



Australian Research Collaboration Service



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“Social Networking and Weblog Sites for Researchers” Eresearch 2009

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An Australian Government Initiative
National Collaborative Research
Institute Strategy

Reasons for Collaboration



The Rhys Francis (Executive Director AeRIC) inspiration moment.

“For many researchers the information is already out there or someone else is looking at the same questions. The problem is they don't have the collaborative tools to know this.”

Replication of research is expensive and time-consuming. Figures derived from Froomkin modified for Australian conditions suggest that \$13 billion per annum (2006 dollars) could be saved if publically funded research was publically available. This is the third most significant economic reform that could be undertaken (after tax reform based on resource values rather than capital and labour and removing multiple and contradictory legislation between states.)

Barriers and Technology

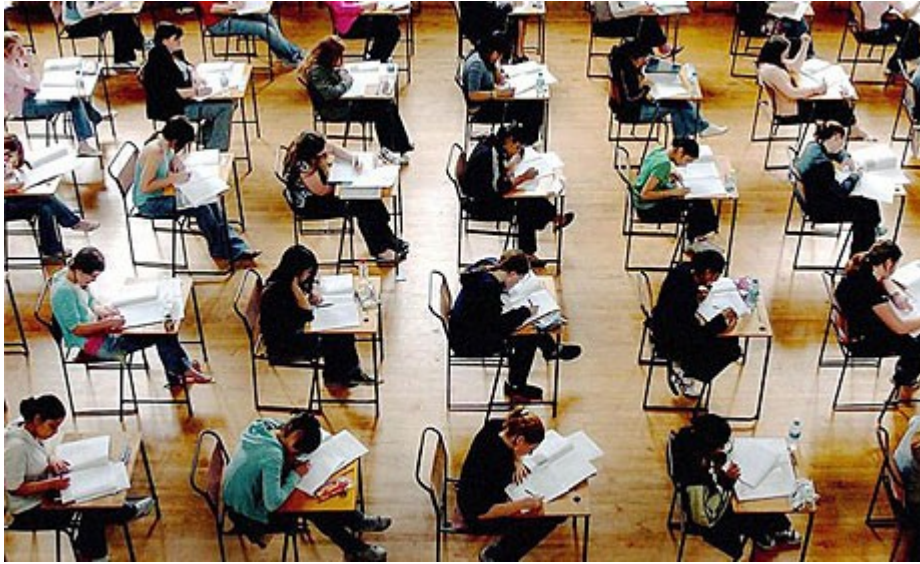
On the political-economic the use of temporary legal monopolies as various forms of intellectual property (trademarks, patents, copyrights) add as an artificial barrier to the improvement of knowledge. They are implemented as a means to offset the high marginal cost in producing the first product but the low marginal costs in further replication.

Communications technology makes the distribution of knowledge relatively inexpensive to the production of knowledge. Networking is relatively more powerful than computing.

In a psychological sense it raises the question 'how do we know things'? 'how do we learn'? 'what is intelligence'?

In the early 20th century there was an interest in psychometric tests for intelligence. But true to an individualistic approach to knowledge and reasoning the assessments look like this....

