly commons. On the Web 1.0 side, these standards would allow us to build a knowledge web out of our narratives, data, and code, where service providers would compete to service us, rather than scholars competing for the artificially scarce slots in arcane journals. On the Web 2.0 side, these standards would allow us to share, discuss, and reuse knowledge efficiently, without subjecting our scholarship to the whims of tycoons or startups currently running the most prominent social media platforms. And it is here that ScholarlyHub comes in.



ScholarlyHub plans to provide scholars with the social media and other capabilities they urgently need to realise the potential of the internet to democratise knowledge and thus serve the core purpose of science. These capabilities will be developed on top of open standards that allow for a thriving plurality of server and client-side solutions to meet all scholars' needs. As a platform it will enable, rather than direct, such interactions, by creating a meeting place for scholars of different stripes and allow them to define quality in their fields, as is their wont. Only, in contrast to existing commercial services, it won't allow that type of mentorship, critical engagement, and creativity to be leveraged as "traffic" for private gain that – as we increasingly realise – is undermining the viability of scholarship and of the free and open exchange of ideas. As such, ScholarlyHub is designed as the anti-version of the many "Facebooks for scientists" to have been created and failed over the last decade.

What ScholarlyHub proposes is to invigorate existing services and create synergies between them by providing a front-end, cross-disciplinary scholarly commons designed and run for and by scholars. Based on modest (individual and organisational) member fees, it will become a space beholden to no interest other than our collective desire to remain autonomous and inclusive, and remove as many barriers as possible between scholars and between science and society. As we have learned from Web 1.0, autonomy and inclusivity can only be guaranteed by open standards. And even then we always need to be vigilant. For the scholarly commons, open standards are the solution to ensure a level playing field; they ensure that any service provider, for whatever reason, can be replaced without disruption of service.

As <u>ScholarlyHub</u> will operate completely in the open, anybody can fork the technology to improve it. The resulting pluralism prevents market domination and hostile takeovers or buy-outs. So in a positive sense, the future for <u>ScholarlyHub</u> is entirely open. Once a substantial membership proves the viability of creating new standards and keeping them in place, and a thriving market of service providers is established, its operations may become limited to the front-end social network with which it (strategically) began. On the other hand, it may continue to exist as a governing body for the continuing development of scholarly standards, much like the <u>W3C</u> for the broader internet.

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