Bringing research and researchers to light: current and emerging challenges for a discipline-based knowledge resource

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'The challenge for developers of humanities e-research groupings is to ensure they move beyond the use of the technology as a means of enabling the sharing of data and information—an 'information commons'—and become a forum that enables, supports and sustains collaborative, distributed scholarship—a 'research commons'[1]

Scholarship, teaching and research in Australian story-making cultures have, in the past decade, been greatly assisted by AustLit: The Australian Literature Resource[2], a multi-institutional e-research collaboration between researchers, librarians and software designers from ten universities and the National Library of Australia. Under the leadership of The University of Queensland, and with funding from the Australian Research Council, the university partners[3], the Australian Learning and Teaching Council and the NCRIS NeAT scheme[4], this collaboration has developed a web-based research environment supporting a range of specialist projects across a diversity of fields relating to Australian literature, theatre, film, Indigenous writing and storytelling, life-writing, and criticism while maintaining a record of contemporary primary and secondary publications in the field.

This paper will consider the successes and challenges that AustLit has faced over its relatively long history (in digital era terms) with its aim of becoming the definitive virtual research environment and information resource in the fields noted above; not only for scholars but for students of all levels and the general public. We will present some of the innovative ways AustLit serves its user communities and discuss the challenges of moving from a closed, subscription-based resource to one that supports

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[1] Genoni, Merrick and Willson (2008)
[2] www.austlit.edu.au
[3] AustLit university partners are: UNSW, Wollongong, James Cook University, Sydney, Monash, Flinders, UWA, Deakin, Canberra.
[4] National Collaborative Research Infrastructure Scheme and the National eResearch Architecture Taskforce which funded the Aus-e-Lit project.

open access and community contributions, while maintaining AustLit's profile as a scholarly resource.

1. From database to research environment

When it was established in 2000, the AustLit database was derived from two sources of relatively limited scholarly data—a CD-ROM and a multi-volume national bibliography. This consisted mostly of bibliographical references and citations, with a limited subject index and biographical data. The extensibility of the web environment allowed AustLit's collaborators to consider creating a resource that would map the complete history of literary production in Australia and be a lasting and updateable resource for the discipline. While traditional scholarly products were produced during AustLit's first decade, such as the four volume *Bibliography of Australian Literature* (Arnold and Hay 2001-2008), the possibility of dispensing with the spatial and economic constraints of print in favour of the dynamic and limitless Web allowed AustLit to expand its scope and redefine the meaning of literature by encompassing a variety of creative and critical activities related to the way Australians have told and responded to stories.

Since 2002 AustLit has sought to integrate the data output of research projects undertaken to analyse cultural shifts or evolutions as represented in literary cultures, print history and related fields. Examples of such projects are abundant in the AustLit Research Community portal[5], a data management and publication structure that supports the study of Australian literary and story-making cultures by providing a web-based environment where segments of these cultures can be explored and presented as distinct topics within a larger knowledge framework. We encourage scholars to incorporate the resource into research projects that rely on biographical, bibliographical and other print and narrative culture data. Scholars are able to build datasets, annotate, analyse and present that data in a range of ways, including in the form of peer-reviewed articles outlining their findings. By using AustLit in this way they also contribute to an overarching goal of building a comprehensive database of information about Australian writers, writing and print culture.

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[5] See http://www.austlit.edu.au/ResearchCommunities

The incorporation into AustLit of such research-rich datasets such as Nicole Moore's record of the federal censorship of literary texts from 1900 to 1973, David Carter's work on American editions of Australian novels during the 20th century, Toni Johnson-Woods's voluminous record of pulp fiction, or Kim Wilkins's analysis of the occurrence of medieval themes in contemporary Australian fiction, builds a profound and unique record of a nation's creativity across its history while underpinning the scholarship that expands knowledge.