Knowledge Is Proximal

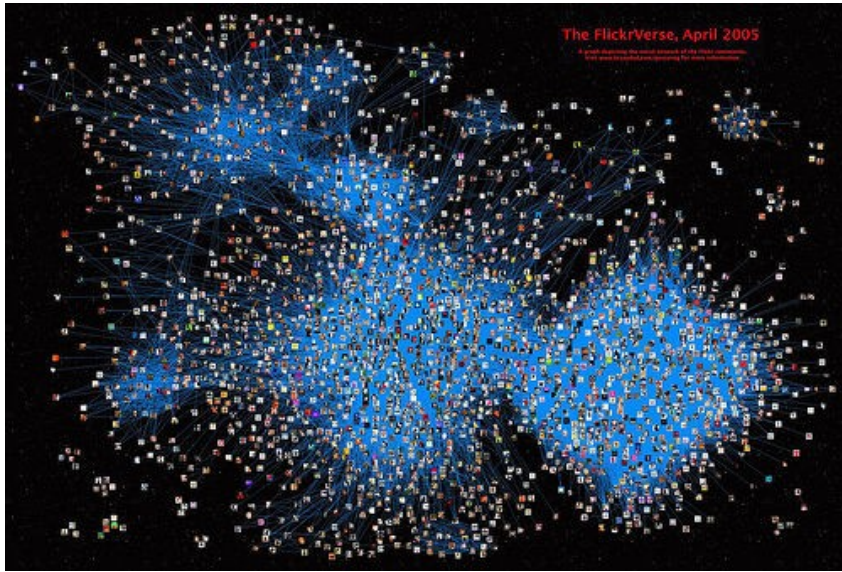


Most twentieth century model assume that knowledge and intelligence is entirely internal and subject-centred. But this is *not* how most people know and learn most things!

Individual assessment and knowledge has its place and is important in some circumstances (e.g., real-time pilot training).

Compare with Lev Vygotsky's Proximal intelligence. Going through Vygotsky's developmental psychology *Mind and Society* one notices the enormous contribution it is making parallel to symbolic interactionism in sociology (George Herbert Mead, *Mind, Self and Society*) and linguistic philosophy (the later works of Ludwig Wittgenstein, *Philosophical Investigations*). We *do* have our own internal intelligence and knowledge. But we can also, through social networks, draw upon the intelligence or knowledge of others.

Knowledge Is A Network

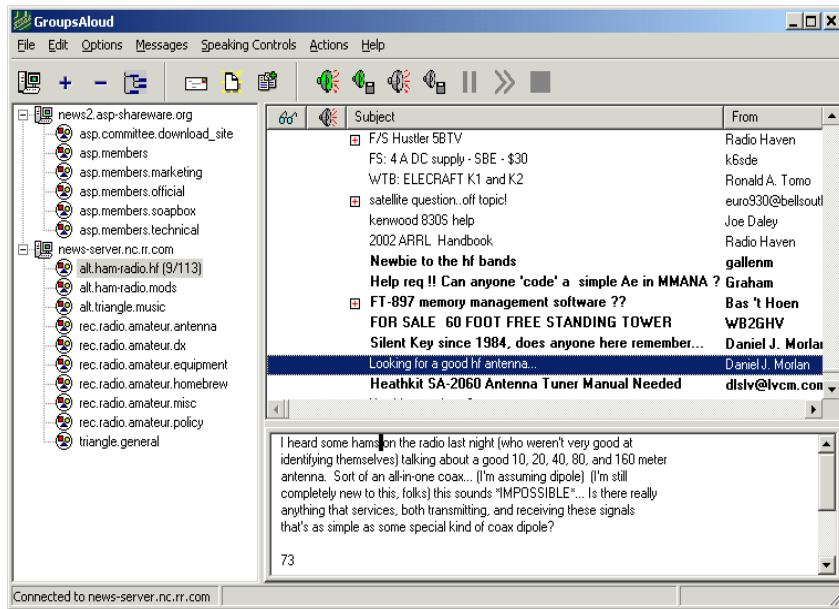


How do we apply this theory of knowledge to the practise of research and Australian research in particular?

Where do researchers currently get their information from? Face-to-face discussions? Lectures? Libraries? Journals? Online journals? Specialist mailing lists?

The success of any technologically-mediated research tool must ultimately come down to the capacity of that tool to provide the data and the research avenues in a timely and cost-efficient manner. Tools which do not provide the requisite data, have a high signal/noise ratio, are difficult to use, fail to aggregate material etc. do not contribute to any sort of competitive advantage that Australian research can hope to gain.

