Digital / Open / Social Scholarship

Definitions & Frameworks

Assumptions & Challenges

Tools & Illustrations

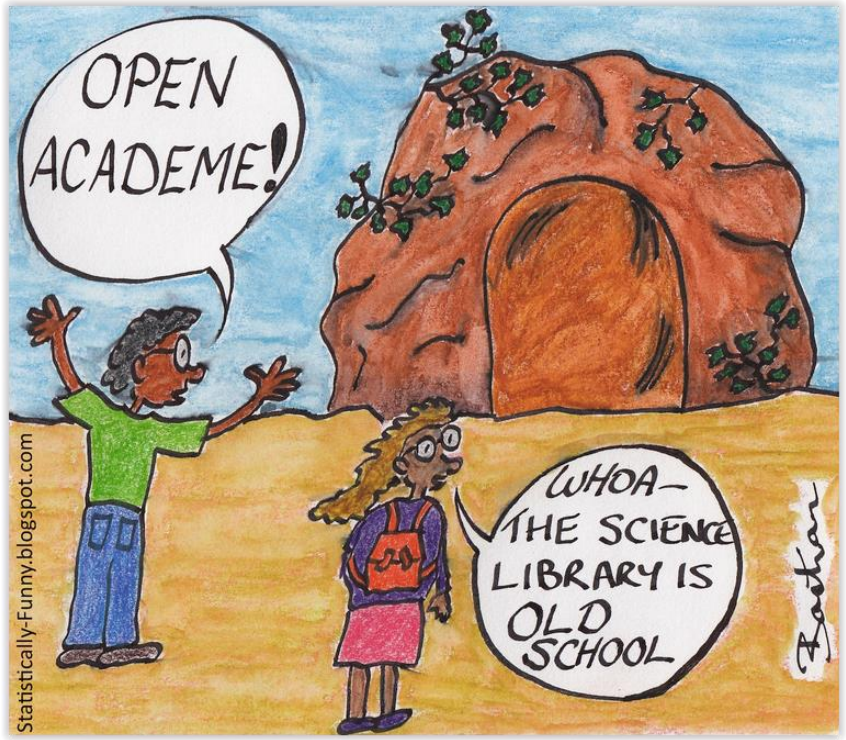
F. Jérôme – IFRES (ULiège) – 15th March 2018

Plan of the presentation

- A few ‘catchy’ statements about the emergent phenomenon ‘Open Scholarship’
- Terminology related to OS
- 2 frameworks in order to better grasp what OS is about
- Web 2.0. tools associated with OS + illustrations of OS practices
- A few assumptions & challenges related to OS
- References and reading tips

A few ‘catchy’ statements about OS

- “Many scholars hope and anticipate that open practices will broaden access to education and knowledge, reduce costs, enhance the impact and reach of scholarship and education, and foster the development of more ***equitable, effective, efficient, and transparent*** scholarly and educational processes.” (Veletsianos & Kimmons, 2012)
- “. . . a scientific paper of the future will be ***a work in progress***—with different people with different skills and talents contributing to a body of work sequentially: one has the idea, another turns it into a hypothesis, another designs the experiments, another runs them, another analyzes the data, another visualizes them, another interprets them, another places several such pieces of work together into a historical and philosophical context and finishes writing the “paper.” . . . The readers of the paper then keep adding their commentary, links to subsequent “papers,” blog posts, media articles, etc. (Zvikovic, 2008)” (Scanlon, 2014)
- “Without departmental and institutional policies for promotion and tenure that recognize, support and reward social scholarship practices, ***they are unlikely to become widespread in academia***, and even with support, some fields may be more likely to integrate them than others.” (Greenhow & Gleason, 2014)



Terminology: Digital / Open / Social Scholarship and Web 2.0

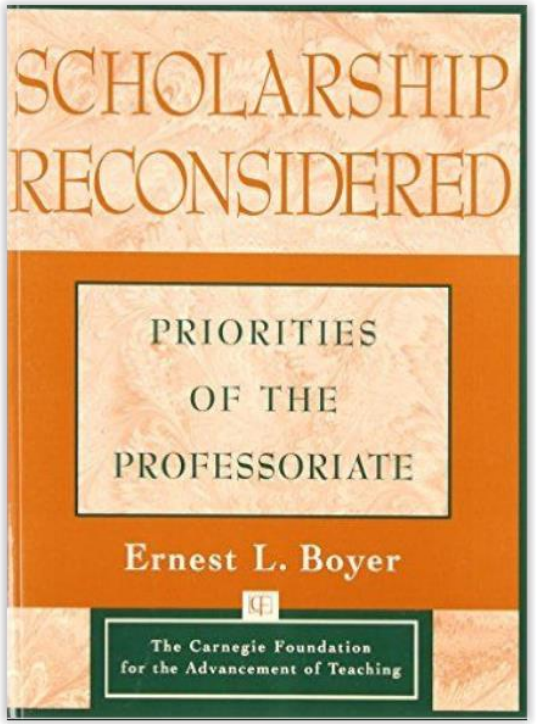
- "Open scholarship is a set of phenomena and practices surrounding scholars' uses of digital and networked technologies underpinned by certain grounding assumptions regarding openness and democratization of knowledge creation and dissemination." (Veletsianos & Kimmons, 2012)
- "Cohen (2007) defines social scholarship as "the practice [. . .] in which the use of social tools is an integral part of the research and publishing process . . . [and is characterized by] openness, conversation, collaboration, access, sharing and transparent revision."" (Greenhow & Gleason, 2014)
- "Social media [is] a term often used interchangeably with Web 2.0, to indicate online applications that promote users, their interconnections and user-generated content (Cormode & Krishnamurthy, 2008)" (Greenhow & Gleason, 2014)
- "Weller (2011) resists a simple definition of digital scholarship but identifies a digital scholar as "someone who employs digital, networked and open approaches to demonstrate specialism in a field" (p. 4)." (Scanlon, 2014)

Framework 1: *Scholarship reconsidered* in the age of Web 2.0

"In 1990, Ernest Boyer's ground-breaking essay, ***Scholarship Reconsidered*** (Boyer, 1990), sought to legitimize the range of academic work being produced. He proposed that scholars work in four interrelated areas, developing knowledge that addresses societal needs:

1) *SOD: scholarship of discovery (i.e. basic research)*
2) *SOI: scholarship of integration (i.e. interdisciplinary work)*
3) *SOTL: scholarship of teaching and learning (i.e. informed and studied teaching practices)*
4) *SOA: scholarship of application (i.e. applied research).*

Pearce et al (2010) and Weller (2011) suggest a conception of ***digital scholarship*** that values openness, or open access, within the four dimensions: open data, open publishing, open education and open boundaries." (Greenhow & Gleason, 2014)



Framework 1: Open SOD

"The first dimension of Boyer's (1990) framework, SOD, is defined as ***original research*** that expands or challenges current knowledge in a discipline. SOD may consist of rigorously controlled experimentation, systematic qualitative inquiry, statistical analysis or theoretical speculation.

=> Reconsidering SOD through the lens of ***open scholarship*** values and social media affordances suggests some powerful shifts…" (Greenhow & Gleason, 2014)

… Such as:

1) **Open access and open publishing**:
   Publishing in open access journals and submitting publications and data to institutional or national repositories.
2) **Networked participation**:
   Maintaining digital presence via blogs, microblogs, personal websites and social networking sites.