Compared to other national literatures, Australian literature in print has a relatively short history, beginning soon after the first settlement of Europeans in the late eighteenth century. The history of storytelling, however, extends back thousands of years through the oral and visual culture of Aboriginal and Torres Strait Islander peoples. For much of its history, Australian literature has been dominated by the voice of a 'White Australia', but during the 20th and 21st centuries an increasing number of immigrants from countries other than Britain and Western Europe, alongside growing opportunities for diversity within Australia, have introduced voices from Indigenous Australia, Asia, Africa, the Pacific region and many Eastern European countries, making Australia and its literary expressions distinctly multi-cultural. BlackWords[6], the Multicultural Writers project[7], and the Asian-Australian Children's Literature Publishing[8], are examples of AustLit's decision to incorporate knowledge and scholarship about a wide variety of cultural artefacts loosely coupled with the idea of the 'literary'.

This multiplicity of scholarship allows individual AustLit records to accrete data that reflects their position within a frame of reference that has relevance according to the perspective taken by a scholar or end user. Thus one AustLit 'agent' record (relating to a person or organisation), or one AustLit 'work' record can be viewed as 'belonging' to multiple subsets of data depending on its access point[9]. The application of attributes that align records with a specific focus such as cultural heritage or an affiliation with a literary movement or subject makes the data more useful on both the macro and micro

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[6] http://www.austlit.edu.au/BlackWords
[7] http://www.austlit.edu.au/specialistDatasets/MW
[8] http://www.austlit.edu.au/specialistDatasets/ChildLit/AsianAustChildLit
[9] An AustLit work record describes the complete history of a text as it is known, collecting publication details, descriptive and contextual information, all aspects of the life of a text.

level. In an individual AustLit record the layering of data provides a complicated view of the history of the artefact or the life of the agent; from a distant perspective the multiple metadata elements allow inferences to be drawn from the analysis of large sets of data.

Computational methodologies are now being deployed in many different fields of cultural research. Over the past decade the focus in literary studies has shifted away from nationalist foundations towards an interrogation of textual and material movements across trans-national networks with a related interest in the analysis of large datasets. AustLit has provided the foundational data for much of the work relating to Australian literary cultures. Robert Dixon, Chair of Australian Literature at the University of Sydney and AustLit collaborator, has stressed the need for researchers to conduct more 'boundary work' (Dixon 2004), that is, to pursue research questions that extend beyond those that examine single or small groups of texts to consider the production, distribution and reception of Australian literature within and outside Australia. Such analyses are exemplified by several recently published essays and by the increasing interest in such methods at national conferences[10]. A recent conference and subsequent publication, *Resourceful Reading: The New Empiricism, eResearch and Australian Literary Culture* (2009) collected reports on a number of databases such as AustLit, AusStage, the Australian Poetry Library and the planned Australian Reading Experience Database (AusRED), combining these reports with more traditional examinations of literary culture using computer and data-assisted methodologies. This conference and others like it demonstrate that the study of Australian literature has extended beyond traditional forms of critical interpretation usually reported in essays and monographs and is now engaged in a new period of enquiry where computer-assisted analyses of large datasets form part of the fabric of research.

AustLit has evolved from a print focused and early web-based structure to a dynamic research platform that harnesses Web 2.0 and semantic web applications. With its store of highly nuanced data and extensive full text primed for computer-assisted analysis, AustLit's collaborative research environment presents excellent opportunities

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[10] E.g. Bode (2008), Ensor (2010), Kilner (2009), Jan Zwar (2010).

for Australian literary studies to be expanded and for traditional single-author modes of research to be augmented with new scholarly outcomes. To that end, and with the aim of engaging with emerging issues around scholarly communication, a significant amount of work has recently gone into developing a research and publication environment for digitally aware scholarship.

