Sydney's Past – History's Future:
The Dictionary of Sydney

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The Dictionary of Sydney is a groundbreaking, multimedia city encyclopedia that presents the history of metropolitan Sydney in a digital format. The historical model and digital repository that underlie the Dictionary of Sydney were developed through an Australian Research Council (ARC) Linkage Grant, which saw the collaboration of the University of Sydney, the University of Technology, Sydney, the Council of the City of Sydney, the State Library of NSW and State Records NSW.

The basic idea of the Dictionary of Sydney is that it is one repository, with many possible deployments. This permanent electronic repository is underpinned by a historical model for defining and connecting information, text and multimedia, which will hold the resources of the Dictionary into the future, and continue

to maintain and present them even as technology changes. The Dictionary of Sydney Trust, which manages the Dictionary, aims to deliver these historical resources for free, encouraging knowledge, research, education and entertainment.

TELLING THE STORIES OF THE CITY

Seefeldt and Thomas make the distinction between three genres of digital history:

1. digitisation projects; such as the National Library of Australia's digitisation of newspapers
2. presentation layers of historical knowledge; a form of digital publication such as online exhibitions or e-books
3. new-model scholarship; where digital technologies are used to visualise history in new ways, develop new research questions and undertake historical analysis in new ways.[1]

The Dictionary of Sydney is a blend of the second and third of these types of digital history; an innovative mix of history and technology that connects people, place and time, and provides a unifying framework for telling the diverse stories of Sydney's history and culture, with multiple authors and contested interpretations. The first presentation of the Dictionary of Sydney, found at *www.dictionaryofsydney.org*, is a fairly traditional style of website: a digital reference publication with encyclopaedic ambitions. But the repository is such that information can be manipulated and presented in different ways. This means that there could be a smart-phone version, a journal, options for user-selected print-on-demand books, exhibitions, trails and tours, mashed up and semantic interpretations of the city's history. In other words, through the historical model, the project can utilise digital technologies to visualise history and make new and exciting connections in Sydney's history.

   The Dictionary of Sydney is not the first online city encyclopedia, but it is unlike any other digital encyclopedia currently available online. Many predecessors have been put online after their publication in print, like the *Encyclopedia of Chicago*,[2] or the *Melbourne Encyclopedia*.[3] Others are highly curated and planned in advance,

following a published model, such as *Te Ara, the Encyclopedia of New Zealand*.[4]

The Dictionary of Sydney is a born-digital urban public history project, conceived as a freely available resource presenting scholarship on Sydney's history. The content of the Dictionary is limited in geographical space but not time. So it covers the area of the Sydney basin and the Blue Mountains (Greater Sydney) and presents Sydney's history from first human habitation to the present. The underlying historical model defines and classifies the component parts of the city, and connects them with resources such as text, images, maps and multimedia. This data structure is at the heart of the Dictionary of Sydney and it will ultimately drive the new-model scholarship of the Dictionary. Individual items (entities) are divided into eight categories – artefacts, buildings, events, natural features, organisations, people, places and structures. Each can be defined in time (with dates) and place (through geo-referencing and placement on Google Maps), and connected with others through roles, functions, associations and/or relationships. Every entity can be connected to any number of other entities and also to resources such as images, maps, sound, film, entries or essays. Entries and essays cover content ranging from individual entities, such as an individual person or building, through larger topics such as Opera or Trams, to overarching historical themes, such as Culture and Customs, Health and Welfare, or Religion. The project has also developed a subject thesaurus focussing on urban history, which when fully implemented will provide a way to search by subject throughout the Dictionary.

Everything in the Dictionary is placed in context. In the website, contextual 'paratext' provides a short description of every linked item, when the mouse is rolled over the link. These descriptions give users information about the link before they click on it, allowing them to choose their path through the Dictionary.

Every time an image is used to illustrate an entry in the Dictionary, it has a context-specific caption that indicates why it is relevant to this paragraph of this entry. Images can thus be meaningfully applied to more than one place or article, illustrating different historical ideas, subjects or content. As entities (individual items) are mentioned in text, they are linked with other mentions of the same entity, building up layers of connection that are sometimes surprising, and may be unknown to the authors of each text.