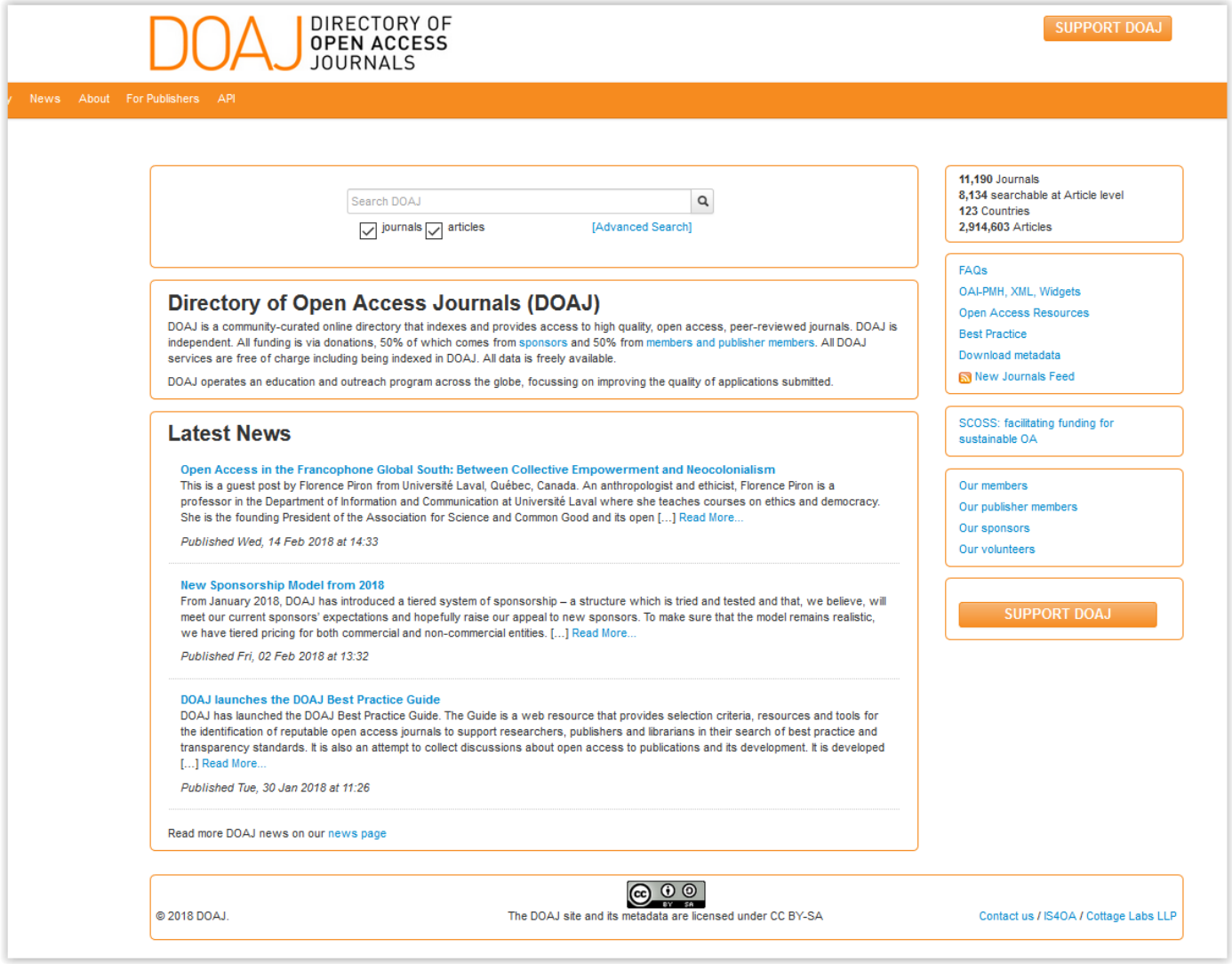
Aspects of open SOD, open access and open publishing

"The role of computing and the ability to both generate and analyse unprecedented amounts of data has significantly re-moulded many arenas of scientific research. The development and adoption of digital data has led to the ***establishment of new (sub)fields*** so that "[a] growing number of sciences, from atmospheric modelling to genomics, would not exist in their current form if it were not for computers" (Foster, 2006)." (Pearce et al., 2010)

"Many scholars have found benefit in ***sharing their data and manuscripts via institutional or national repositories*** in hopes of improving research and development (Houghton et al., 2009; Lynch, 2003) and making tax-funded research (often conducted by public universities) available to the public (Kuchma, 2008)." (Veletsianos & Kimmons, 2012)

"Open access publishing has grown rapidly over the last fifteen years (Laakso et al., 2011), and ***OA journals*** have quickly arisen as 1) an option for scholars to publish their work so that anyone with an Internet connection can access scholarly work without facing traditional financial, legal, or technical barriers; 2) a means for limiting potentially abusive publisher behaviors; and 3) a way of returning control of scholarly work to the authors (c.f. Furlough, 2010; Wiley & Green, 2012)." (Veletsianos & Kimmons, 2012)

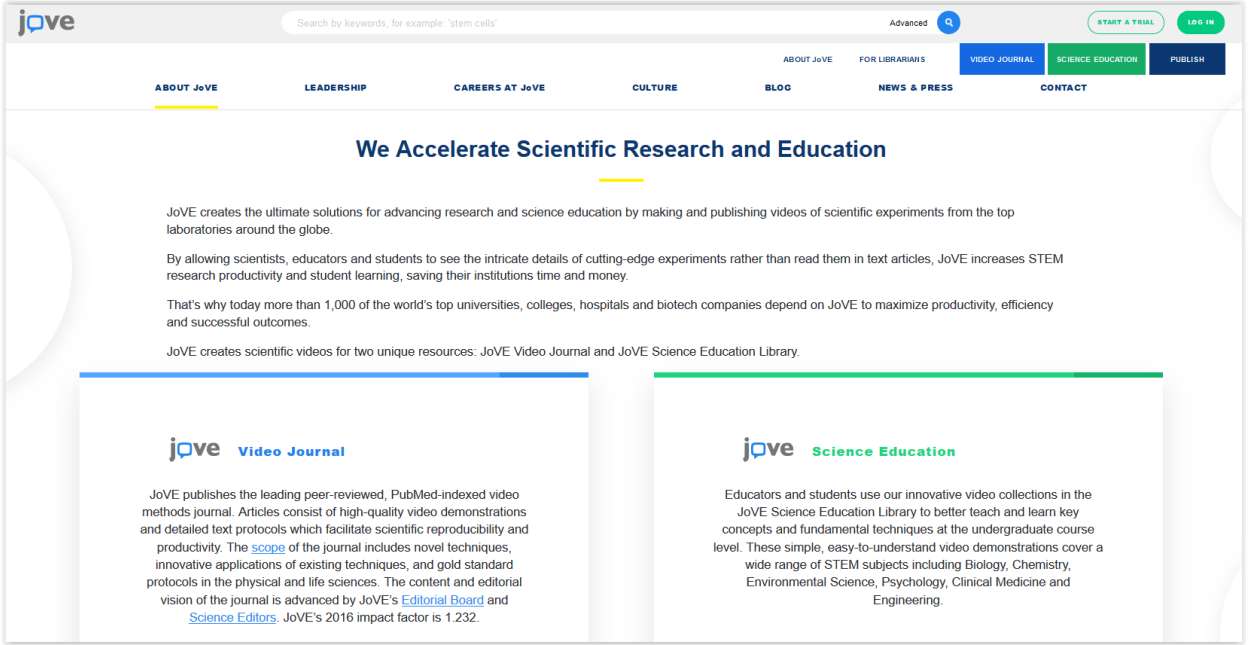
Open Access Journals
https://doaj.org/



New formats of publication

https://www.jove.com

"Experiments in the possibilities of the digital format are taking place, such as the ***Journal of Visualized Experiments (JOVE)*** in biology, which is a peer-reviewed, PubMed-indexed journal, consisting of videoed contributions. The idea behind JOVE is that video is a more appropriate medium with which to communicate complex experimental techniques and that it reduces the time taken to learn and adopt new ideas. JOVE is an example of the new formats made possible through the adoption of new technologies." (Pearce et al., 2010)



Aspects of open SOD: peer review

"There are a number of ***modifications to peer review***, such as open peer review and publishing or acknowledging the contributions of reviewers to the final text (Cope & Kalantzis, 2009; Harley et al., 2010)." (Pearce et al., 2010)

> In 2006, the journal Nature ran a debate and experiment with open peer review, which involved making articles that were undergoing the traditional process of peer review available on a publicly accessible server for wider comment, with the reviewers and public comments taken into consideration when deciding on publication. This trial was not particularly successful, with a low take up by authors and a lack of high quality comments and Nature subsequently reverted to the former model.