2. Enhancing the Research Platform: Towards a Research Commons

In July 2011 the NeAT-funded Aus-e-Lit Project, a collaboration between AustLit and the UQ School of IT and Electrical Engineering's eResearch Lab, reached the end of the funded phase of a project designed to deliver a suite of research tools to AustLit[11]. The project met a dual need for undertaking research and development in digital humanities tools, which is a key aspect of the eResearch Lab's agenda, and AustLit's need to expand opportunities for scholars to work in a web-based research environment to independently collect, annotate and analyse information in research projects within AustLit's fields of interest.

Before the Aus-e-Lit project, researchers not working within a defined research community were unable to develop datasets or aggregate content within the AustLit portal. They could download, manipulate and analyse AustLit data in their own databases, but in general there was no way for them to feed their results back into AustLit. The Aus-e-Lit project design was motivated by the desire to enable researchers working with AustLit and other web-based content to share their research discoveries or interpretations outside of the usual scholarly article or conference paper. The key idea was to move beyond traditional forms of scholarly publication, and to facilitate the take up of digitally-based scholarly practice in which analysis and data are integral to the research outcome. We hoped that scholars would be provided with an environment to create digital publications or articulations that draw on, and incorporate, a range of web-based material to support an argument or to explore and analyse a topic, and if they wish, to submit that work to a process of peer review. While these larger aims remain in focus, certain institutional, practical and technical barriers remain that inhibit

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[11] The authors wish to acknowledge the work of the UQ eResearch Lab in the development of Aus-e-Lit tools and enabling their integration into AustLit, especially project leader, Professor Jane Hunter, and Senior Software Engineer, Anna Gerber.

what would be quite a radical change in the metrics and methods of scholarly communication.

The tools and services developed through the Aus-e-Lit Project now provide AustLit with an opportunity to nurture a new paradigm of scholarly communication. The development and implementation of the tools is only part of the answer; we must also encourage their creative use to develop digital objects in which the scholarship and intellectual integrity is recognised and rewarded. While the initial project design and developments focused on the (perceived) needs of university-based researchers, the application of the LORE software appears, so far, to more naturally serve other data management needs and teaching practice, with its use in teaching producing some very interesting outcomes, which may become the demonstrators for future research practice.

3. Report on integration of Aus-e-Lit tools

AustLit has linked to external resources for many years in the process of indexing bibliographical and biographical records. But, with web-based access to resources growing exponentially each year, digital tools that support discovery, collection, organisation, description and re-use are becoming more necessary in order to cope with the ongoing 'digital deluge'.

The tools that have been integrated into the AustLit interface include:

- a federated search that combines results from AustLit with a number of selected external databases;
- a full-text search facility that interrogates AustLit's growing corpus of creative and critical work ranging from the eighteenth century to the present day;
- data visualisation tools that enable large-scale analysis of AustLit data; and,
- the lightweight annotation and compound object authoring tool, LORE, which supports web-page annotation and internet resource collection via semantic web protocols.

These AustLit tools, developed through the Aus-e-Lit project, will support the establishment of a digital research commons for AustLit users by making discovery more efficient and by supporting collaborative scholarship in a networked environment. The remainder of this essay describes the development, testing and delivery of the Aus-

e-Lit tools. Although the Aus-e-Lit Project ended in July 2011, the integration and development of the tools is just beginning. Over the next year the tools and services will be used within a range of research and pedagogical projects to test their facility in real world situations. Further enhancements may be required when new uses are explored and other databases in the Australian humanities and creative arts sector test the efficacy of the software in different contexts.

4. Discovery and Distant Reading: The AustLit Federated Search and Data Visualisation

Researchers of Australian writers and their works draw their resources from a variety of sources in a variety of formats. Manuscript material provides information about the origins and growth of a work as it proceeded towards publication. Books, newspapers and magazines provide information about publication history, audiences and reception and photographs, video and audio can provide significant contextual information by recording information about settings, authorship, and adaptation. Much of this material, held in many archives across the country and overseas, is yet to be digitised, but as a result of a variety of initiatives at local, state and national levels, significant amounts have already been digitised, contributing to the so-called 'data deluge' and providing unprecedented access to the archives of many authors, publishers, newspapers and library collections. Researchers in the humanities will continue to visit libraries and archives well into the future, but, increasingly, much of the groundwork for their projects will be done from the desktop.