Content production for the Dictionary of Sydney is a collaborative cross-disciplinary volunteer venture, drawing upon historians, archaeologists, heritage specialists and historical societies, experts, enthusiasts and amateurs. Essays and entries are commissioned by the Dictionary of Sydney Trust, but unsolicited content, feedback and suggestions are also encouraged, and both kinds of entries are flowing in. People are clamouring to contribute to the Dictionary. All content passes through an editorial and curation process and is then connected wherever possible to existing material. Thus in terms of content generation, the Dictionary of Sydney is safely (some may say conservatively) embracing a shared authority process, rather than surging forward with the radical trust of web 2.0 engagement, as embraced by open, user-edited websites such as Wikipedia.

ESTABLISHING AUTHORITY

The Dictionary draws upon many traditional scholarship standards and places them in the digital environment. This helps to establish the authoritative status of the content, while also overcoming the suspicions and concerns some academics and professionals have with digital history.[5] Many websites are anonymous; this is particularly true of those attempting encyclopaedic coverage, including Wikipedia on one end and *Te Ara* on the other end of the authority spectrum. In comparison, all entries in the Dictionary of Sydney are attributed to authors, whose expertise, experience and knowledge is indicated in their contributor records. Entries are also dated. Small modifications might be made to correct dramatic errors, but the entry as a piece remains persistent, along with its endnotes and references. This provides a stamp of authority and veracity that is sometimes lacking in the digital environment.

The Dictionary deliberately acknowledges its authors and cultivates multiple voices. It reflects the commitment of the project to public history with contributions from all parts of our community. Some of our pieces are very scholarly, others more conversational in tone, and others have a more literary or arty approach to a subject.[6] Although we have editorial standards, the authorial voice may shine through – a very different editorial approach to, say, that of the Australian Dictionary of Biography. The Dictionary of Sydney is also interested in presenting artistic and creative multimedia, and

contributions are encouraged from contemporary photographers and artists.[7]

Publishing an unfinished and never-ending digital history does have its challenges. Although subjects and topics were defined, a thesaurus developed and entries commissioned, when it came to the content for the first deployment we had to embrace the randomness of the entries that had arrived in time to be edited for the Dictionary. Unlike hard copy histories, there is no definitive overview, or careful balance in the range of entries. There is no introduction or foreword to guide readers' perceptions of the content. But the upside is that there are multiple publication dates. We add new content every 3-4 months and so we can more readily reflect and embrace new scholarship, historiographical developments, and new subject areas than analog forms of historical publication. The possibility is there for opening discussions and dialog on historical topics and issues.

GATHERING CONTENT

The majority of contributors to the Dictionary of Sydney are volunteers and this too can be a challenge. We are grateful for their commitment to their scholarship and the project, and aware of their other commitments and obligations, so we cannot be too precious or demanding about submission dates. Unlike an edited collection, publication of the whole does not depend on getting the last article in. This has added somewhat to the randomness of the content. Does this matter? How comprehensive will the Dictionary of Sydney ever be? At first the Trust was highly concerned that we have a representative sample of types, topics and styles of content in the Dictionary before we went live with our first product. But now we have embraced this slightly anarchic approach. As Stephen Ramsay has suggested, this is 'what the world looks like when digital humanities becomes the humanities'.[8]

So how much content does the Dictionary of Sydney have? Table 6.1 quantifies the different types of content and the contextual information appended to each type of content. There are other tangible benefits of digital history. There are fewer restrictions on word length (within reason) so detailed pieces can be curated and published for niche audiences. Similarly, there is no limit on illustrations and they can be seen in glorious colour.[9] This is of course very different to physical publications, where many publishers

require authors to supply a publication subsidy to cover extensive illustration. Illustrations in the Dictionary can also be delivered in high resolution, with zoomable elements.[10]