Collaborative Research Tools



The much discussed “Web 2.0” technologies have their historical precursors from the late 1970s onwards with USENET/NNTP, BITNET, BIOSCI, various mailing list technologies (ListServ, Sympa, Mailman), and BBS systems (e.g., the WELL). The experience of using these technologies, their successes and problems, is highly relevant.

Two major theoretical approaches can be taken when reviewing social networking and weblog sites; a phenomenological approach (deriving from Innis *The Bias of Communication*, McLuhan's *Understanding Media* and Ihde *Technics and Praxis*) and a literary analysis approach (e.g., Frye's *Anatomy of Criticism*). The former primarily deals with how the subject-experience of the technology frames the information that it contents. The latter concentrates on analysing and evaluating the content itself.

“The Medium is the Message”

The phenomenological approach generated some initial successes. For example it was quickly clear that in most cases various real-time collaborative technologies (Access Grid, EVO, instant messaging) had modest utility for conducting research. Asynchronous, permanent records in written form are usually superior.

Microblogging tools (e.g., Twitter) were also considered inappropriate. The technology itself limits presentation and leads to “manic thinking”. It regularly updates, strengthens social connections, but is not a good tool for researchers.



A Phenomeology of social networking and 'blogging tools

Comparisons between various social networking sites (e.g., Friendster, MySpace, Facebook, Bebo) and 'blogging sites (e.g., Wordpress, Blogger, Vox) indicated moderately significant differences in experience of the technology itself.

The most significant is that the social networking sites succeed in ensuring when they provide high levels of connectivity with others, but do not usually provide the sort of content that higher education researchers would find useful. In contrast the various weblog sites often succeed in providing sophisticated content, but the material is often difficult to find (obvious web search tools like google notwithstanding) and alerting mechanisms have not reached technological maturity (RSS feeds also notwithstanding).

bebo



friendster

myspace.com
a place for friends

facebook

VOX™

WORDPRESS

Networking and Weblogging



LIVEJOURNAL

One technology that stood out as providing both networking capacity and a weblogging approach appropriate for research needs was Livejournal and its various other implementations (Livejournal's code is free and open-source), including Blurty, Deadjournal and formally GreatestJournal, and recently Dreamwidth which has a significant developer community and has introduced a variety of new tools to the technology.



The advantage with the LJ/DW collaborative system is that it combines both networking and weblogging features. The networking features allows for reading subscriptions, searches for name, interest and location, and the 'blogging features both aggregates (including RSS feeds) and has a default size approximating that of research abstracts. Livejournal/DW, based on a random sample, does tend to have fewer users but often more useful content.

Substance Over Style



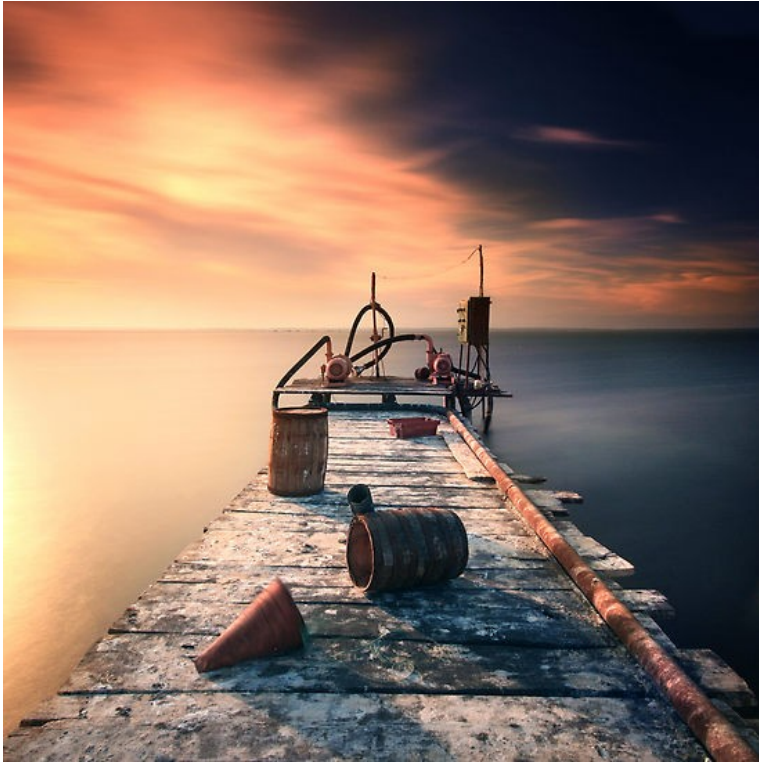
Phenomenological analysis provides a explanation of *which* technologies would be preferable for Australian researchers in terms of tools. A literary analysis provides an explanation of *how* it would be administered. The first and obvious issue that arises actually relates to both phenomenology of psychology and content-analysis. Content is altered by the technological medium and, coupled with anonymity, results in material that does not provide a useful contribution to knowledge generation, an issue that has been researched in depth by Elizabeth Reid Steere since the early 90s. Accounts *must* publically identify the user and content *must* be relevant.