The Aus-e-Lit Project has aimed to assist with this movement towards digital scholarship by developing tools that contribute to the discovery of relevant resources. The Federated Search (Figure 1) provides a snapshot of resources available at a number of selected external databases, delivering results that augment the significant bibliographical and biographical information of a standard AustLit search. The Federated Search currently interrogates Picture Australia, People Australia, AusStage, MURA the AIATSIS catalogue, AustLit Full-text, Google Books, the Internet Archive and Wikipedia. Results from this search are certainly not definitive and researchers will find relevant resources through other means, but as an efficient survey of some of the most relevant databases, the Federated Search provides a useful first step in any

enquiry. Many databases holding relevant material have yet to support third-party searching of their holdings, meaning that the scope and power of the AustLit Federated Search is not as developed as first planned, but measures have been put in place to add appropriate targets as they become available. In this first deployment, the Federated Search has been warmly received by AustLit users and is now set as the default in conjunction with the general AustLit Search.

Figure 1: Federated Search

In collaboration with various partners, AustLit provides a growing amount of full-text that is included in the Federated Search or is accessible through a separate search interface. The corpus contains out-of-copyright poetry, fiction and plays from the eighteenth century to the early twentieth century and several collections of copyrighted criticism. Keyword searching is supported across the entire corpus, enabling efficient discovery and recording of word usage and themes across time. The full-text can also be analysed by using the growing number of text analysis tools freely available on the internet, such as Voyeur Tools, Tapor and Many Eyes. Despite its long history, computer-assisted text analysis is not practised widely. Nevertheless, until such analysis emerges on a larger scale, AustLit provides a stable resource that supports a wide range of computer-assisted engagements with text. Researchers will have the

potential to share the outcomes supported by the third-party text-analysis portals mentioned above and to provide a suitable target for collaborative interpretation using the Aus-e-Lit tools discussed below.
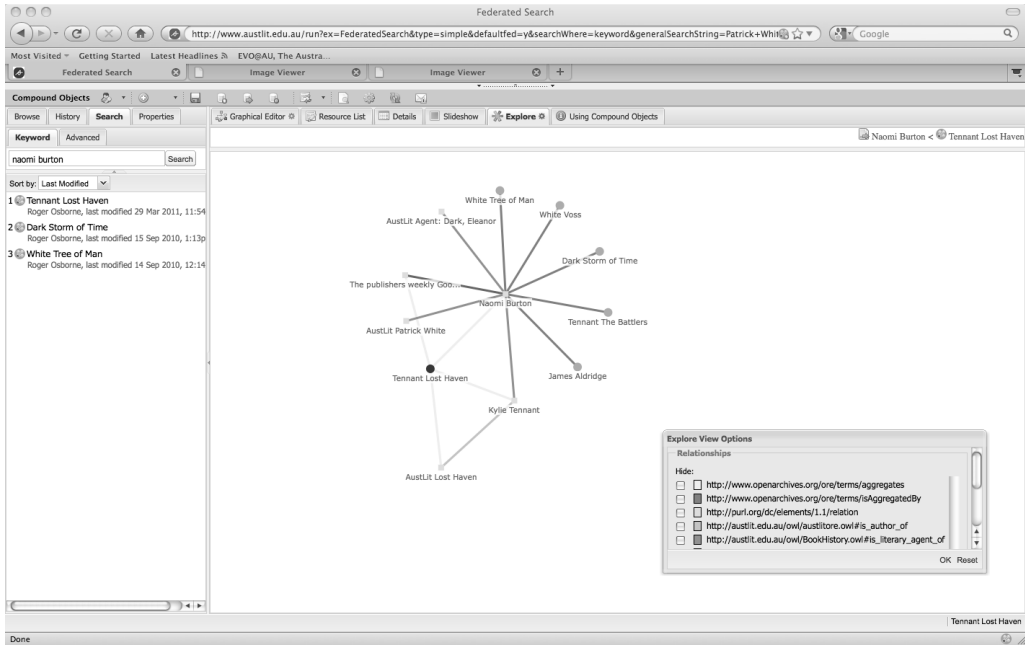

