Hyperhistory: networked hypermedia and historical understanding in the Encyclopedia of Melbourne online project.

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ABSTRACT
The Encyclopedia of Melbourne is currently being developed in an interactive online format. What are the possibilities of multimedia in transforming our understanding of cities as dynamic sites of human history, which change over time and space, which are the lived and imagined spaces of insiders and outsiders, and which host negotiations and interactions between individuals, sites and a whole range of social, political and cultural institutions? By crafting the modes and trajectories through which material is accessed, by shaping the layers of content and interpretation, the online Encyclopedia hopes to engender such critical skills in individual users as historians consider valuable in understanding the past as well as the contemporary world. This paper will briefly review ways in which historians have addressed the city in digital form, elaborate the goals of the Encyclopedia of Melbourne online project and report on its progress.

Whenever I stroll from my office in the John Medley Building at the University of Melbourne to the Baillieu Library, I pass the twin Atlantes. These pillars of strength once graced the porch of the 1880 Colonial Bank in Elizabeth Street, cut and pasted in 1972 onto the eastern entrance of an underground carpark. Sometimes these fabled strongmen, bearing the world on their massive shoulders, give me strength; on other days their stern countenance and straining muscles remind me all too clearly of the burdens of the encyclopedist.

The traditional print encyclopedia — that book of knowledge to which one can refer for authoritative facts — is a fantastic beast. A quick entree into the perils of the compiler can be afforded by glancing at reviews of reference works. I keep a file of them handy, which is now about as thick as an editor's skin needs to be. Abundant praise — all these facts at one's fingertips, a distillation of scholarship, a web of cross-reference — is complemented with ubiquitous criticism, often about omissions and internal discrepancies between entries, but mainly of the variety 'why do CATS get 300 words yet DOGS only 200?' A major issue of course for the print-bound editor is not what to put in, but what to leave out.
The humanities and social sciences are now on the threshold of major changes to the way in which knowledge is both constituted and disseminated, brought about by the new information technologies. This revolution relates not simply to the capacity to publish and continually update reference works based upon large databases, but to the potential of multimedia and hypertext to facilitate the merging of interpretive sophistication, synthesis and accessibility, while at the same time providing an innovative information and educational resource.

The aim of the Encyclopedia of Melbourne Online (EOMO) is to produce for release in 2003 an interactive website which will extend the audience for content and design which rest on a rigorous scholarly methodology. Multimedia technology has for some years now held out the prospect of new processes and expressions of historical research, but limited funding, the demands of time in an increasingly frenetic workplace, as well as technological constraints, have limited practical outcomes. The demand to support research through the premature commercialisation of multimedia products has in many instances had the effect of compromising scholarly standards and stifling creativity within the history discipline.

What indeed are the possibilities of multimedia in transforming our understanding of cities as dynamic sites of human history, which change over time and space, which are the lived and imagined spaces of insiders and outsiders, and which host negotiations and interactions between individuals, sites and a whole range of social, political and cultural institutions? By crafting the modes and trajectories through which material is accessed, by shaping the layers of content and interpretation, EOMO hopes to foster critical and constructive ways of thinking about the past.

Computers have long been used as tools for the creation and manipulation of historical material, but there is a continued shortfall in the development of richly layered historical content. The proliferation of CD-ROM titles, history subject webpages and discussion groups, and the recent emergence of professional associations and journals dedicated to history and computing, testify to the growing importance of the field. In the Australian context, a critical need has been identified for historians to

1 http://www.history.unimelb.edu.au/resources/eom/
3 The first issue of the Journal of the Association for History and Computers was published in 1998.
play a significant role in influencing the evolution of digital communications within the academy and ensuring that ‘new technologies are used in ways which preserve agreed critical aims and assumptions and facilitate the intellectual evolution of new fields of historical enquiry.’ The practical online outcomes of the association between the history discipline and the new technology have tended to be course materials and syllabi, quizzes, timelines, on-this-day archives, and virtual libraries. Computers might facilitate a major transformation in the creation and communication of historical knowledge, yet practical and rigorous exploitation of the medium is in its infancy. The Journal of Educational Multimedia and Hypermedia has focussed attention on educational and design characteristics of multimedia, with little attention to the specific creation of historical materials.

