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Surfing the Internet and Academic  
Research: What Use for Historians?

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## **‘Surfing the INTERNET’ and Academic Research: What Use for Historians?**

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**ABSTRACT**                      The Internet is a relatively new phenomenon whose value has yet to be proven in an academic research environment. Many scholars remain sceptical of its uses beyond entertainment and the supply of general information. Through the example of historical research, this paper attempts to reveal both the present limitations and future scope of the new technology.

**Introduction**                      The Internet is a phenomenon which has gained widespread recognition in a relatively short period of time. The term ‘Surfing the Internet’ is a highly popular metaphor employed in the media and among computer buffs, apparently having first been used in its present context by American Jean Armour Polly in 1992,<sup>2</sup> though surfing analogies had been applied to various aspects of computing and information technology prior to this. It is also a typically Australian way of describing a decidedly non-physical activity which, like its more strenuous counterpart, takes us on a journey in which we are at the mercy of the elements, be they natural or electronic. Surfers, whether on board, ski, or as body-surfer, catch waves certain of one thing only, namely that they will ultimately end up on the beach. The process of getting there is dependent upon the forces of nature (i.e. the surf) and the skills of the individual. Likewise, ‘Surfing the Internet’ is an adventure into the unknown, fraught with trepidation and danger for the inexperienced. One is liable to take a direction which is unforeseen and uncontrollable,

until finally 'thrown up upon the beach' at a desirable or satisfactory destination. Alternatively, one can find oneself 'dumped' by the computer. Whilst 'Surfing the Internet' may be just as exhilarating (intellectually speaking) as catching a wave, do not expect to emerge from the encounter looking like a 'bronzed Aussie', for in reality the majority of Internet surfers are pale-faced and bleary eyed.

The point of this analogy between the physical act of surfing - which is so much a part of the culture of urban Australia - and the intellectual process of 'Surfing the Internet', is that we should only look upon the latter with as much dread as we would in taking those first steps into icy waters during late spring or early summer. As any surfer will tell you, no matter how cold and difficult those steps may be, the experience is usually an invigorating one. Likewise with the Internet - technophobia is unwarranted, and individuals of all ages are adopting the new technology with much enthusiasm. The spread of the Internet is simply an extension of the evolutionary process which has seen personal computers become an integral part of the research process. It continues to evolve from the familiar, and is now used as an everyday research tool in universities, schools, businesses and the home. Scores of books have recently appeared on the subject, it is discussed in detail on television shows such as the ABC's *Hot Chips*, and Australia has two Internet magazines, *Internet.au* and *Internet Australasia*, reflecting this popular interest. Even that most sacred of all Australian institutions - the pub - is getting on board the information superhighway, with one Sydney hotel having recently opened its own 'Internet Bar', following the emergence of Internet cafes.<sup>3</sup> The question could then be asked - how will this information revolution affect academic research, and historians in particular?

**Historians, the Internet and Technological Change** For centuries historians have been visiting libraries and archives to carry out research. Their first step upon arrival was usually to seek assistance from the librarian or archivist, who in turn referred them to a

card index or printed guide. This basic scenario is now changing with the rapid changes in technology.<sup>4</sup> Formerly, research was almost invariably restricted to the material available in-house, or it was necessary to travel to access external collections. Comprehensive card indexes and listings were compiled for individual holdings and, where possible, listings were circulated between institutions. The State Library of New South Wales and the Mitchell Library are good examples of this, with the latter continuing as one resource centre where the card index remains an important access point. In a modern academic library, such as the University of Wollongong Library, the card index has long since been replaced by a computerised, online catalogue, giving up-to-date information on both item content and availability.

In recent years reduced budgets, together with increasing maintenance costs, have forced libraries and archives to develop external regional and global alliances. Rather than continuing to apply limited resources to building comprehensive collections, they have developed specialised collection policies in order to acquire materials within defined areas. It has therefore become more important than ever to publicise such collections among the different collecting institutions. This has been greatly assisted in the past decade by the advent of networked online catalogues, with a catalogue in one institution now easily accessible off-site. Researchers such as historians are thus no longer limited to in-house card catalogues or published guides in their search for information; they instead have the world at their fingertips, via external library catalogues and assorted online databases and resources available on the Internet. In effect, they are making use of a world-wide 'virtual library'.