Figure 2: Network Visualisation

For more than ten years, AustLit has accumulated bibliographical and biographical data on Australian writers and their works; has undertaken foundational research on theatre history and television and film adaptations and productions; has collected information on Indigenous Australian storytelling, oral histories and dreaming stories; has indexed contemporary and retrospective magazine and newspaper content, linking to online data as often as possible; and, among other data generation activities, has worked with the NLA's PANDORA archive of websites to ensure lasting links to born digital content. With new information being indexed every day, the data in AustLit will always be provisional, but it has reached a capacity where data visualisation can be supported, enabling new types of enquiries to be pursued. With the delivery of a number of data visualisation tools, AustLit now has the capacity to support the enquiry and visualisation of large-scale trends through graphical reports and other visualisations such as cultural and professional networks (Figure 2). The many hyperlinks between

agents in the AustLit database enable cultural and literary relationships to be inferred and displayed visually. Furthermore, geo-spatial data indexed in AustLit supports the mapping of subject terms, places of composition and setting, while new timeline views enable efficient browsing of large search results (Figure 3). As the AustLit Research Communities have shown, the production and analysis of AustLit data can proceed effectively side-by-side. With open-source tools such as Cytoscape available to visualise cultural networks, the time is approaching when AustLit data will contribute to new scholarship and revisions of the cultural history of Australia through innovative methods of data visualisation.
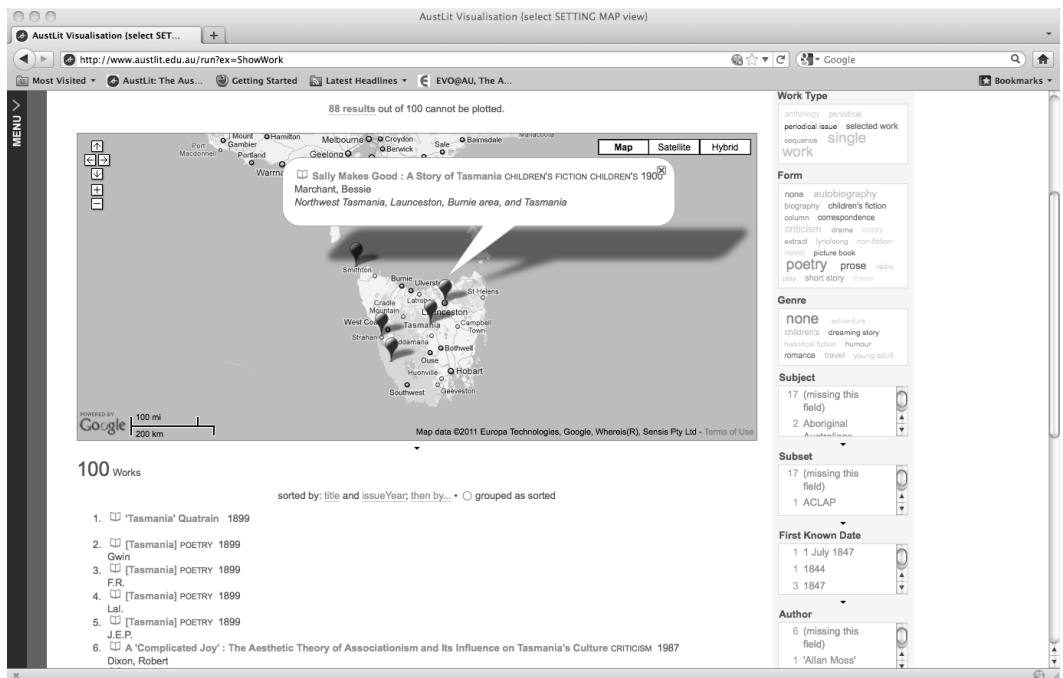