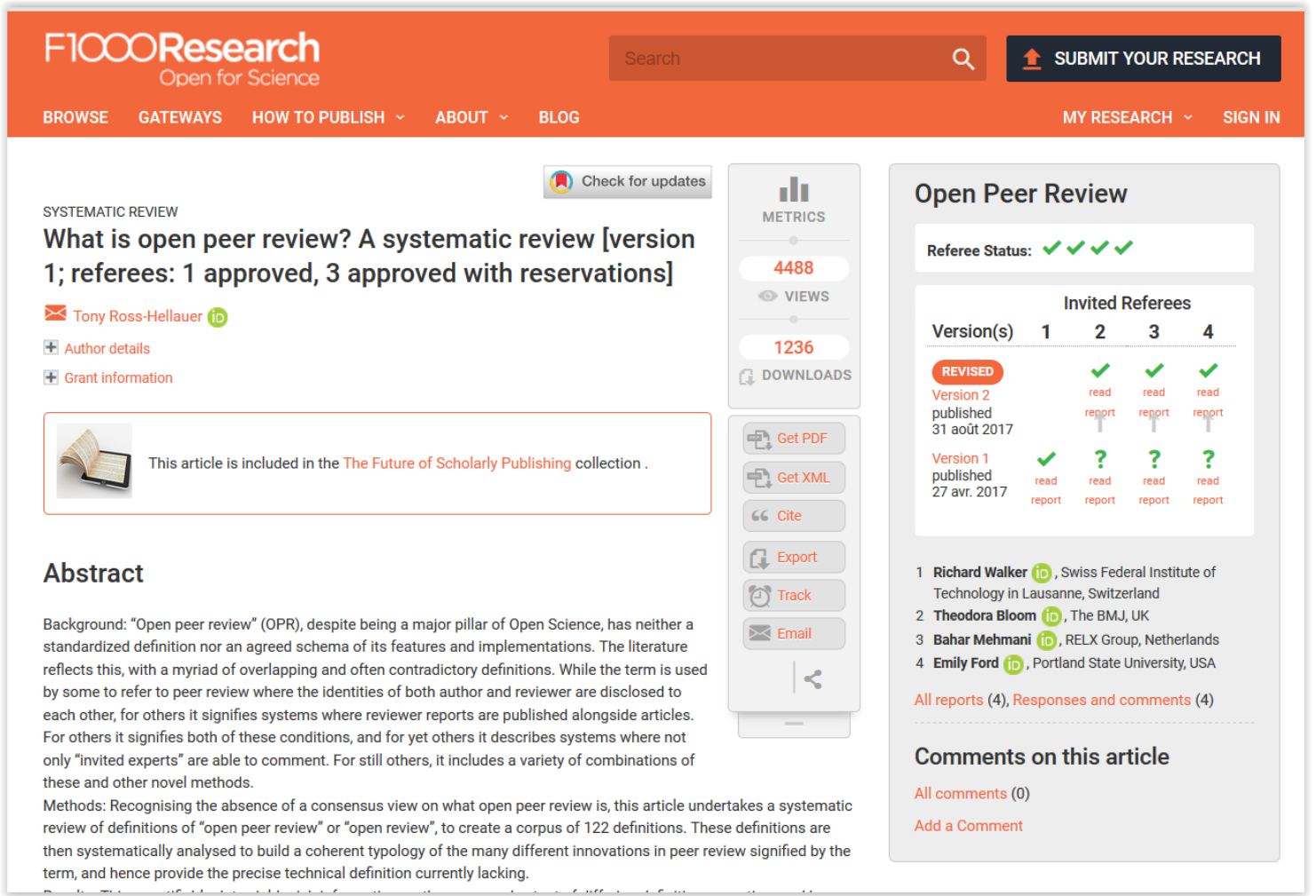
"Review using social media tools can take two forms: ***explicit review and implicit review*** (Cohen, 2007)

In explicit review, the scholarly work is made openly accessible, and the audience is invited to scrutinize, comment on or rate it.

> For instance, life science researchers recently used Twitter to criticize an article in the journal, Science, that claimed to have discovered a gene that predicted the human lifespan (Mandavilli, 2011). Through this explicit, public peer review, it was quickly discovered that the methodology used in the study was problematic, calling its findings into question.

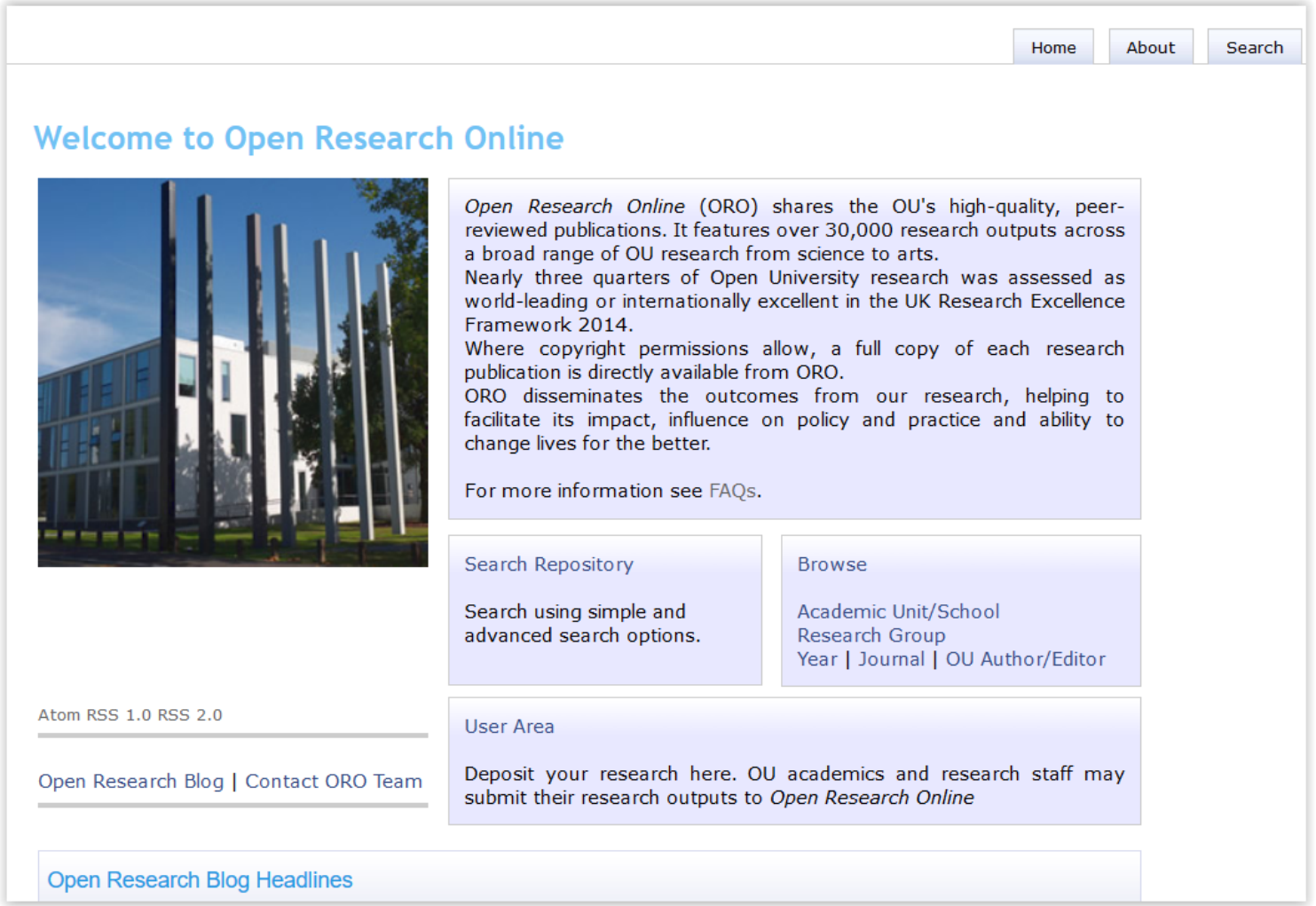
Implicit review is indicated by metadata (eg, tagging, bookmarking, favoriting, retweeting, page views, download numbers) that can signal the extent of connections the work has generated; however, challenges to implementation are that feedback may be superficial, irrelevant, deliberately misleading or derogatory, and metadata may be an inaccurate indicator of implicit review where people "game the system," favoriting or downloading content they never read." (Greenhow & Gleason, 2014)

Open Peer Review
https://f1000research.com



Open Access: Peer-reviewed publications

http://oro.open.ac.uk/



Open SOD: Networked participation

“By maintaining a ***web presence***, scholars may express their opinions, solicit feedback, reflect, share information pertaining to their professional practice, network with colleagues, reach multiple audiences, and cultivate their identity as scholars.” (Veletsianos & Kimmons, 2012)

“We are seeing the development of a "***personal brand***“ among academics as new technologies allow them to establish an audience that is complementary to their institutional one.

For example Open University philosophy lecturer Nigel Warburton has achieved over 5 million downloads of his podcasts.