Content, Not Social, Networks

Another issue derived from content analysis but based on the psychology of phenomenology is the way that people approach social networking technologies with the emphasis on the social connection, rather than the content. The primary search fields should be for content (e.g., Flickr), not people. Subscription lists and reading lists need to be kept private to prevent cliquey competition. ***We do not need a Facebook for researchers. Facebook already exists.***



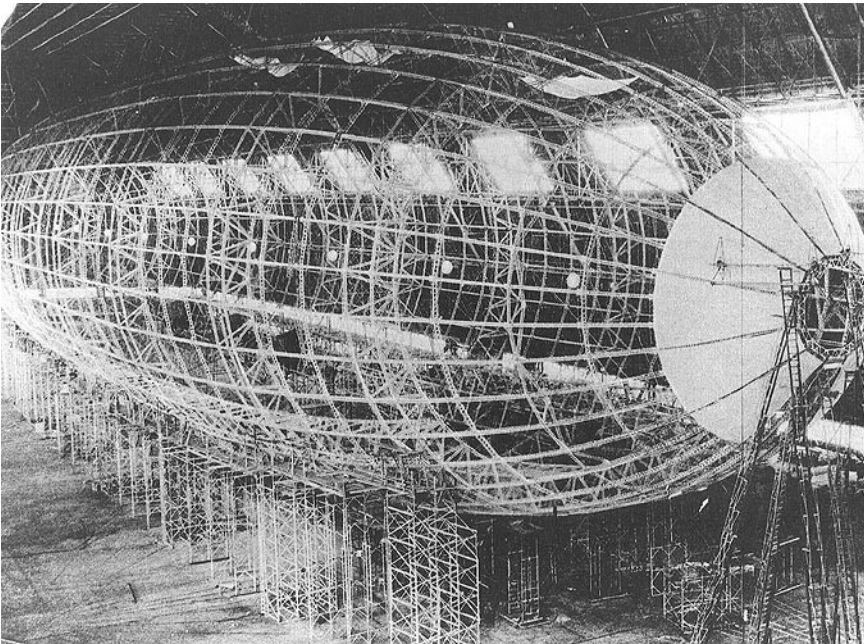
Build It And They Will Not Come



Providing the technology itself will be insufficient. Researchers must be provided accounts automatically using Shibboleth SSO technologies, and these accounts must also include membership to existing research communities based on identifiers derived from disciplinary and research areas (e.g., University of Melbourne's "Find An Expert", University of Queensland's reSEARCHers, Cornell University's VIVO project) and association with the Online Research Collections Project (ORCA) using meaningful association of metadata with research projects.