Figure 3: Mapping of AustLit Data

5. Linked Data and the Semantic Web

For more than two decades, the internet has enabled researchers to access a wide variety of digitised material provided by libraries and other institutions across the world. Finding these resources has become easier and more efficient with the development of browser technology and the algorithms that power various search engines. But even with such developments, discovery is still hampered by the computer's inability to

understand the contextual information of the documents that it retrieves for display in the researcher's monitor. The development of Web 2.0 technology has enabled anyone with a computer and access to the internet to create web-pages and blogs or to sign up to any one of a multitude of social networking services. The tagging of information and the links between resources and identities that form the so-called semantic web promise to help computers better understand the meaning of the documents discovered, thereby providing suitably described individuals with the information that best matches their needs and desires. Informed by the protocols of the Open Archives Initiative, particularly those protocols relating to 'Object Reuse and Exchange' (OAI-ORE)[12], the Aus-e-Lit Project has developed the lightweight authoring tool, LORE (Literature Object Reuse and Exchange) (Gerber and Hunter 2009), to enable researchers in literary studies and broader humanities disciplines to more efficiently collect, organise, describe and share the web-based information that matters most to their present and emerging research questions. Within a Digital Research Commons for AustLit Research Communities and their collaborators, a semantic network of information can accumulate through collaborative collection, organisation, description and sharing, ultimately evolving into a publishing platform for new forms of digital communication.

6. Compound Objects

Compound objects, simply defined, are aggregations of web resources that are stored as RDF[13] (Resource Description Framework) for efficient discovery and re-use. The OAI-ORE standards for the description and exchange of aggregated web resources are designed to support interoperability between platforms, thereby enabling these aggregations to be exported into a variety of formats. Such aggregations are becoming increasingly useful in the wake of the 'digital deluge' and the changing nature of scholarship and scholarly communication. With space in digital repositories becoming less of an issue, scholarship is possible in the form of 'enhanced publications' where an essay or monograph is accompanied by an aggregation of the researchers data, deposited in an appropriate institutional or national repository. LORE promises to

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[12] http://www.openarchives.org/ore/
[13] http://www.w3.org/RDF/

extend the possibilities of scholarly and pedagogical communication by supporting the aggregation of resources significant to Australian studies.

Figure 4: LORE User Interface

Figure 5: LORE Property Fields

As shown in Figure 4, with the LORE user-interface opened, resources can be collected in the 'compound object' panel by clicking on the LORE icon in the browser address bar. Whether these are discovered through AustLit's Federated Search, or any

other search engine, they can be efficiently collected in a compound object. Each resource, and a collection as a whole, can be described by using the various property fields (Figure 5). These fields employ Dublin Core metadata terms[14] and an editing interface that supports minimal formatting. The main graphical editor is accompanied by an alternative editing interface in the 'Resource List' and several optional views, including a Slideshow that can be used for presentations. The RDF/XML can be saved and exported in several formats, including Word files and an online exhibition format that AustLit is using to support learning and research trails. The RDF/XML is highly interoperable and can also be exported to other RDF-compliant tools for re-use in other contexts. Users can choose to keep their work private or to work in an open scholarship environment where collections can be viewed, re-used and extended by others. Intellectual property is secured by author attribution, and time and date stamping occur on every act of creation or revision. User-generated data will accumulate alongside the indexing being conducted by AustLit and associated Research Communities. This data will provide an extra source for information that is easily discoverable and extremely relevant because of the active engagement of users as they collect, organise, describe and share internet resources that are important to current and emerging research questions.