Key to realizing a ***personal brand*** online is an attitude of openness. This involves sharing aspects of personal life on social network sites, blogging ideas rather than completed articles, and engaging in experiments with new media.” (Pearce et al., 2010)

Open SOD: Networked participation

“Examples of social media used by scholars (Moran, Seaman&Tinti-Kane, 2011) include social network sites (eg, Facebook), wikis (eg, wikispaces), media-sharing services (eg, YouTube), blogging tools (eg, Blogger), microblogging services (eg, Twitter), social bookmarking (eg, Delicious), bibliographic management tools (eg, Zotero) and presentation-sharing tools (eg, Slideshare) (Gruzd, Staves &Wilk, 2012). ” (Greenhow & Greason, 2014)

https://www.facebook.com/facebook

https://www.wikispaces.com/

https://www.youtube.com/

https://www.blogger.com/

https://twitter.com/

https://del.icio.us/

https://www.zotero.org/

https://fr.slideshare.net/

More Web 2.0 tools…

https://educlipper.net/edu_clips/518a828346c25ec78400006b

Personal brand

Open University philosophy lecturer Nigel Warburton on Twitter

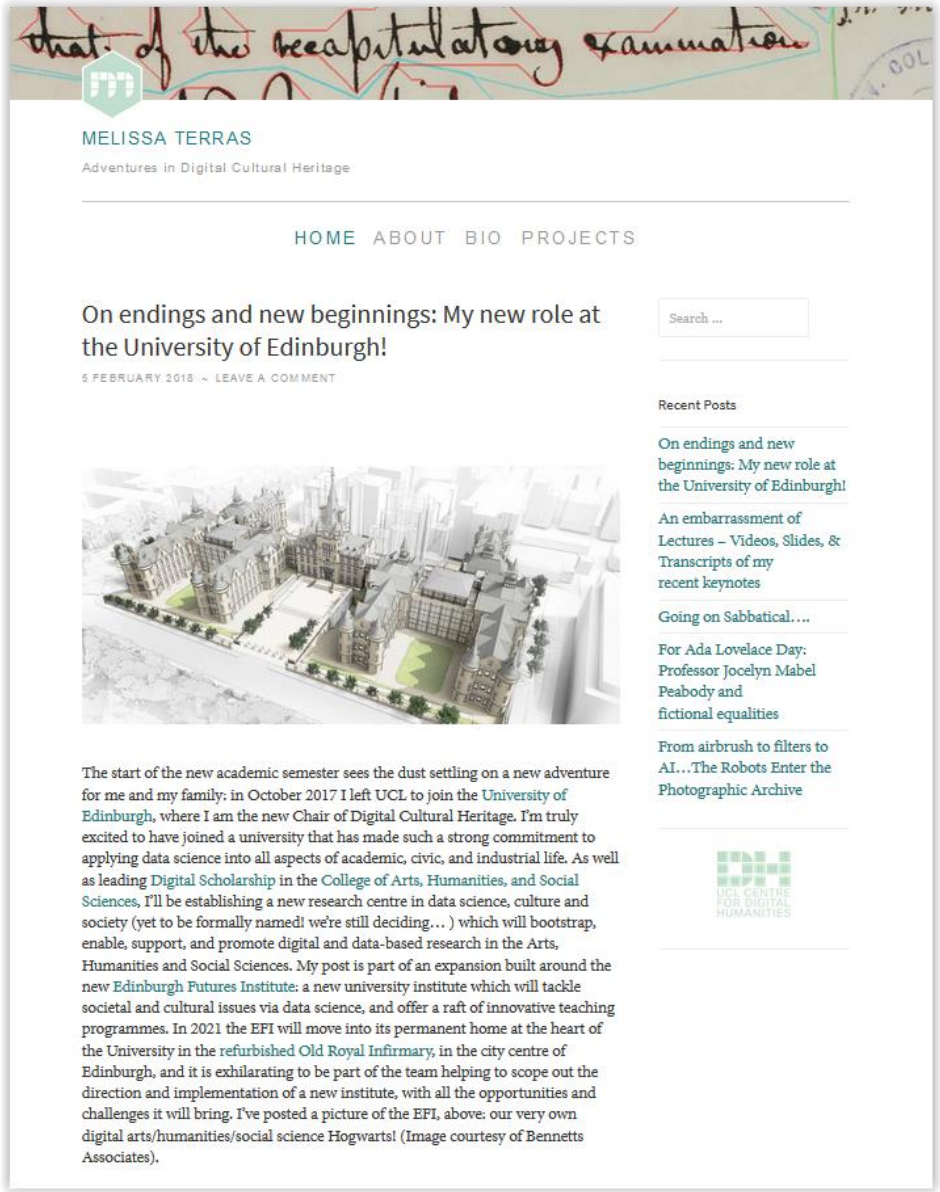
https://twitter.com/philosophybites

Personal brand

Academic blogger Melissa Terras

https://melissaterras.org/

"Academic bloggers for example can gain large audiences and through this reach, engage and interact with new audiences." (Pearce et al., 2010)



MELISSA TERRAS

Adventures in Digital Cultural Heritage

HOME ABOUT BIO PROJECTS

On endings and new beginnings: My new role at the University of Edinburgh!

5 FEBRUARY 2018 ~ LEAVE A COMMENT

The start of the new academic semester sees the dust settling on a new adventure for me and my family: in October 2017 I left UCL to join the University of Edinburgh, where I am the new Chair of Digital Cultural Heritage. I'm truly excited to have joined a university that has made such a strong commitment to applying data science into all aspects of academic, civic, and industrial life. As well as leading Digital Scholarship in the College of Arts, Humanities, and Social Sciences, I'll be establishing a new research centre in data science, culture and society (yet to be formally named! we're still deciding…) which will bootstrap, enable, support, and promote digital and data-based research in the Arts, Humanities and Social Sciences. My post is part of an expansion built around the new Edinburgh Futures Institute: a new university institute which will tackle societal and cultural issues via data science, and offer a raft of innovative teaching programmes. In 2021 the EFI will move into its permanent home at the heart of the University in the refurbished Old Royal Infirmary, in the city centre of Edinburgh, and it is exhilarating to be part of the team helping to scope out the direction and implementation of a new institute, with all the opportunities and challenges it will bring. I've posted a picture of the EFI, above: our very own digital arts/humanities/social science Hogwarts! (Image courtesy of Bennetts Associates).