Table 6.1: Content Type and Contextual data appended to content

Content type	November 2009 (go-live date)	August 2010 (2nd rebuild)	November 2010 (3rd rebuild)
Number of entries (written by volunteer authors)	470	504	539
Entries word count (written by volunteer authors)	600,000	664,486	739,342
Number of entities (created by DoS staff)	6200	6587	7095
Number of entities with descriptive annotations and factoids	<400	2186	2972
Descriptive annotations word count (written by DoS staff)	<10,000	32,218	45,070
Images and multimedia (researched by DoS staff)	1050	1306	1545
Images with content specific captions (written by DoS staff)	unknown	917	1010
Total caption word count (written by DoS staff)	unknown	25,411	28,806
Hypertext links (made by DoS staff)	<10,000	13,810	14,869

Being an online project means we make the most of audio-visual elements. Oral histories and archival film footage can be included. The only limitations are copyright and cost. The Dictionary includes oral history from the City of Sydney's extensive collection.[11] Film is also included, although the challenges of obtaining footage without a budget are quite steep. Examples include footage of the removal of the GPO clock tower in 1942[12] and the last tram to travel down Anzac

Parade in 1961.[13] Digital technologies allow for time-spatial mapping. Historical maps can be geo-referenced and stretched over contemporary maps, made transparent allowing comparison with the current street grid, and zoomed for details.[14] Geographical information can be used to chart places and buildings on maps. Because the items are also placed in time, moving the timeline shows how the places appear and disappear in the development over time of Sydney's urban environment.[15]

An extraordinary amount of history has already been published by the Dictionary of Sydney and more is in preparation. While those of us closely involved in the project are uncomfortably aware of the gaps and randomness of what is there so far, we share a concern that many users – particularly those interested in Sydney's history in a general sense – may find the Dictionary of Sydney, with its digital format, overwhelming. Work continues to refine the browse and keyword search functions to make sure that results are tailored and focussed to allow readers to find what they want quickly and directly.

Is the Dictionary's size and complexity a problem? In some ways we want people to get lost in the Dictionary; that too can be part of the modern city experience. But we have prepared navigational tools to help browsers and searchers alike. A trail of 'breadcrumbs' across the top of the page means readers can retrace their steps and see how they ended up moving from a history of transport to the biographical entry on the noted composer and musician Isaac Nathan.[16] Each entity page indicates where this item has been 'mentioned' in entries, allowing an effective cross-referencing that connects in informative and unexpected ways. The ability to browse each type of entity has been provided through a series of browse pages, and the default setting for these highlights those items with rich content, rather than small snippets of information. Readers can browse by entities, contributors or resources. And all of our URLs (website addresses) are persistent links that are intuitively named to enhance memorability and encourage linking and bookmarking.[17]

The Trust is committed to the ambitious but achievable goal of doubling the size of the Dictionary in five years. With an ever-growing digital history that has no physical representation, it can be hard to convey to the public how it is actually growing and what is new in the Dictionary. We have no new volume to launch and put on

the shelves. Publicising the new material and showing off what has been achieved needs to be done through newsletters, marketing, and social media such as Facebook or Twitter.

FINDING AN AUDIENCE

A key issue for any publication, but particularly digital history, is the matter of audience. Allowing free access on the web makes the whole world an audience, theoretically. Nevertheless, the writing in the Dictionary of Sydney is pitched at the educated general user or the professional researcher. User patterns confirm educational institutions – schools, universities – and people who use computers at work are probably our main users, with a distinct rhythm that peaks on Mondays and Tuesdays and tapers off across the week, so that Sunday is most definitely a day of rest. We have not taken steps to lower the reading age required for our content, which regularly measures at Year 10 (end of junior high school) or above.

The website went live in November 2009 and thus far, with minimal publicity, usage levels have been exceptionally pleasing. Google Analytics figures indicate that from go-live on 20 November 2009 to 20 November 2010, the Dictionary of Sydney has received 117,238 unique visitors. Monthly figures of unique visitors are now trending up over 13,000 and our first marketing exercise of an advertisement in the 2010 History Week calendar – a state-wide celebration of history in New South Wales organised by the History Council of NSW – saw our unique visitors jump by 25 per cent.