Several rounds of testing, regular demonstrations and unsolicited feedback indicated that a publication format was one of the most desirable outcomes for researchers. To address this desire, LORE has been configured to support the publication of 'Learning and Research Trails', providing users with the opportunity to turn their compound objects into a publishable outcome (Figure 6). Collecting and organising resources, combined with an appropriate narrative inserted in the 'abstract' fields, enables efficient publication when tagged 'AustLit trail'. The Children's Literature Digital Resource (CLDR)[15] has created a series of trails to raise awareness of their collection of full-text and to create suitable resources for use in the classroom. Similar trails are being designed in consultation with members of the Association for the Study of Australian Literature (ASAL)[16], who plan to create aggregated resources that help to bridge the gap between secondary and tertiary education sectors. These and

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[14] http://www.dublincore.org/documents/dcmi-terms/
[15] http://www.austlit.edu.au/specialistDatasets/ChildLit/CLDR
[16] http://asaliterature.com/

other trails produced by AustLit team members are expected to generate interest in LORE as a publication tool, leading to a further series of themed trails produced in consultation with the BlackWords[17] and Speculative Fiction[18] Research Communities.

Figure 6: AustLit Learning and Research Trail

7. Annotations

LORE also enables notes and queries to be attached to web-based material with an annotation tool (Figure 7). With access to significant amounts of full-text in AustLit's corpus and in other collections such as the Australian Digital Collections[19], the possibilities for collaborative interpretation are significantly extended. Increasing amounts of digitised manuscripts and other archival material such as author's notebooks also provide the opportunity for researchers to conduct a significant amount of work at the desktop, making research more efficient and contributing to the preservation of archival material by reducing handling. In addition to the potential for research, open

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[17] http://www.austlit.edu.au/specialistDatasets/BlackWords
[18] http://www.austlit.edu.au/specialistDatasets/PopFiction/SpecUlations
[19] http://adc.library.usyd.edu.au/index.jsp?page=home&database=ozlit

scholarship such as this provides many opportunities for training in manuscript studies and mentorship beyond institutional and national boundaries.

Figure 7: Compound Objects and Annotations

The collection and description of resources in compound objects can work in conjunction with the annotation of individual pages within each resource, further accumulating information and extending the bibliographical and biographical description of AustLit to include contextual information that is beyond the scope of AustLit indexers. As with compound objects, researchers can choose to make their annotations private or work in an open scholarship environment. Whichever option is chosen, there is potential for LORE to support enhanced publications by providing an environment where research is initiated, developed and concluded, ultimately leaving a digital record of the research process for others to consult, extend or challenge[20].

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[20] The UQ eResearch Lab is also extending thinking about these issues with continued development of LORE through involvement with the Mellon-funded Open Annotations Collaboration. See: http://www.openannotation.org/theOpenAnnotationCollaboration.html

8. Conclusion One: Towards a Digital Research Commons

AustLit has evolved from a card index through primitive databases, a CD-ROM, online database and into its current form as a wide-ranging, heavily contextualised information and research environment database with tools and services that enable users to extend AustLit data by linking relevant resources with semantic web technology. The adoption of digital methods of enquiry in the humanities has been relatively slow, and the dominance of single-authored studies in print formats continues to act as a measure of scholarly value. Such cultural barriers might inhibit the wide-spread adoption of innovative digital tools such as those developed by the Aus-e-Lit Project, but the continuation of the 'digital deluge' and the ongoing development of web-based technology for research and communication will inevitably have an increasing impact on research practices in the humanities. By enabling the greater engagement of users in order to maintain the rates of indexing that users have come to expect, and by delivering tools and services such as the Federated Search, empirical reporting services, full-text searching and compound object authoring and annotation services, AustLit has taken a significant step towards a Digital Research Commons. As more users register to collect, organise, describe and share the information that is important to their research, the AustLit Digital Research Commons will emerge as a significant destination for researchers involved in the study of Australian writers and their works.