Technological determinists and pessimists fear a tendency towards more superficial reading and analysis through the decline of traditional narrative suggested by hypertext. Yet as Graeme Davison and others have argued, multimedia representations of historical material have yet to test the boundaries of the exercise of the historical imagination, the internal hierarchies in texts between writers and readers, new literacies and habits of thought required by e-texts, and the implied moral responsibility of traditional literary forms as rehearsals for decision-making rather than mere literary play.

The multimedia environment is an appropriate place to juxtapose parallel or oppositional theories, but the full potential of the medium as a structure for information about the past which employs the construction of artificiality, the play between constraint and freedom, serendipity, the juxtaposition of primary and interpretive texts, is rarely tested. City history provides a very appropriate laboratory for this purpose insofar as it is possible to explore chronological, spatial and thematic linkages on a manageable scale. EOMO places the researchers in a position to contemplate, explore, reinforce, counteract and challenge broader historical themes and questions. The project enhances and explores local idiosyncrasies while at the

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same time recognising the disciplinary demands to interrogate the larger questions of social history, and the linkages between city biography and human life across wider spatial areas.

At a time when national debates about citizenship, regional and national identity, historical consciousness, and the nature of community, all feature prominently in public discourse, the study of history is marginalised both in the curriculum and by traditional print publishers. Questions about the reliability of historical sources and interpretations, and the possibilities of multimedia as a more democratic medium and a means of presenting non-linear historical narratives, as a new means of visualising the past, are therefore paramount. Individual versions and understandings of the past must be validated in the face of traditional core fact or consensus histories. The historian might therefore be uniquely placed to facilitate a multivocal approach, to articulate and order representations of the past, and in so doing to build tolerance and value difference. Multimedia has been heralded as a means of providing a new medium for historical production; not as a replacement for the book, but as a different way of exploring the past and presenting it to new audiences. Such a thesis remains to be tested, and an expected outcome of EOMO will be a practical assessment of the question posed by the discipline through the latter years of the 1990s, of whether electronic media can transform the research, analysis, teaching, and presentation of the past.

The print city encyclopedia is a relatively recent development in the United States, emerging from the concerns of urban scholars to produce exceptional and accessible reference sources while maintaining a high level of theoretical rigour and innovation (Cleveland 1987, Indianapolis 1994, New York City 1995, Los Angeles 1997). The twentieth anniversary issue of the *Journal of Urban History* in 1994 proclaimed the vigour and significance of urban history as a sub-discipline, stressing that a central pursuit remains the critical evaluation of ‘urbanism’, and the structure

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8 Heather Goodall & Karen Flick, ‘History and interactive multimedia; hi tech gimmick or a new form of community history?’, *Public History Review*, 3, 1994: 2-17.
and meaning of cities as human settings. Calls to synthesise were balanced with a continuing demand for imaginative and in-depth case-studies; a city encyclopedia has the unique ability to generate both outward looking and comparative analysis and at the same time retain the essential and individual approach of ‘urban biography’. An overview of urban history in the 1990s noted the sub-discipline’s rapid expansion in Europe, the United Kingdom, North America and Japan, observing that its readers had spread beyond the walls of the universities. The need for studies of individual cities was seen as essential to ‘our specific knowledge of cities in most places and times’, as was consideration of the ‘networks and spaces within which cities interact’.  

Melbourne is a significant city in the context of international urban growth and the Encyclopedia of Melbourne project, in seeking to explore linkages across cultural areas, is privileged at the outset by the city’s historical position as regional and national focus and as one of the world’s pre-eminent nineteenth century metropolises. Indeed, ‘Marvellous Melbourne’ symbolised the achievements of Australian urbanisation and suburbanisation. It has been claimed that the ‘city is much too vast for any single historian to embrace’. In the absence of traditional narrative city histories, city encyclopedias provide a useful and wide-ranging examination of a broad range of historical themes, encompassing as they do the relationships between individuals, spaces and social institutions. City encyclopedias are unique in their ability to collate an enormous amount of information, and most importantly to make accessible to the general reader a range of effective information-accessing tools usually the preserve only of academics and scholars.