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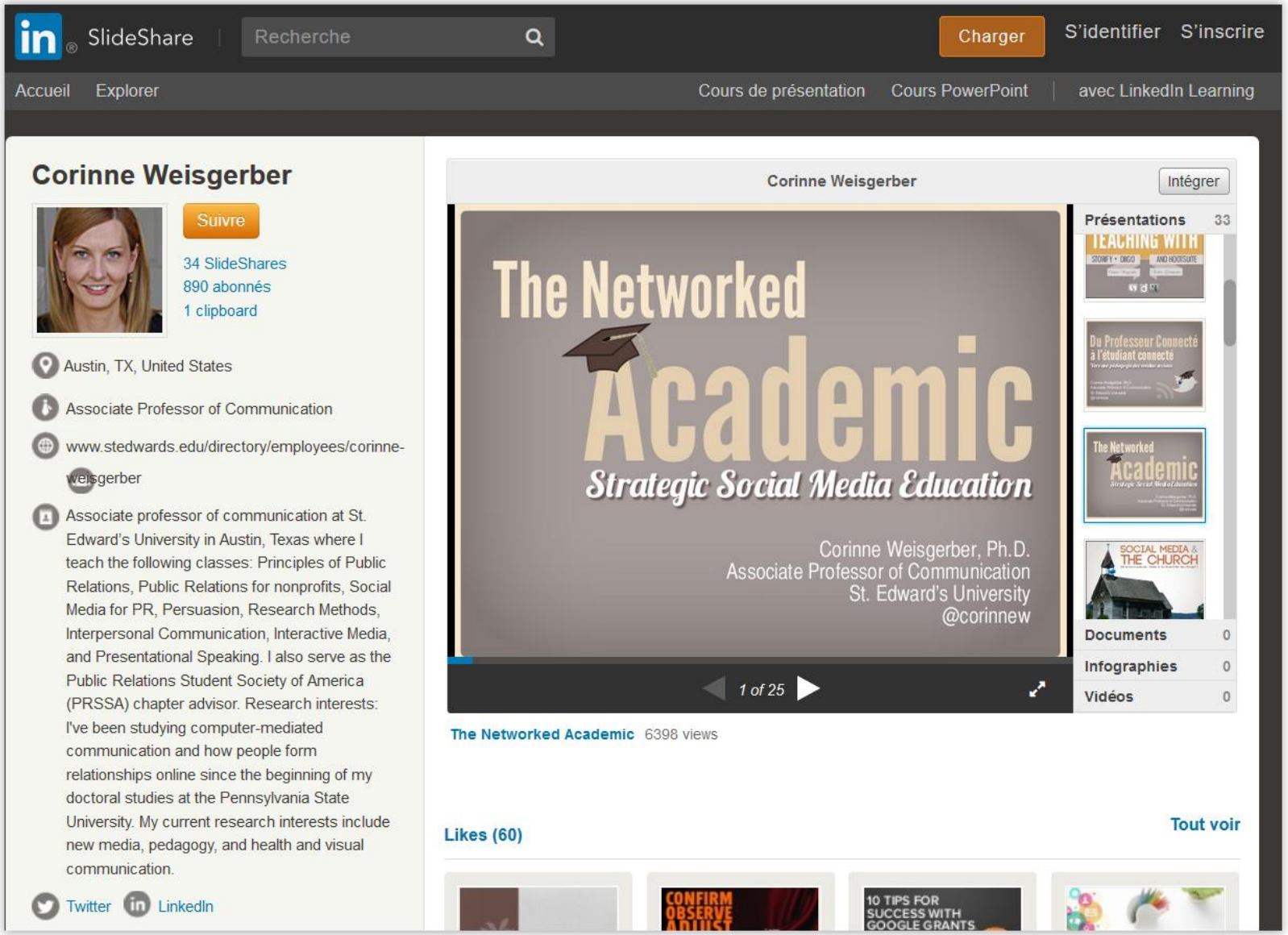
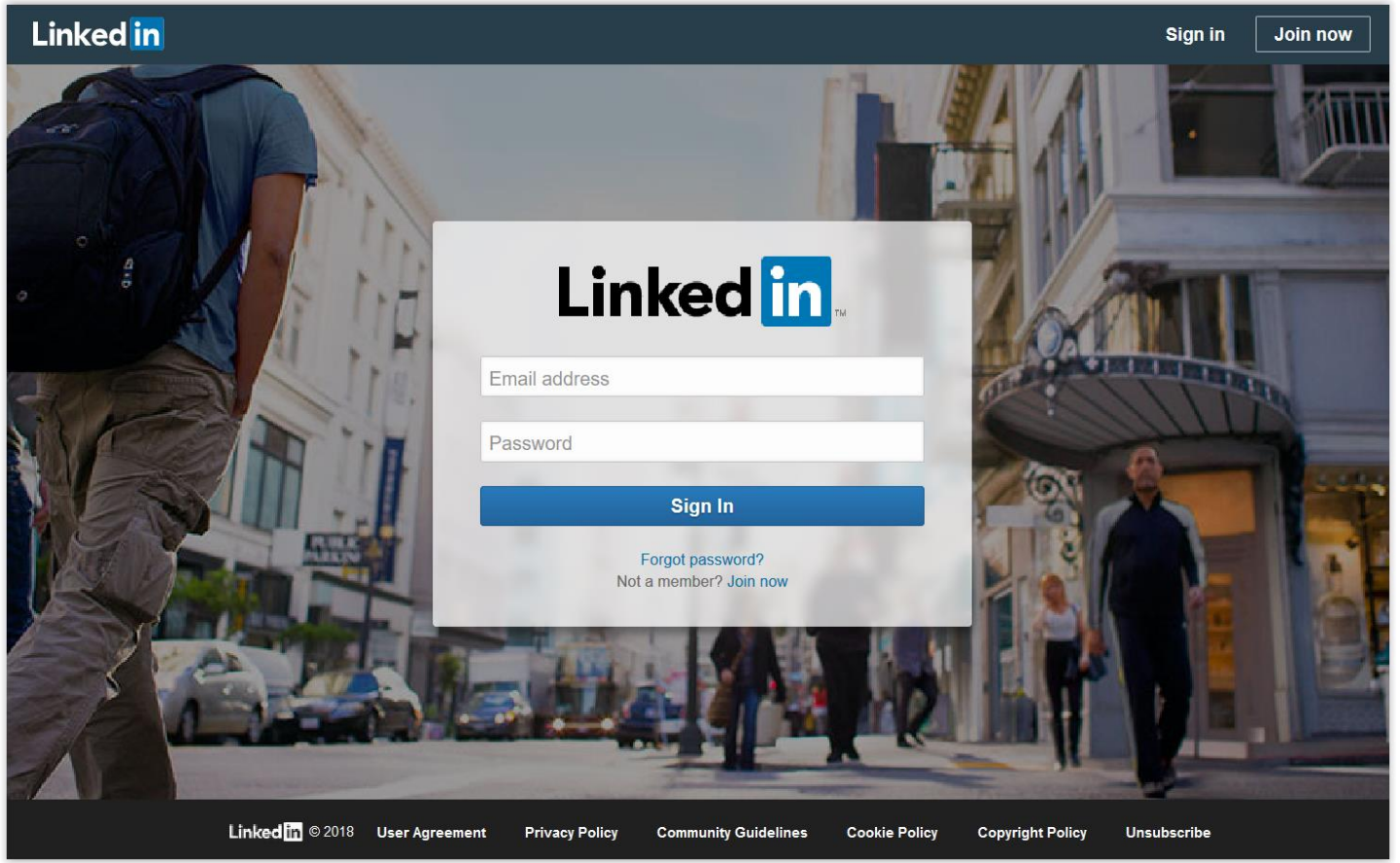
Personal brand
Academic on SlideShare
https://fr.slideshare.net/corinnew



Open Scholarship, digital identity and networking

https://be.linkedin.com/

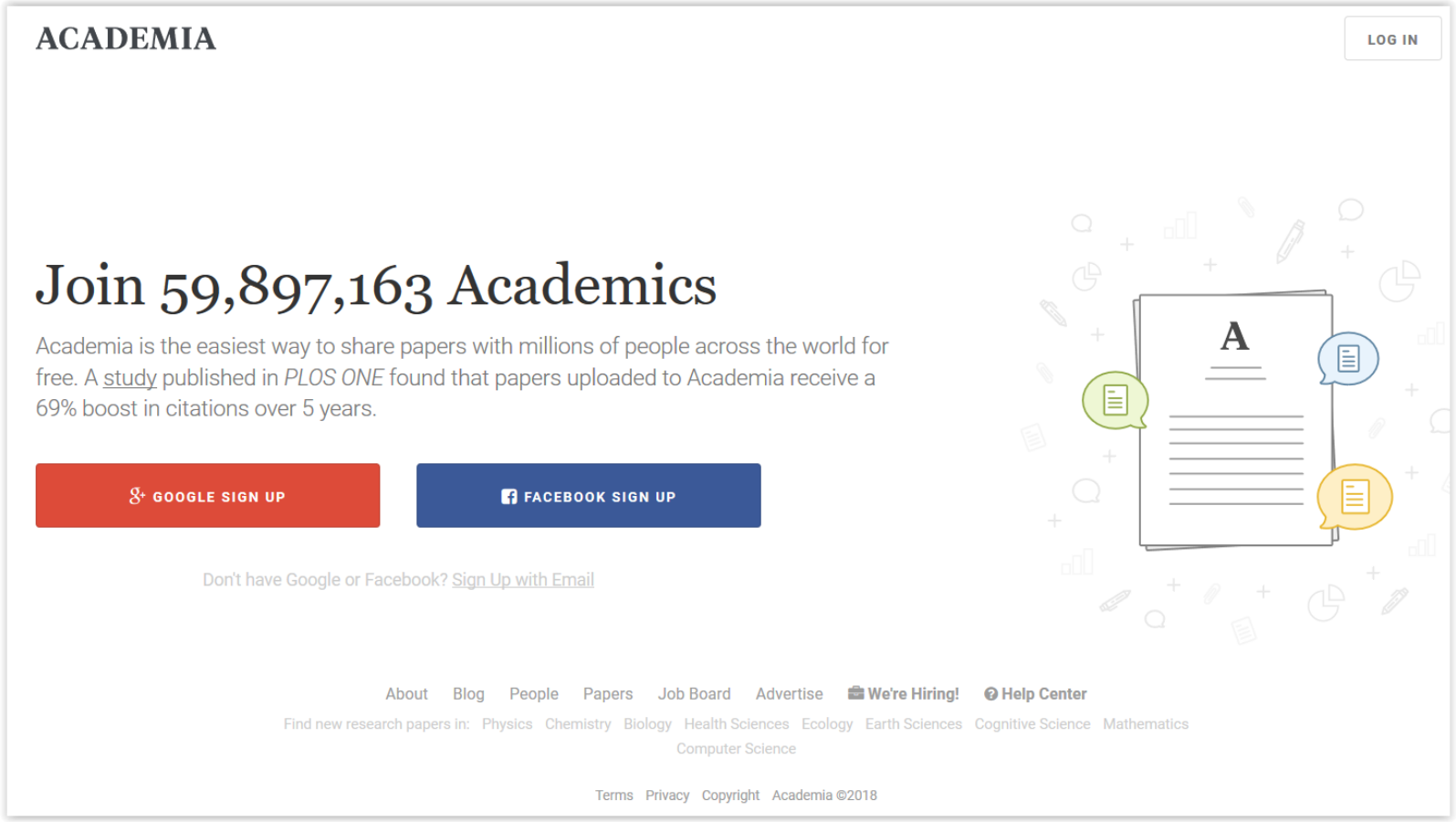
Social networking site for professionals



Open Scholarship, digital identity and networking

https://www.academia.edu/

Social networking site for academics



Framework 1: Open SOI

"A second dimension of Boyer's (1990) framework, the SOI, exists ***at the boundaries between disciplines***. It is concerned with connecting work that can interpret "new intellectual questions" arising from complex, societal problems (Boyer, 1990, p. 21). Scholars practicing the SOI must be able to critically analyze, interpret, integrate knowledge from different disciplines and create novel perspectives that yield more comprehensive understanding." (Greenhow & Gleason, 2014)

"Reconsidering SOI through the lens of social scholarship values and social media affordances suggests greater opportunities for advancing integration work today." (Greenhow & Gleason, 2014)