The vast majority of our visitors are from Australia, but we have received visits from most countries in the world, and we get significant regular traffic from all English-speaking countries. Drilling down through the data, it's possible to see that we must have been mentioned by a lecturer at the University of North Carolina Chapel Hill in September 2010 sometime, and that those students spent significant amounts of time on the site over a period of days. This sort of audience information is new for historical writing and research, and will no doubt become more important as part of the measurement of and credit for influence and reach of academic research. It certainly has great potential to help guide the Dictionary's strategic planning. Data from our first year indicates that local history is extremely popular with suburb entries for La Perouse and Surry Hills topping the pageview list. But the histories of communities are

also frequently visited, with Vietnamese and Croatians gaining thousands of views.

Most visits do not start at the homepage. Despite all the attention paid to the home page navigation, most people – 85 per cent – first enter the Dictionary of Sydney at an entry or entity page, direct from Google, although the most common search term is 'Dictionary of Sydney', this is still only around three per cent of our traffic from Google.

There are two implications from this data. The common use of the search term 'Dictionary of Sydney' suggests that people have indeed heard of the project but haven't memorised the web address or bookmarked the site. These users could be browsers or they could be searchers. The second, more radical implication for history is that people are tending not to bookmark sites, and thus don't enter from the homepage – the equivalent of a title page, contents and introduction in a book. Jumping straight into a Dictionary of Sydney entry from Google is how many people first encounter this public history project. Discovery is through a search term, rather than browsing. Their experience of the Dictionary will then be based on whether the content meets their expectations of authority, veracity, and value. If the interconnectivity is rich, then the searcher's curiosity may be piqued and they turn from searcher to browser – off chasing the serendipity of the city. Suggesting that this might be happening, our browse pages are among our most heavily used, indicating that many readers are setting off into our content more generally, after arriving in search of something specific. The challenge of interpreting the huge volume of usage data that is available is one we are still coming to grips with.

SHAPING AND CHANGING THE PRACTICE OF PUBLIC HISTORY

Stephen Ramsay argues that the digital humanities are dramatically changing the methodology of our consumption of information. The proliferation of hypertext and interactivity encourages 'browsing' or what he calls 'screwing around'. Of course, the digital humanities allow for more powerful searching and research methods. But, Ramsay argues, 'once you have programmatic access to the content of the library, screwing around suddenly become a far more illuminating and useful activity'.[18] Keyword searches mean jumping into the middle of a historical narrative is easy enough; so is jumping

back out or across to something else. Hypertext connectivity means people create and follow their own paths and narratives through the Dictionary. This is one of the major defining elements of a digital history. The Dictionary is forging a new direction in the production of public history in Australia through its historical model connecting time and space. What does this mean for how we write (public) history?

When the World Wide Web became mainstream over 15 years ago, there was broad academic concern about the assault on traditional historical narrative. Web designers led the charge in the battle for succinctness.[19] There was no guarantee that an article would be read from start to finish. Technological constraints of screen size and text legibility suggested that readers' tolerance of long narratives to be read on-screen was low. Consequently online writing, it was said, should take a much more journalistic approach than the considered historical narrative favoured by most historians.

There is still an element of truth in this assessment. There is a knack to writing online and the Dictionary of Sydney Trust has produced writer's guides, like any publisher, to encourage certain standards and approaches. The Dictionary of Sydney has also adopted a chapter style of presentation so that long articles can be broken up into smaller chunks, without scrolling interminably down the screen. This enables us to include articles of 5000 words or more, without losing screen appeal. However, we are now in the second decade of the web and people's exposure to digital technology means audience tolerance of screen interfaces is much higher than first anticipated. New applications such as Instapaper,[20] which allow readers to save long web pages to read later, perhaps offline, or on another device, mean that more reading styles can be accommodated. User-generated PDF or print-on-demand solutions may also influence readership.

Computers are integral to business and education; people interact with and use them every day. And as they have become part of everyday life, people are prepared to use them in different ways. Five years ago technology and audience tolerance levels meant that only a couple of minutes of audio-visual material could be displayed. With the advent of television being delivered through the web and personal DVD players, people's interest in audio-visual content is much higher. A new range of user-friendly mobile and reading

devices, such as the iPad and similar hardware, will further extend the reach of projects such as the Dictionary.