The Encyclopedia of Melbourne Project Team began work on the print volume in 1996, its organisation and scale reflecting those of its North American counterparts. An 800,000 word single volume encyclopedia, due for publication in

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15 The project was funded from 1996-1999 by an Australian Research Council Large Grant and hosted in the History Department at Monash University. Dr Andrew Brown-May (now in the History Department at The University of Melbourne) and Dr Shurlee Swain (Australian Catholic University) are principal editors, with associate editors from Monash University (Professor Graeme Davison,
2003-4, will contain approximately 2000 A-Z illustrated entries of between 100 and 4000 words in length, covering a diversity of thematic areas from pre-European settlement up to the present day across the 31 municipalities of the greater metropolitan region. There are over 400 individual contributors to the volume.

The first print edition of the Encyclopedia of Cleveland History appeared in 1987. A free online version of this work, together with material from the Cleveland Dictionary of Biography, was launched in 1996, jointly sponsored by Case Western Reserve University and the Western Reserve Historical Society. This was the first complete urban encyclopedia to appear online, and contains all of the original articles, new articles, high-resolution versions of photographs and diagrams found in the original print text, continuous updates, revisions and corrections.\footnote{16} While lauded as a ground-breaking online resource,\footnote{17} this product's main advantage is as an updateable and searchable database. While co-editor John Grabowski contended that in its online form the encyclopedia had been 'liberated from its hardcovers',\footnote{18} and though it promotes itself as 'a rich educational resource, a useful reference tool, and a source of entertainment and remembrance', from a reading of its site its target audience, pedagogical subtlety, and authorial lineages, are in fact mostly indeterminate. Users may search for entries which have been 'updated, revised, or otherwise modified' during a specified time period, yet search results betray no record of the first date of an entry (and therefore incremental change), nor individual authorship of original or modified entries.

Editors of the Encyclopedia of Chicago History, a collaboration between the Chicago Historical Society and the Newberry Library, planned for print publication in 2002, signalled their intention to prototype alongside the print production a
multimedia version for release at a later date. The Chicago team has also been working with Northwestern University to bring out an electronic version, 'more spectacular than the print version' according to Douglas Greenberg, president of the Society. While urban historians may have begun to theorise multimedia methodologies in the interpretation of urban history, no advanced outcomes have yet been achieved.

In addressing the presentation of place-based data, EOMO has established three core interactive modes: **Browse**, **Learn** and **Search**. Collaboration with representatives of the indigenous Wurundjeri people has established the basis for a multimedia presentation of their gum-leaf welcoming ceremony and of highlighting the relationship of Melbourne's indigenous peoples to place through history. In the **Search** mode users will be able to search the full text of Encyclopedia entries, with functions including partial word matching, categorised results, and boolean matching. Within the **Browse** mode, a grammar of functions enables exploration of historical materials and interpretations through random events, newsflashes, period narrations, personal stories, future visions, alternative navigational devices and pathways, panoramic views, soundscapes and map sections.

When a visitor enters EOMO, they are welcomed by a version of the Wurundjeri gumleaf ceremony. They are then be presented with a representation of the Melbourne City grid, and the ability to view numerous details on the various sections of the map. An audio/visual introduction to the time period selected accompanies the map and provides a relevant overview of Melbourne. The history of the city is divided into nine time periods. Users have the option to view Melbourne at any one of the various time periods, and the ability to traverse the Melbourne City grid. Each period represented in the entire city map contains period-specific items providing richer layers of content and interpretive detail. The map items appear and disappear while travelling between time periods, some items spanning multiple time periods. Users are able to click a type of icon in order to view a ‘snapshot’ of Melbourne appropriate to the time period they are in. The representations of people, buildings and events on the map are treated in an iconic fashion, providing a fluid

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19 [http://www.sscnet.ucla.edu/history/reiff/chicago.html](http://www.sscnet.ucla.edu/history/reiff/chicago.html)  
20 Barbara Whitaker, 'Online Encyclopedia opens doors in Texas'.  
21 There are of course many urban and city-based sites with historical content apart from encyclopedias, but they are beyond the scope of this brief review. A useful starting point is the H-Urban links page at [http://www2.h-net.msu.edu/~urban/weblinks/index.htm](http://www2.h-net.msu.edu/~urban/weblinks/index.htm)
user experience over the internet. The treatment of the specific items consists of audio commentary accompanied by a sequence of image transitions and blends. This linear presentation may be followed by one or more interactive items or explorations which add to the richness of the engagement. The non-sequential approach of the browse environment enables users to wander the city, traversing the historical and conceptual links between entries and primary sources according to individual interests.