"For example, adoption of social media globally has facilitated ***large-scale data sharing and big data sets*** that can be mined in collaborative, interdisciplinary teams to illuminate complex issues. […] However, research involving big data can also be extremely problematic. It can oversimplify complex human actions and motivations; magnify data errors when data sets are combined; create ethical and Internal Review Board issues when anonymous data are published and then de-anonymized through the interrogation process; and create divides between those who have access to big data and those who do not (Boyd & Crawford, 2011)." (Greenhow & Gleason, 2014)

Framework 1: Open SOTL

"A third dimension of Boyer's framework, the SOTL, is defined as "stimulating active learning" by encouraging students to be "critical, creative thinkers" (p. 24). Scholars of teaching are expected to "transform and extend" knowledge in ways that push all learners in new directions (p. 24). Thus, SOTL extends beyond simply delivering content to describe a process that transforms and expands students' learning, their teacher–scholar's learning and advances ***knowledge of evidence-based "best" teaching practices***. Scholars of teaching take a studied approach to their pedagogy (eg, using classroom research to inform instructional designs)." (Greenhow & Gleason, 2014)

"Reconsidering the SOTL through the lens of social scholarship values and social media affordances suggests both amplification and disruption of existing practices." (Greenhow & Gleason, 2014)

Framework 1: Open SOTL

Open Educational Resources, Open Teaching and Open Courses:

"The open educational resources (OER) and open teaching movements seek "to provide open access to high quality digital educational material" (Caswell, et al., 2008) in a "spirit similar to that of free and open software" (Wiley, 2003) and OA journals. […] Numerous universities have made available course materials to the public in the form of syllabi, video lectures, audio recordings, course notes, presentation files, and other learning objects. Institutions have also recently begun offering a type of free online course referred to as massive open online courses (MOOCs). The major difference between MOOCs and OER is that the former are intended to serve as online learning environments that support learners in the educational process (e.g., providing feedback, completing assignments, sharing information, etc.), rather than merely making content available to them." (Veletsianos & Kimmons, 2012)

Framework 1: Open SOTL

"For instance, incorporating social media in one's teaching can facilitate the kinds of transformative and ***active learning*** that Boyer (1990) advocates, leading to higher student engagement and instructor knowledge (Greenhow & Gleason, 2012). Insights gained as teacher–scholars situate their practice in public social media spaces cannot only be fed back into the teaching process and used to improve pedagogy but also foster a new ethos in SOTL that values ***collaboration*** and greater public participation in shaping classroom practices." (Greenhow & Gleason, 2014)

"Scholars and graduate students who teach in the domain of technology-enhanced learning may recognize a useful connection between the integration of social media within their teaching and the growing importance of ***learning analytics*** across the higher education sector around the world (eg, see Ellis, 2013). Defined as the "measurement, collection, analysis, and reporting of data about learners and their contexts," ***learning analytics*** can identify patterns of student behaviors and activity and be used to improve student learning and university teaching, provide data for program improvement, and support better informed decision-making, transparency and accountability at the institutional level (Ferguson, 2012, n.p. as cited in Ellis, 2013)." (Greenhow & Gleason, 2014)

Framework 1: Open SOA

"A fourth dimension of Boyer's framework, the SOA, aims to serve the interests of the larger community through a dynamic interaction between theory and practice. Through investigation into intractable social problems, scholars find an application for their unique "skills and insights" (Boyer, 1990, pp. 22–3). Application scholarship links the other forms of scholarship with ***practice***; scholars partner with various stakeholders (eg, practitioners, policymakers, community leaders) to apply theory and research-based insights to designing practical solutions." (Greenhow & Gleason, 2014)

Opening up the bounderies between Academia and the 'Real World':

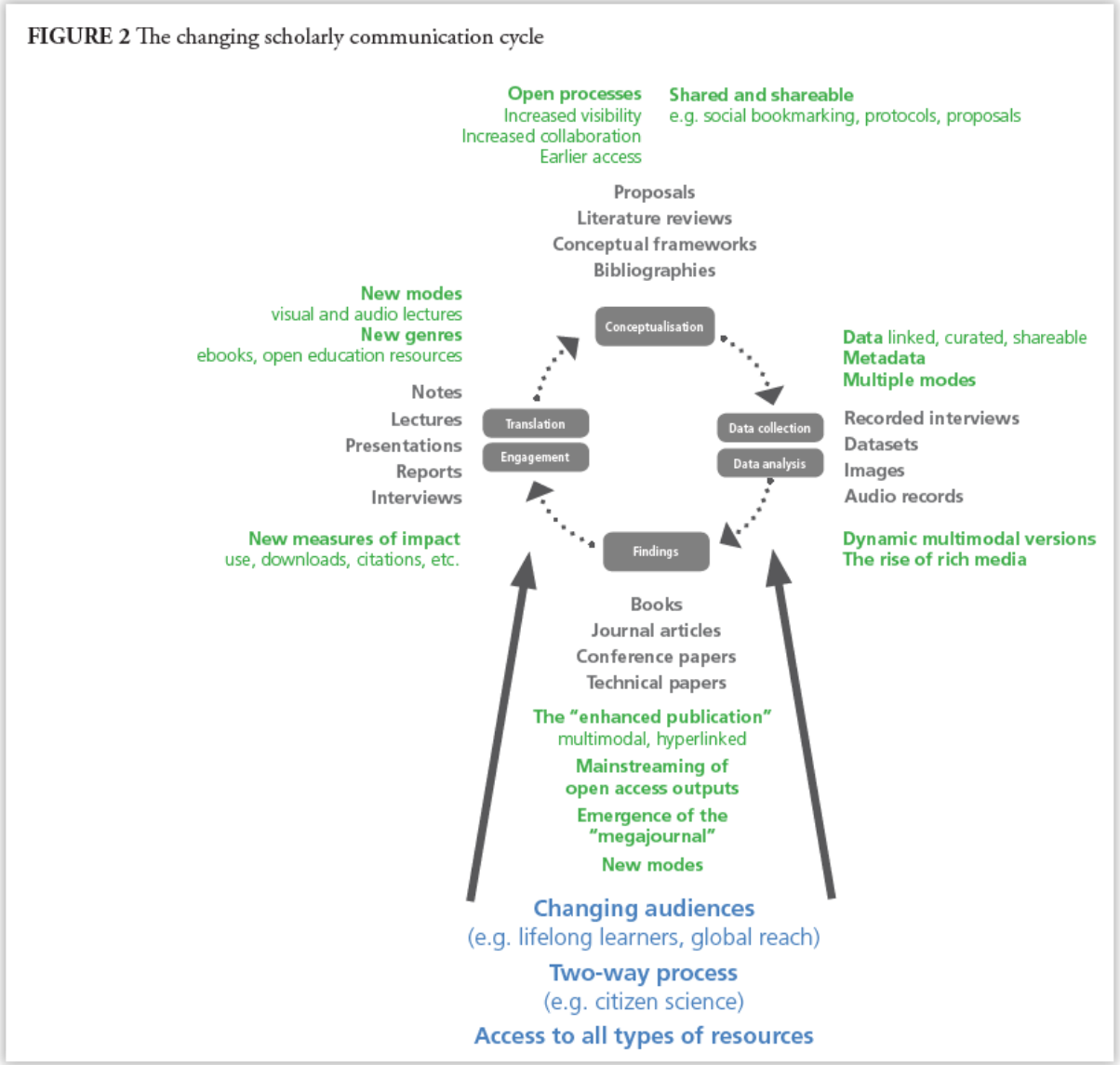
"Academics have been enthusiastic users of many new communication technologies in order to participate in wider global debates relevant to their field." (Pearce et al., 2010)

Framework 2: Scholarly communication cycle in the age of Web 2.0

"[Czerniewicz (2013) outlines the ways in which scholarly communication is changing at each stage of this cycle, as, with the advent of Web 2.0 technologies and the affordances offered by digital forms of content and communication, scholarly work can be shared and communicated by scholars directly into the public domain at all stages of the research process.

The 3 elements that come into play at each stage of the research cycle: social relations, audiences/users and forms of communication. Each of these can be considered in terms of their degrees of openness."

(Czerniewicz et al., 2014)



Framework 2: Moving towards 'open research'?