9. Conclusion Two: from Research Commons to Community Information Commons

The international drive to make the results of government funded research openly available to the public is also impacting upon AustLit, and is creating a variety of new challenges and opportunities. A recent decision to move the service from the current pay-for-access model available to relatively few users through library or organisation-based annual subscriptions, to an open access and open contributions model incorporating (we hope) content produced by a network of volunteers, means the services and tools developed through the Aus-e-Lit project will be available to a wider and more diverse audience.

Discovery of our content through search engines is currently limited to the public web pages and those author or organisational history records, which include a biographical summary of greater than 100 characters. Thus most of our contact with non-subscribers comes through searches issued via Google on the names of people. We are regularly contacted by family historians, authors checking on their web profile, people wishing to contact authors for speaking engagements or as fans, and old friends who have lost contact. Other contact comes through the research community pages, which are also available to web-crawlers. However, the vast majority of AustLit content made up of records relating to the indexed works is currently invisible on the wider web.

The popularity of searches on book titles has recently been demonstrated through the analysis of search activity on the Teaching Aust. Lit. Resource using Google Analytics. The Teaching Aust. Lit. Resource[21] is an AustLit affiliated project, initially funded by the Australian Learning and Teaching Council (ALTC), that tracks the occurrence of Australian texts in university curricula and, as such, is text focused. It is an open access resource that allows information seekers to access AustLit data on works and authors through the TAL resource. Almost 80 of the 100 most frequent browser-issued search terms which bring users to TAL are titles of literary works. This suggests that there will be an exponential increase of traffic to AustLit once the subscription barrier is lifted.

The demands that open access will place on the AustLit system and the fact that it is, structurally, a legacy system built in the early days of the web means that the current AustLit interface is unsuited to the new operational plans the AustLit consortium has for open scholarship and the integration of user generated content. During 2011 and 2012 the system is going through a major overhaul and redesign to facilitate greater participation while maintaining (or improving) standards of data production, data manipulation and integration of the Aus-e-Lit project outcomes.

As AustLit joins the throng of websites seeking user contributions to expand and maintain value of the resource we will need to manage the transition with a great deal of care. Reputation measures are vital in scholarly resources and building a reliance on unaffiliated contributors carries with it risks to reputation, or at least perceptions of

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[21] http://teaching.austlit.edu.au

diminishing trustworthiness. Wikipedia is regularly raised as a negative example of crowd-sourced, knowledge-based content despite a number of demonstrations of equal and higher levels of accuracy than the more 'authoritative' sources[22]. Reputation is built slowly. Jeopardising this reputation through the perception of the unconstrained incorporation of crowd-sourced content would potentially undermine AustLit's standing. The incorporation of moderation, stand-off annotation, the building of networks of trusted volunteers, the use of task-driven collaborations and leader boards for voluntary contributions are some of the measures being examined in the AustLit restructure. Building a critical mass of volunteer contributors will be a particularly challenging aspect of the restructure that will follow the technical rebuild.

A commons based approach to the development of resources such as AustLit requires a different way of operating to that employed when producing a resource with a small number of contributors and a limited audience. Recognising the needs of a diverse user and contributor community will require systematic analyses of the different uses to which AustLit might be put in the future. Making it possible for AustLit data to be created and re-used in a variety of ways will have to be central to thinking about the role of AustLit in research, teaching and information delivery during the next decade. Ensuring that the needs of scholars, teachers, students and the wider community are all met is a challenge that, if successful, could enable AustLit to emerge as an important Digital Research Commons and, through greater levels of collaboration with other humanities and creative arts information resources, form an important part of the Australian knowledge landscape.

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[22] A number of studies over the past five years have demonstrated the general dependability of Wikipedia entries. See for example: Giles (2007) or Grathwohl (2011)

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