We are now a highly visual culture. And the presentation of digital history is forcing historians to be much more visually fluent in their historical analysis and writing. There is an expectation that digital history will be richly illustrated and this will gradually lead historians to include visual cultures as a regular part of their source material. Nevertheless, it is still a big challenge for the Trust to get some historians to include images and audio-visual material in their contributions, or even to give our researchers leads to find the best sources.

The Dictionary of Sydney's historical model, with its strong emphasis upon place, geo-referencing and time, is also forcing historians to be more specific about where and when things happened. Many of our contributors, particularly of larger thematic pieces, have often found it challenging to drag the thematic back down to the particular. Noting addresses and consulting maps needs to become a basic part of research.

Because all entries are authored and dated, it is possible to have multiple entries on the same subject, providing different perspectives, and allowing new scholarship or contested interpretations to be presented. Adjacent disciplines, such as archaeology, or sociology can also be included. Hyde Park Barracks, a historic building in Sydney, with a highly significant archaeology, is included in the Dictionary with two entries,[21] one on the building's history,[22] one on the archaeological finds made there.[23] Over time the layering of articles will document the changing interpretations of a subject and, in the very long term as the layers increase, document the historiography of the subject.

The Dictionary of Sydney is a public history project based on shared authority, drawing upon experts both inside and outside the academy, and presenting history to an educated general audience. In terms of public engagement, it is, at this stage, conservative. It is still a curated, peer-edited site; it is not a wiki. Content is commissioned and sought by the editor, but also influenced by user requests and offers to write from authors. So it is (mildly) anarchic in its content production. Contributors to the Dictionary of Sydney retain copyright of their material and license it to the Trust for use in the digital repository. However, contributors are encouraged to sign a

Creative Commons license, which is a new way of sharing research that has been developed for the digital age. With a share and share-alike license, people can utilise research, mash it up and present it in a different way for non-profit purposes. The aim of the Creative Commons license is to encourage collaboration. And the Dictionary of Sydney is very supportive of this innovative approach to copyright and licensing as it is a productive and responsive form of license for public history.

Under the shared authority model, the Dictionary of Sydney is trying to encourage as many contributors and writers as possible, drawn from many different historical enterprises and professions. The Dictionary of Sydney provides an accessible and encouraging avenue for graduate students and 'beginning' historians to get their work peer reviewed, edited and published. Digital histories such as this one can also provide a platform for grey literature, such as reports and assessments in the heritage industry, to find another more accessible form of publication, where studies of specific sites can be placed within a wider context. The Dictionary of Sydney is opening up avenues for publication and fostering public history. Already, entries that were written for the Dictionary are appearing on council and historical society websites, as our licensing system enables authors to reuse their content.

The Dictionary of Sydney Trust has also developed a strategy to allow academic historians to contribute to this public history project and still get their academic publishing points. It is unfortunate that the stringent and arcane academic publishing regime linked to funding and hierarchy has yet to satisfactorily respond to the opportunities of the digital humanities. To combat this, an online peer-reviewed journal, the *Sydney Journal*,[24] was established through the open journal system at the University of Technology, Sydney to allow key thematic essays to be published in a manner that will be recognised by Australian universities. It seems probable that connections between digital history projects and peer-reviewed e-journals will become more common in the future to foster interplay and collaboration between public history and academic scholarship.

SECURING FUNDING

The greatest challenge of all is funding. The initial five-year research project was funded through an ARC Linkage Grant. ARC grants are still geared towards projects that finish, neatly or otherwise, and do

not provide for the ongoing costs merely of keeping information online, much less adding to it. This is an issue for all digital humanities projects that are grant-funded, and will need to be addressed by the research community more generally as digital projects proliferate.

The Dictionary, being without an institutional home, has taken a self-reliant approach. To ensure the sustainability of the project, a not-for-profit trust – the Dictionary of Sydney Trust – was set up in 2006, giving the Dictionary an independent body to carry it forward, outside a university or institutional base. The Dictionary of Sydney Trust, governed by a board of trustees, is defined as a cultural organisation with charitable status, so that philanthropic funds and donations can be solicited with the corresponding reward of tax deductions.