(image, Vladimir Konovalov's "Road to Nowhere")

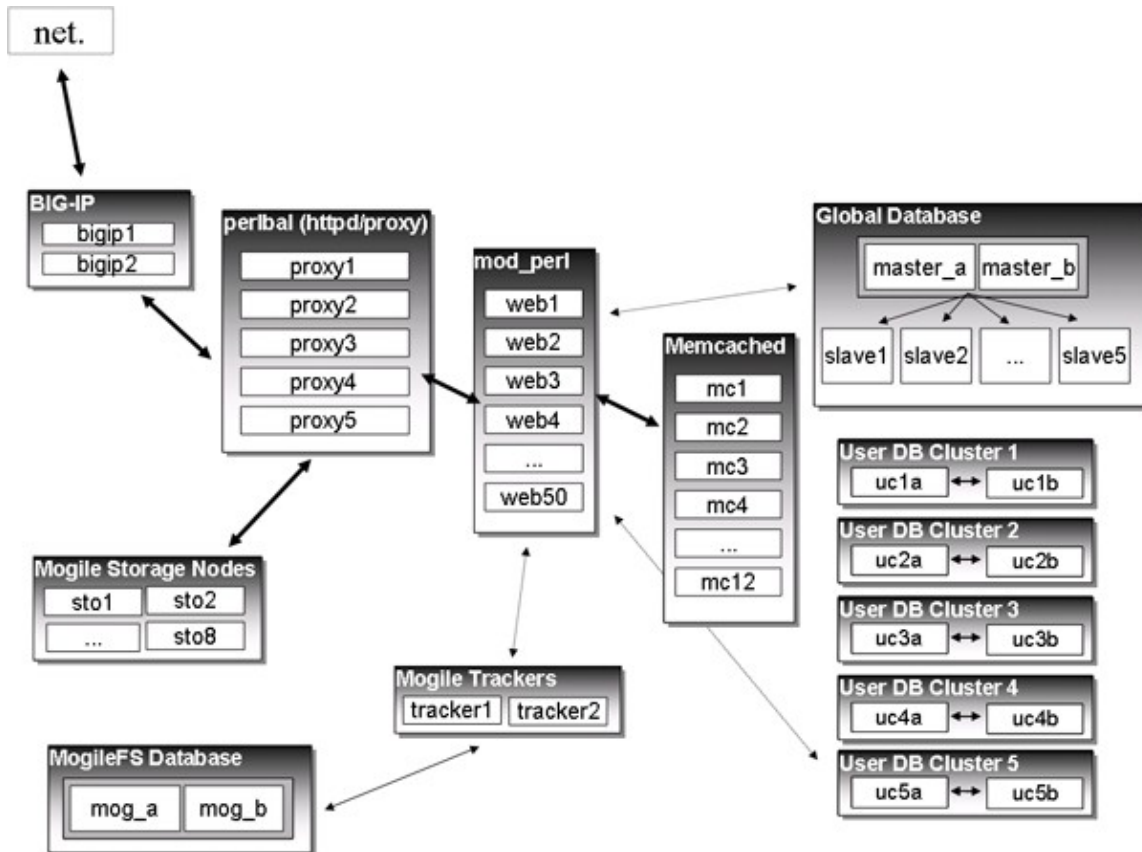
Current Status and Future



Dreamwidth project in stable but beta phase, with weekly code development. Basic system has been installed and tested in ARCS. Most core modifications required for research are easy to implement (e.g., no public subscription or reading lists, primary searches based on research content rather than individuals).

The greatest perceived difficulty is the administrative side; ensuring that the relevant higher education institutions are integrated in providing ARCSjournal accounts and associating these accounts with research communities and data. Remember: (i) Nobody else in the world is doing this; it is an opportunity for Australia's competitive advantage and (ii) It can save billions of dollars from reducing replicated and existing research.

Questions and Thanks



Further questions and information invited:
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Thanks to Simon Porter for his VeRSI paper and presentation: *Achieving a Facebook for Research*, 2009 and to Brad Fitzpatrick for creating Livejournal in the first place.