Hours could be spent describing and defining aspects of the Internet, from its history, organisation and operation, to language protocols and points of access. Simply put, the Internet is a network of computer networks - a telephone system with information (as opposed to individuals) at the end of the line. To gain access we 'dial-up' the Internet address, or URL (which is equivalent to the traditional telephone number, though usually

composed of letters as opposed to numbers), and a computer with information will answer our call. The information it provides can be in the form of words, pictures, and/or sound. In the current online environment, historians are primarily interested in textual resources, though images are also useful, especially as teaching aids.

Currently users may gain free access to the Internet from a university campus (as a student or staff member) or as an employee of a company or business similarly connected. They may also pay to access the Internet from home through a commercial service provider. This involves an investment in the necessary hardware - a computer and modem - and software, as well as subscription charges to the provider. Internet service providers are found in most capital cities in Australia and regional centres. A cheaper way to access the Internet would be through a public access site, such as a public library or Internet cafe, but as yet few such sites are available, though this will no doubt change in the future.<sup>5</sup> Once access has been gained, individuals can use the Internet in a variety of ways.

### **The Internet as Communication System**

**Electronic mail (e-mail)** is a popular way for historians to communicate, and having an Internet account is one means of accessing an e-mail system. The speed with which one can send and receive mail with this system enhances communication and, in addition, it is possible to attach files just as one would enclose items with regular letters. A file might be a conference announcement with application form to be completed and returned by e-mail, or it may be a draft journal article seeking comment from a colleague. E-mail has been called "the best thing about the Internet",<sup>6</sup> in that it allows one to send a message around the world and to receive an answer moments later. There is little argument about its general benefits.

**Electronic discussion groups**, sometimes referred to as mailing lists, listservs, or electronic conferences, also provide new informal communication channels for historians. These lists are initiated by a person or group interested in offering a particular discussion forum. The initiator provides a networked computer to host the forum and members subscribe via their e-mail accounts. A list usually has a moderator who screens messages for the group and messages sent to the list are forwarded on to subscribers. The list may be used for discussion and sharing of opinions, for dissemination of conference announcements and for access to its archives where past topics of discussion can be searched.<sup>7</sup> Hundreds of discussion groups exist on many subjects, and several directories - in print and on the Internet - list details of these groups by topic. One of the most useful is Diane Kovacs' Directory of Scholarly Electronic Conferences.<sup>8</sup> Examples of discussion groups include an Australian and New Zealand history forum known as AUSTRALIA-NZ-HISTORY-L, and other history forums such as H-ASIA, H-LABOR, HOLOCAUS, RUSHIST, SOVHIST and WWII-L.

**The Internet as Information Resource** Besides its ability to enhance communication between individuals, the Internet is slowly taking on the role of information storehouse, though its main use at present is for entertainment and the supply of general information. It can be used as a guide to the location of source material, providing access to library catalogues and archival listings. For example, Glen Segel's gopher site `Internet History: General Internet Navigation Tools and Sources' (gopher://rsl.ox.ac.uk:70/h0/hist-corn/segel) contains references (links) to a variety of history-based resources, including discussion groups, other gopher sites, online electronic journals and search engines.

Increasingly information providers are using the Internet to enable direct access to primary sources documents, such as online newspapers, electronic journals, manuscripts and other electronic texts and images. This new technology offers the facility for

viewing, searching and downloading such material. Some institutions, such as the University of Virginia's Alderman Library, are purchasing and establishing online texts "as a mainstream resource for pedagogy and research".<sup>9</sup> The University of Virginia has also embarked on the scanning of original historical documents for Internet access, documents which would normally require viewing within that institution. Although access to such documents or images may currently be a fairly slow process, ongoing improvements in the capabilities of personal computers to store and process large quantities of data means that the Internet is daily becoming more useful to the researcher. The amount of information presently available on the Internet is enormous - numbering some tens of millions of web pages alone<sup>10</sup> - and growing daily. It is accessed from a variety of sources, some of which are referred to below.