"Whyte and Pryor (2011: 207), referring to the sharing of resources in their study of researcher perspectives of open science, suggest that this continuum moves from the most closed, private management (sharing within a research group) to collaborative sharing (sharing between members of a consortium) to peer exchange (sharing on the understanding that disclosure or reuse have conditions attached, between members of a researcher's network of peers) to transparent governance (disclosure to an external party according to a publicly accountable code) to community sharing (access or reuse limited to identifiable members of a research community) to public sharing (sharing where resources are made available for access by any member of the public), with this last being the most open." (Czerniewicz et al., 2014)

A few assumptions & challenges related to OS
Scholars' engagement with OS

"A few reasons have already been proposed in the literature that may describe ***why scholars might not engage with digital scholarship***. First, higher education faculty may be more inclined to use "traditional" technologies in their practice, such as email, than students (Roblyer, McDaniel, Webb, Herman, & Witty, 2010), and thereby may not necessarily capitalize on networked opportunities for scholarship. A second reason may be due to the relative newness of the concept of open scholarship and specialized social media tools targeting scholars, as social networking sites for academics (e.g., Mendeley and Academia.edu) have only been available since about 2007. As with every emerging technology used in education, it takes time for these tools to be evaluated, adopted, and appropriated into wide practice (Veletsianos, 2010). Finally, Zaugg, West, Tateishi, and Randall (2011, p. 32) argue that widespread use of such tools may be hindered because scholars might (a) perceive social media as an unnecessary time commitment and (b) "hesitate to openly post their developing research lest they get pre-empted by another researcher or receive public criticism for their still-evolving research."" (Veletsianos & Kimmons, 2012)

"Two crucial elements remain in short supply in the emerging field. First, the number of scholars willing to commit themselves and their careers to digital scholarship has not kept pace with institutional opportunities. Second, today few scholars are trying, as they did earlier in the web's history, to reimagine the form as well as the substance of scholarship. In some ways, scholarly innovation has been domesticated, with the very ubiquity of the web bringing a lowered sense of excitement, possibility, and urgency. ***These two deficiencies form a reinforcing cycle***: the diminished sense of possibility weakens the incentive for scholars to take risks, and the unwillingness to take risks limits the impact and excitement generated by boldly innovative projects." (Ayers, 2013)

However… ☺

“Many scholars hope and anticipate that open practices will broaden access to education and knowledge, reduce costs, enhance the impact and reach of scholarship and education, and foster the development of more equitable, effective, efficient, and transparent scholarly and educational processes.” (Veletsianos & Kimmons, 2012)

A few assumptions & challenges related to OS

Assumptions and Challenges facing Open Scholarship

Common themes and assumptions	Challenges
Open scholarship has a strong ideological basis rooted in an ethical pursuit for democratization, fundamental human rights, equality, and justice	Are these ideals essential components of the open scholarship movement or are they merely incidental to those who are pioneering the field?
Open scholarship emphasizes the importance of digital participation for enhanced scholarly outcomes	Scholars need to develop an understanding of participatory cultures and social/digital literacies in order to take full advantage of open scholarship. Need to redesign university curricula to prepare future scholars to account for the changing nature of scholarship.
Open scholarship is treated as an emergent scholarly phenomenon that is co-evolutionary with technological advancements in the larger culture	Technology both shapes and is shaped by practice. Technology is not neutral, and its embedded values may advance tensions and compromises (e.g., flat relationships, homophily, filter bubbles).
Open scholarship is seen as a practical and effective means for achieving scholarly aims that are socially valuable	Open scholarship introduces new dilemmas and needs (e.g., personal information management challenges; social stratification and exclusion).

(Veletsianos & Kimmons, 2012)

Assumption #1: Ideals of Democratization, Human Rights, Equality, and Justice

"We should consider the possibility that scholars engage in open scholarly practices for a variety of reasons that ***may not be entirely noble*** (Veletsianos, 2012)." (Veletsianos & Kimmons, 2012)

"We see a pressing need for a ***critical examination of open scholarly practices***, because the dominant educational technology narratives embraced in the field present an overwhelmingly positive picture of technology use in education that we believe is detrimental to our future." (Veletsianos & Kimmons, 2012)

Assumption #2: Emphases on Digital Participation for Enhanced Outcomes

"While technological advances may enable scholars efficient access to up-to-date information, networks of colleagues, and the potential to connect and network with diverse audiences, scholars need to develop ***an understanding of participatory*** cultures in order to take full advantage of open scholarship." (Veletsianos & Kimmons, 2012)

"Unequal access to technology and/or lack of digital literacies is referred to as the ***participation gap*** (c.f. Jenkins et al., 2006). In the context of open scholarship, the ***participation gap*** may refer to those scholars and learners who participate in networked spaces and are able to take advantage of digital literacies to advance their learning, teaching, research, and career (e.g., learning new teaching approaches, bringing their research to the attention of broad audiences, organizing colleagues to tackle important professional issues) vis-à-vis those who have had no exposure to participatory cultures or who do not have the essential literacies to engage in such activities online." (Veletsianos & Kimmons, 2012)

Assumption #3: Co-Evolutionary Relationship between Technology and Culture

"We must recognize that technology, and social media in particular, are ***not neutral***. […] Technologies have embedded values and norms that may be in conflict with the values and norms of higher education cultures, advancing tensions and compromises." (Veletsianos & Kimmons, 2012)

"Given the fact that various technologies are negotiated spaces with embedded values, we should recognize that practices developing in conjunction with emergent technologies (e.g., Facebook, Twitter, Google) will be influenced by the embedded values of those technologies and that not all of these influences may be positive." (Veletsianos & Kimmons, 2012)

> "For example, though Twitter might allow researchers to follow one another and discuss topics of interest, such discussions may go unchallenged if participants are only followed by those who have similar educational training and beliefs." (Veletsianos & Kimmons, 2012)

Assumption #4: Practicality and Effectiveness for Achieving Scholarly Aims

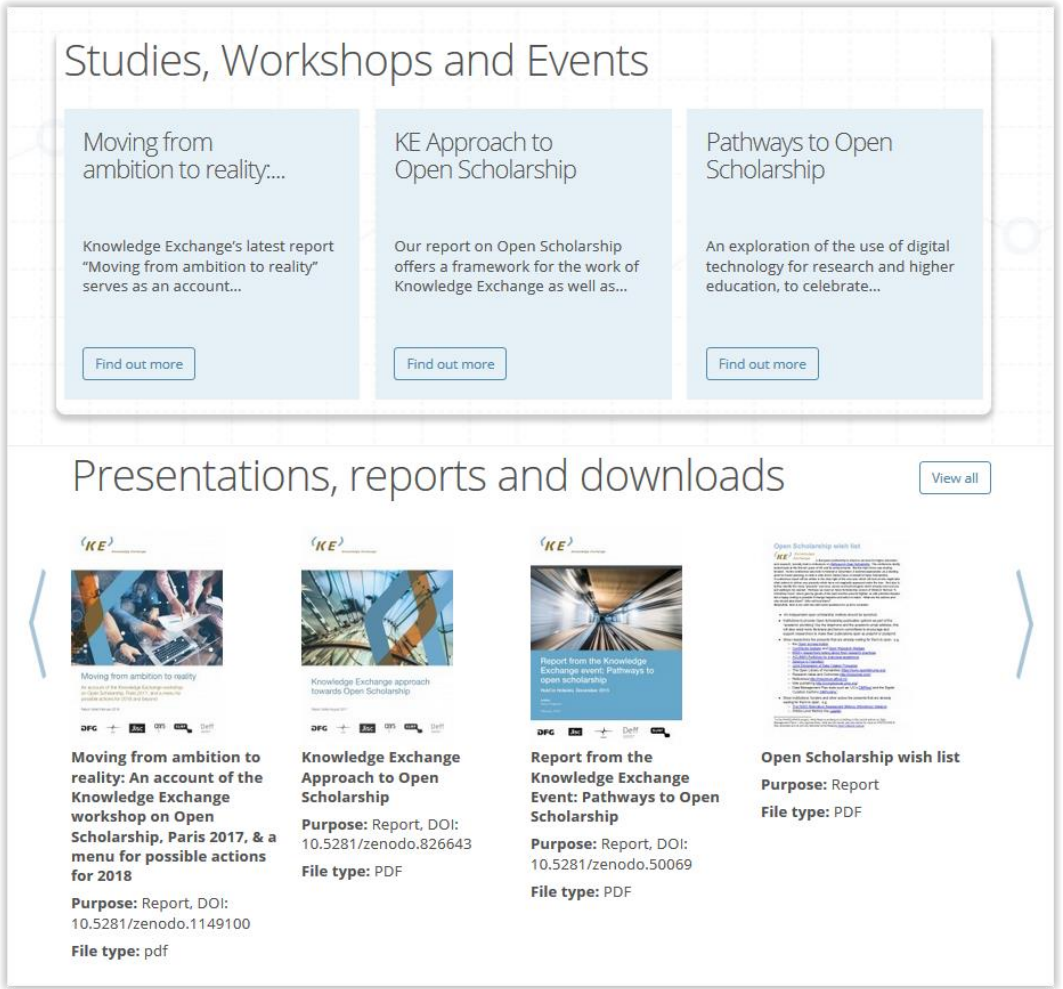
"Though open scholarship may offer some clear benefits to improve scholarly efficiency and to practically address perennial problems in scholarly institutions (e.g., data sharing, research dissemination), such practices may also open the door to ***new dilemmas*** and make some aspects of current practice less efficient." (Veletsianos & Kimmons, 2012)