It is anticipated that over time the Dictionary of Sydney Trust's funding sources will change. At the moment there is a high reliance upon grant funding, and technical developments are driven by ARC funding. In 2010 the Trust successfully secured a one-year sponsorship from the Council of the City of Sydney, which is allowing the Trust to lay the foundations of the organisation and build a strong platform from which to publicise and grow the Dictionary. Part of that sponsorship is dedicated to developing business, fundraising and marketing strategies and programs that will secure ongoing operational funding from a range of sources.

Like all arts and cultural organisations, we cannot rely solely on one funding body. The Dictionary of Sydney Trust encourages the collaboration and financial support of all local councils in Greater Sydney, as well as Sydney's cultural, historical and heritage institutions and universities.

GENERATING RESEARCH QUESTIONS

In important ways we have discovered that the Dictionary we have built is more like an exhibition or a library than it is like a book. The roles of the designers, editors and curators of such a history become a major part of shaping the overall product, as individual authors are not the ones who make the connections between their work and that of others. Cross-references and connections in time and space emerge that are unknown to all or any of the authors involved. As the project grows, its shape and the connections between different parts of it will

not be under the control of any one author or editor, but shaped by the policies and processes in place. As with any major curated project, the research, checking, familiarity with sources and sheer historical intuition that goes into this cross-referencing is part of the value that the Dictionary team, both paid and volunteer, adds to the material we include.

Encyclopedias have always presented disparate material, with cross references. Historians have often done this too, but it seems new to have the cross references present whether or not the individual historians know about them. In the Dictionary of Sydney, the connections may be made by the research and editorial staff, the images, the maps, and any entity mentioned in the text. Each text becomes suspended in a web of connections, and none of them is out of bounds. Some may raise questions about the accuracy of the text, its sources or its interpretation. Other connections provide insight into larger questions and trends in Sydney's history.

An example may better illustrate this. Edward Flood was a founder of the first Australian Cricket Club in 1826,[25] and mentioned as such in the Dictionary's essay on Sport,[26] which describes him as a publican. But Flood was later much more eminent, becoming a builder and developer, landowner, and local and colonial politician. Dictionary research undertaken for his entity page found that he was one of the builders of the Garrison Church and a Mayor of Sydney during the 1840s, and a member of both houses of the New South Wales Parliament from the 1850s until his death in 1888. He was recognised by his eminent contemporary and fellow politician W.B. Dalley as,

> A man, trained as a mechanic, occupying at one time a humble position, and proud to acknowledge that position, yet, by his own continuous and steady industry he has elevated himself to a position in which he is admired as a politician, loved as a friend and trusted as a statesman.

This illustrated that 'no man, however humble his birth, might not aspire to the proud position that [Flood] occupied'.[27] But the entry written about him for the City of Sydney's aldermen webpage (to be uploaded to the Dictionary in early 2011) did not mention his early cricketing prowess – it was Dictionary research that put the two together.

Because historical text is always written with a purpose in view, writers, quite correctly, edit for relevance. An enterprise like the Dictionary of Sydney undoes this editing, in a new way. A family connection, for instance, that a specific writer deems to be irrelevant and does not mention, will still be present in the historical model, and may inspire new questions of the text. As an example, knowing that convict and forger George Crossley's wife Anna Maria was the sister of the Superintendant of Convicts, Nicholas Devine, may indicate a fruitful line of inquiry into the reasons for Crossley's charmed early life in the colony.[28]

As the content of the Dictionary of Sydney expands, the Dictionary itself will evolve to provide the structures for historical research. As the relationships between entities and places become richer and more complex, people will be able to query the repository by type or relationship or year or area, and discover new relationships and patterns that can be mapped or further analysed. Thus the Dictionary will move from being merely a digital presentation of history to becoming a source for historical inquiry.[29]

Richard White, Director of the Stanford University Spatial History Project, has written about his project that:

> Something that I did not fully understand until I started doing this work and which I have had a hard time communicating fully to my colleagues [is that] visualization and spatial history are not about producing illustrations or maps to communicate things that you have discovered by other means. It is a means of doing research; it generates questions that might otherwise go unasked, it reveals historical relations that might otherwise go unnoticed, and it undermines, or substantiates, stories upon which we build our own versions of the past.[30]

As the Dictionary of Sydney grows, it will go beyond being a site where research is presented, and become a place where research questions are generated. We will not know what those possibilities and questions might be until we've reached the level of complexity and interconnectedness where they emerge.