**Library catalogues** throughout the world can be accessed via the Internet thus allowing historians to search these huge library databases from their own desktops. One can contact a library directly or go through a site such as the Australian National University which provides access points via its gopher server (<gopher://info.anu.edu.au>).

**Commercial databases** such as bibliographic databases, formerly only available on CD ROM or by remote online access, can also be accessed via the Internet. Such databases usually require separate paid subscriptions by individuals or libraries. The University of Wollongong Library, for instance, subscribes to a number of commercial providers allowing access to databases such as the Arts and Humanities Citation Index or WorldCat, a catalogue of nearly thirty million records from the world's largest network of libraries. Staff and students at the university can use these databases from their desktops via **telnet**, a facility which allows one Internet host computer to become a terminal of another Internet host computer.

**Campus wide information services (CWIS)** may be used by historians to locate information on academic and administrative services in universities. Academics at the University of Wollongong can contribute pages of information to their local CWIS in order to provide campus and world-wide access to their departmental teaching and research programs, and even to the full-text of staff working papers. Likewise they can access similar information for university departments and research bodies around the world. As an example, the University of Wollongong Library has contributed information about its Archives collection to the university's CWIS (<http://www.uow.edu/public/library/archives.htm>).

**Electronic journals and newsletters** are increasing in the humanities area despite ongoing debate about copyright protection, quality, refereeing processes and access. Their acceptance as journals of record, with equal status to their printed counterparts, is proving a slow process, with many academics preferring to follow the traditional avenues of publication and unwilling to submit material to the online versions. *Online Modern History Review* (<gopher://freenet.victoria.bc.ca:70/11/archives/history>) is a refereed journal published in electronic format in British Columbia, Canada while *Clionet* (<gopher://gopher.cic.net:2000/11/e-serials/archive/general/history/clionet>) is an Australia electronic history journal produced by the History Department at James Cook University.<sup>11</sup> The journal *Essays in History* is published by the Corcoran Department of History at the University of Virginia (<http://www.lib.virginia.edu/journals/EH/EH.html>).

**Subject guides** provide lists of information resources available on the Internet and are easily navigated via a topic hierarchy. These guides may be found by directly accessing specific Internet sites such as the Clearinghouse at the University of Michigan Library.<sup>12</sup> They can also be reached through 'search engines' and catalogues on the World Wide

Web which allow searching for resources by subject keywords. Useful search engines and other tools for reaching subject guides are listed in Appendix A.

**Accessing the Internet through the World Wide Web** Several search tools have been designed to help navigate the Internet. These include Gopher, Archie, Veronica, WAIS, and the software packages Mosaic and Netscape. These individual tools are often used to reach the same information but vary in sophistication and ease of use, while the more recent innovations incorporate graphics capabilities. The World Wide Web, which first appeared in 1990, is another system which has been designed to improve ease of access to the Internet. It is menu-based and operates through a series of pages with buried hypertext links. Throughout the Internet thousands of web servers exist, containing files of information known as web pages. A web client or browser, such as Netscape, allows users to move easily through these pages to resources which can include text documents, graphics and sound files.

Every page on the web has a unique address, known as a Uniform Resource Locator (URL). Access to a page is via its URL, so, for example, the Prime Minister's Home Page has the URL, <http://gov.info.au/pm/pmhp.html>. One web page can contain references to other web pages, via hypertext links. The Internet user can 'turn' these pages by clicking on the links. The Prime Minister's Home Page, for instance, has a link to the Australian Government Home Page (<http://gov.info.au/aghp.html#Contents>), which in turn links to sites such as the Australian Legal Information Institute (<http://www.austlii.edu.au>) which contains federal legislation online.

It is relatively simple to access a particular page via its exact URL and to further browse by clicking on the links from one page to another. This is often a useful way to find additional resources but can also lead the user into a labyrinth of sources offering overwhelming choices. A move from one page to another leads to a new URL each time and users need to make a note of these URLs for pages to which they wish to return.

Using Netscape's bookmarking facility is an effective way to ensure that useful web sites are saved for future visits.