The default advantages on the online presentation of encyclopedias are generally assumed to be their updatability (including corrections of existing and addition of new entries), searchability, and unlimited space for illustrative materials in multiple formats. With many print encyclopedias already including cross-referenced entries, online databases with internal hypertext links are a natural progression. But if these are the only apparent advantages, it might fairly be argued that such productions overstate their claim to novelty. With the high cost of multimedia production and maintenance, and equity considerations of web access, critics of digital production demand that developers not take for granted the qualitative advantages of multimedia over print. While interactivity is the apparent sine qua non of online products, if it is not completely chimerical, it might yet be claimed to be 'vastly overrated as a distinction of the digital media' when it comes to history-based exemplars.22

Online presentation of the past, it is argued, might take scholarship out of the ivory tower. Interactivity, multilayered narrative, limitless sources, the possibilities for critical reading — such functions have also been touted for nearly a decade as the great benefit of interactive multimedia.23 In practice, it seems, the democratizing potential of the web is more uncertain. At one extreme are academics who, as Peter C. Baldwin so aptly puts it, 'having perfected a style of writing that repels the uninitiated, are now spreading it on the Internet.24 At another extreme is the populist encyclozine which in shunning professional and academic history cuts users adrift in a sea of uncritical opinion and sources of uncertain provenance.25 Most history websites have only a very vague sense of their intended audiences, so easily accounted for in their

23 Goodall & Flick, 'History and interactive multimedia'.
25 Ethington & Stoilov, 'Review'.
mission statements by grab-bag constituencies of historians, school children, teachers, urban developers, tourists, and government agencies. The extent to which the needs of these diverse and often competing users can be accommodated is less clear.

The structure of EOMO, with its three core modes, recognises the needs of critical users requiring a variety of strategies for finding information. Users need to be able to be selective, to develop means of judging credibility, to assess what is absent as well as present in material presented, and to question whose interests are being served by the presentation of particular information.26 Though there is of course no such thing as the typical user, a balance is required between the need for delivering information and the potential of an online environment for more random enjoyment. The home user of mass market multimedia information products may rate search criteria and textual content as the most important features of a site, yet observed patterns of use betray engagement with aesthetics and interactivity in unfocussed browsing to the exclusion of time spent reading text.27 In the face of these playful tendencies, the demand for 'deep reading' rather than superficiality, an affirmation of the passing of time and the accretion of history, and the role of decision making and moral positioning, might yet be asserted.28 Updates to text databases should be dated, and added to existing material rather than replacing it. As in the EOMO Learn mode, educational social simulations, hypotheticals and counter-factuals should be targeted to specific age groups and curriculum needs. The idea of immersive environments for teaching history with multimedia is again hardly novel; urban historians have championed such interactives where 'choices and their outcomes can be supported through reference to actual historical individuals, known through memoirs or other primary sources'. Wanting students 'to walk a mile in the shoes of ordinary people in a historical era' rarely comes to fruition in this way because of the financial, technical and career constraints of contemporary teaching workplaces.29

In the face of a plethora of online infopedias, gazetteers, fast-fact sites, city-searches and locality guides, the challenges for EOMO are about relevance and

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competition as well as authority and pedagogy. The production of local multimedia product anchored in collaboration with local cultural institutions provides a critical means of preserving national cultural integrity in a digital world where discrete cultures are vulnerable to global homogenisation. On issues of veracity, authorship and copyright — often dismissed in cavalier fashion as too complicated both in terms of the rights of creators to acknowledgment and the integrity of their work, and the rights of users to access the provenance of information — EOMO would not claim to be setting the standard, but at least an example.

While it is well for archivists, heritage managers and those uploading scholarly editions to develop editing and encoding standards which enhance interoperability and durability, such nugatory prescription might misread the practical, commercial as well as creative realities and limitations both of the web and of under-resourced humanities scholars. In the age of a 'new tendency towards pragmatism' when it comes to electronic publishing, not all scholarly outcomes are set on erecting research archives for arcane users in some indeterminate future. EOMO might bridge the divide between participatory and authored history, an objective so desired by historians but yet to be expressed in much online content. It is a salutary truism that the web is not an encyclopedia; it remains to be seen what kind of city encyclopedia can be mounted on the shoulders of this elusive giant.

31 Peter Spearritt, ‘Content, access and equity in the new communications environment’, Culture and Policy, 8, 1 (1997): 115-132. See also Ethington & Stoilov.
34 Ethington & Stoilov.