Daniel Cohen argues that digital histories may ultimately transform our understanding of the idea of history. He suggests the

digital histories and archives currently being created by the historians on the web are more like the style of history embraced by Herodotus (rather than Thucydides), with multiple viewpoints (some of which were contradictory), sources, and formats. Herodotus preferred multiplicity to allow others to make the interpretations:

> I will go forward in my account, covering alike the small and great cities of mankind. For of those that were great in earlier times most have now become small, and those that were great in my time were small in the time before. Since, then, I know that man's good fortune never abides in the same place, I will make mention of both alike.[31]

In this type of digital history there is no grand narrative, no defined pathway. There are multiple pathways, hypertext annotations and stories. The multiple voices and authors in the Dictionary of Sydney may be seen as a reflection of the diversity of the city itself – the places, the peoples, the histories. This type of digital history, as Stephen Ramsay rightly concludes, is 'an invitation to community, relationship, and play'. It is a new kind of urban history that mirrors the experience of the metropolis – the intimate and the personal interact with the impersonal and random nature of city life. And because the content of this digital history can keep growing *ad infinitum*, it reflects the complexities of the metropolis and indeed the organic, topsy-turvy development of Sydney as a city.

The Dictionary of Sydney through its structure and multimedia platform also has the ability to present the auditory experience of the city as well as the physical experience. You can potentially capture the sounds of the city through recordings of ambient sounds and sensory elements. Creating a sensory history of the city, and a history of the everyday, are long term goals for the Dictionary of Sydney.

A project such as the Dictionary of Sydney has some really exciting possibilities for connecting the huge interest in family and local history into Sydney's urban and social history. Through the historical model and navigational structure of the Dictionary, the fine-grained and detailed history of individual families and places can be juxtaposed with the city-wide, national and global perspective. For example, a number of local histories on their district's suburbs – Camden,[32] Camden West,[33] Mount Hunter,[34] and Studley Park[35] – have been written by Camden Historical Society members, whose

local knowledge and sources enrich their accounts. Because the information structures, linking and presentation in the Dictionary make good connections between local history and thematic history, we quickly discover that Camden's suburbs are also mentioned in thematic entries on Charity and philanthropy,[36] Economy,[37] English,[38] Germans,[39] Italians,[40] Maltese,[41] Religion,[42] and Western Sydney.[43]

The Dictionary also has the potential to connect family history, much of which is place-based, into the city's broader urban history. The family relationships that shaped power, inheritance, property and influence in the early colony can be modelled and connected to the larger narratives of politics and development.[44]

The Dictionary of Sydney is already showing dividends in the way the amalgamation, layering and linking of articles can make new connections and bring scholarship into new contexts. By making these connections and linking apparently disparate articles through a name, facts can be cross-referenced or triangulated and discrepancies brought to light. Research from 20 or 30 years ago is only enhanced by modern research methodologies enabled by digitisation projects. Digital history is forcing historians to become more accountable; there can be no more fudging of that newspaper reference since everyone can check it, and many new references have become accessible without spending months in libraries.

And in this regard, it should be noted that the Dictionary of Sydney benefits from and is highly reliant upon many other digital history projects: such as having the *Australian Dictionary of Biography* online,[45] digitised newspapers on *Trove*,[46] indeed all the work done on online catalogues and digitisation of records. The National Library's Australian Newspapers Digitisation project is vital to the editors and researchers of the Dictionary of Sydney, and we use it, and try to help with its OCR correction, every working day. There is now a critical mass of digital history projects out there that make the encyclopaedic and hypertext annotated ambitions of the Dictionary a reality. In this sense, the Dictionary should be seen as a highly collaborative digital project. But there is no substitute for editorial oversight of content. Even in machine-made aggregations of content, there is a degree of free riding on the research and editorial investments of other institutions, and the best information in any aggregated source, such as *About NSW*,[47] comes from the most quality-controlled contributors, such as the *Australian Dictionary of Biography*.