"Scholars may come to face a ***personal information management challenge*** that entails (a) keeping up-to-date with newly published information, (b) filtering information, (c) rapidly differentiating between helpful and irrelevant information, and (d) saving helpful information for future retrieval. In other words, though open practices may make some aspects of scholarly practice more efficient (e.g., information sharing), such efficiency may create bottlenecks for other aspects of scholarly endeavor (e.g., differentiating between important and peripheral information). To overcome this challenge, scholars need to develop skills, devise methods, and use technologies to manage (e.g., efficiently collect, categorize, and retrieve) digital information pertinent to their work and their digital participation. RSS readers and aggregators for example are viable solutions to information management challenges." (Veletsianos & Kimmons, 2012)

"However, merely developing digital literacies, effectively using technologies, and participating in online scholarly communities does not mean that scholars will necessarily become efficient or equal participants in online spaces." (Veletsianos & Kimmons, 2012)

Interested in learning more about OS? Check websites dedicated to the topic ☺

http://www.knowledge-exchange.info/projects/project/open-scholarship



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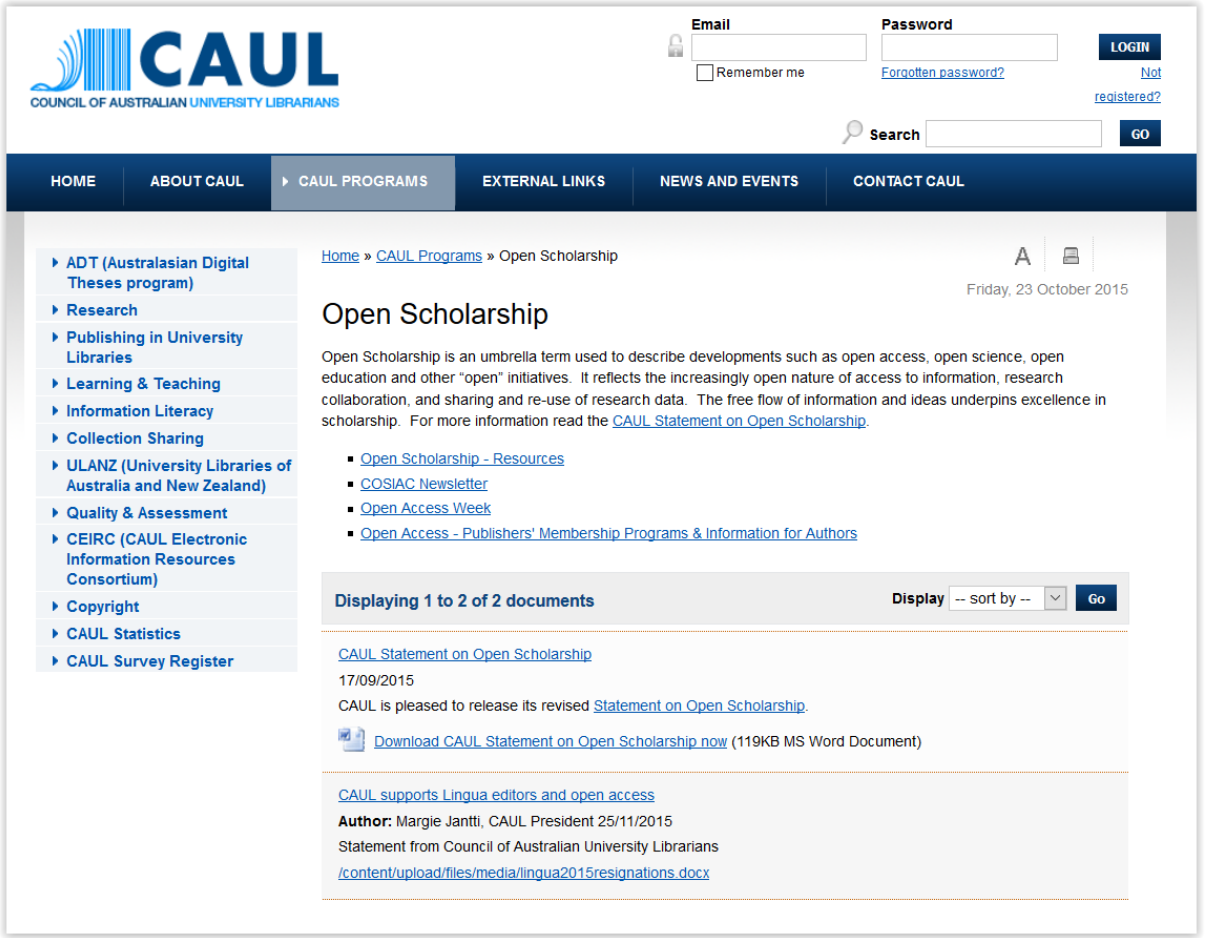
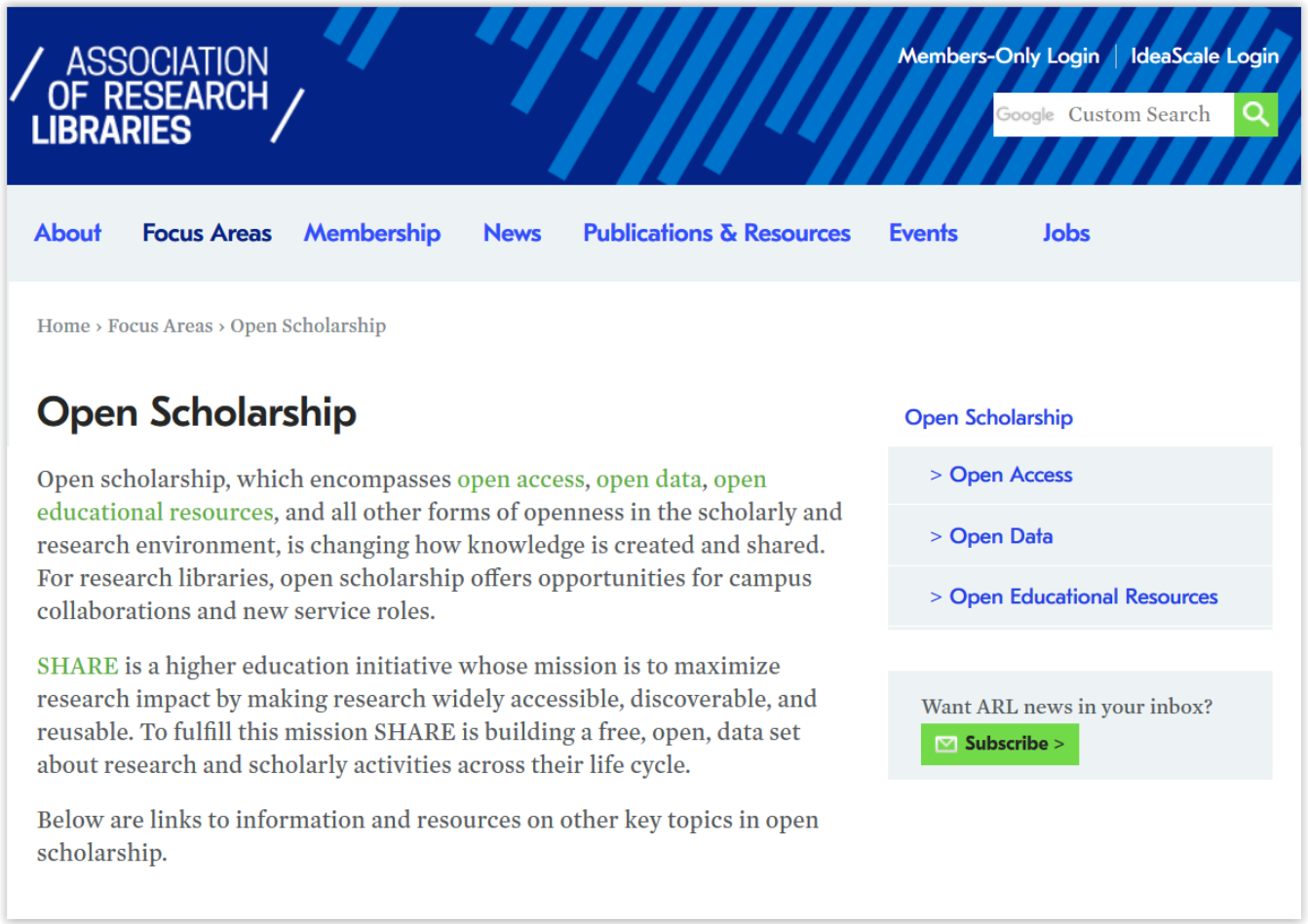
http://www.caul.edu.au/caul-programs/open-scholarship



Interested in learning more about OS? Check websites dedicated to the topic ☺

http://www.arl.org/focus-areas/open-scholarship



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Thank you for your attention

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