CONNECTING INSTITUTIONS

Digital humanities projects such as this one are forcing cultural institutions to look harder at their websites and their connectivity with digital histories. The Dictionary of Sydney has been created from the start with persistent identifiers and other informational metadata that allow text-harvesting and the sharing of content. Many other cultural institutions are playing catch-up. When the Dictionary of Sydney started five years ago, the State Library of NSW didn't have persistent identifiers in their catalogues, making it exceedingly difficult to link from the Dictionary to images and catalogue information. This has since been rectified, and so references are being updated and linked.

The Dictionary of Sydney's greatest strength is its content. We have already fed into other innovative projects, such as the ABC Online's *Sydney Sidetracks*,[48] developed by Sara Barnes. And within the next six months the Dictionary of Sydney will be part of the National Library's *Trove* enterprise. We also have a relationship with Sydney Wikipedians, which we hope to develop further, bringing the Dictionary of Sydney into Wikipedia as an authoritative source for historical material on Sydney, and encouraging Wikipedians to refer to content from us in their work.

The Dictionary of Sydney Trust is also contributing to methodological research and digital history presentation, and has advised and consulted with other history projects, such as a proposed digital history of Adelaide and South Australia, an encyclopedia of Tasmania and the Queensland Historical Atlas. It is particularly interested in fostering cultural tourism and connecting Sydney's contemporary communities. The thematic homepage of the Dictionary of Sydney is being used as mechanism to connect Sydney's history with contemporary culture and communities. Three entries are selected to highlight people, places, buildings and these often relate to current cultural events, anniversaries and festivals. The front page changes regularly to move with the times.

One of the greatest pressures on the Dictionary of Sydney Trust at present is the expectation that the Dictionary will produce smart phone applications to take the city's history onto the streets. There are many new applications currently hitting our phones, but at the moment many of them play with the technology but rarely move

beyond the wow factor. For the time being, the Dictionary of Sydney is focussing upon increasing its content and media presence. The Dictionary of Sydney's digital repository has been designed as a sustainable and expandable digital repository of information so that we can ride the waves of technology. Well-structured metadata and content will allow the Trust to gradually produce many different presentation layers.

ONGOING DEVELOPMENT

With the receipt of a second Australian Research Council Linkage grant in 2010, the technical capabilities of the Dictionary will be enhanced over the next couple of years to take advantage of mobile, augmented reality and geo-spatial applications. This requires more work to provide as many entities as possible with geographical coordinates, so that they can be mapped and queried according to location.

There are two associated presentation projects. The first is taking history onto the streets with augmented reality and geo-referenced trails through the Dictionary of Sydney's content. This will really put Sydney's history in your hands out on the street and has great appeal from a local government and cultural tourism perspective. At first the content of these trails will need to be curated specially for each project; but as the content in the Dictionary increases, these trails will be able to be automatically generated. This presentation of history through mobile personal devices may, in the longer term, impact other forms of historical markers, such as plaques, walking tour brochures and interpretive signage.

The second project is Living Exhibitions, currently being developed in conjunction with the Powerhouse Museum and the Historic Houses Trust. The idea here is to harness the extraordinary amount of research that feeds into museum and library exhibitions and place it within the wider context of Sydney's history. This project has the appeal of making the ephemeral exhibition more permanent and allowing community engagement, learning and entertainment to continue well after the physical exhibition has closed. Another benefit of this type of project is the connections that the Dictionary can make between cultural institutions, curators and historians.

With the first presentation of the Dictionary of Sydney just one year old, the radical impact of this new historical model on public

history is only just beginning to emerge. Nevertheless, it is clear that the Dictionary of Sydney can provide a new platform for the publication of public history. It is starting to forge new connections between local history, family history and urban history, producing new scholarship in and contexts for our urban history. Finally, the Dictionary of Sydney provides a unified framework for Sydney's history, allowing public history to flourish and be a visible part of Sydney's culture and communities.

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