Searching for specific resources by topic on the World Wide Web is best performed with the aid of search engines. Using a search engine involves connecting to a particular address where one can type in keywords or phrases and often combine them using Boolean logic. A number of search engines search within the titles of documents while others search the full-text of documents to retrieve hits on the search. Within a search engine such as Lycos (<http://lycos.cs.cmu.edu>), these hits are displayed in order of relevance to the query. A list of popular search engines is included in Appendix A.

### **Surfing the Internet: some history examples**

Academic historians remain sceptical of the Internet's use for high level research, with such scepticism warranted due to the fact that there are relatively few sites on the Internet with substantial collections of primary source documents of use to historians. It is clear, however, that through the Internet, a version of the electronic research assistant has arrived and is here to stay. To illustrate the current effectiveness of the Internet with regards to historical studies, several search examples are reproduced below. These assume the use of Netscape to browse the World Wide Web.

#### *An electronic discussion group*

A useful starting point to discover relevant history electronic discussion lists is through Diane Kovacs' Directory of Scholarly Electronic Conferences. From the introductory page, one can link to a subject-based listing and choose a topic such as History to further link to titles of discussion groups in the history area. Clicking on any title will reveal more information about the list, including its subscription details. Subscription is usually activated through e-mail.

*An electronic journal* At the National Library of Australia home page (<http://www.nla.gov.au>) one is provided with a link to a list of Australian electronic journals. Once selected, there is a facility to browse a list of journals alphabetically. From the list, there is usually a direct link to the journal itself or the necessary information for accessing the journal will be given. Newspapers are also included, for example, *The Age* (<http://www.theage.com.au>).

*A subject resource list* A useful starting point is the WWW Virtual Library (<http://www.w3.org/hypertext/DataSources/bySubject/Overview.html>). From the introductory screen, one can browse through an alphabetical listing of subjects. *Aboriginal Studies*, for example, is one choice which links to a number of sites dealing with Australian Aboriginal Studies (such as that of the Australian National University) as well as with Indigenous and Native Peoples studies in general. Alternatively, clicking on the heading *History* provides access to a comprehensive alphabetical list of history resources compiled by the University of Kansas but linking to sites world-wide (<http://history.cc.ukans.edu/history/index.html>). This listing is huge but it is worth the time required for loading as it covers topics as diverse as Ancient Egypt, Asian Studies, Bibliographies, Early Modern Europe, the Holocaust, Islamic Resources, Latin America, Military History, Roman Studies, Russian and Eastern European Studies, United Kingdom Archives, and numerous United States studies. Following the links from this page leads, for instance, to the 1755 French and Indian War home page (<http://web.syr.edu/laroux/>). This site has been created as a work-in-progress by an historian involved in writing a reference book on the topic. It includes information on regiments, statistics of deaths due to battles, and even the names of those wounded and killed.

*An historical document*                      A visit to some of the facilities of the Electronic Text Center at the University of Virginia (<http://www.lib.virginia.edu/etext/ETC.html>) highlights the potential publishing possibilities of the WWW. During courses on electronic texts run by the Rare Book School at the university, attendees mount an electronic version of a print or manuscript text, mark its structure with SGML tagging and create digital images of sample pages and illustrations to produce a hypertext document. As mentioned earlier, the Library has recently facilitated the scanning of original historical documents for Internet access, with a collection of such material available at <http://etext.lib.virginia.edu/rbs/rbs16-95.html>.

*A museum site*                      Through [http://www.ifs.univie.ac.at/museum/museum\\_g.htm](http://www.ifs.univie.ac.at/museum/museum_g.htm), one can visit the Museum of Mankind in Vienna and search for material relating to Australia and Oceania. From the Museum of Mankind introductory page, one can link to screens dealing with Collections / Geographical Regions / Oceania / Cook Collection. From here it is easy to link to the individual document level - for example, a colour image of a Hawaiian artefact acquired by Captain James Cook during his third voyage of discovery to the Pacific in 1778. Although the text at this site is in German (an English version is being developed), the WWW's intuitive links and a basic German dictionary can allow the researcher to open doors to collections on the other side of the world.

**Issues for Historians**                      Seasoned WWW browsers will have experienced some of or all of the problems inherent in the system. One of these is traffic congestion which slows down access to sites, or may prevent connection during peak use periods. Australian users can overcome this to some extent by accessing the Internet at times outside of United States and European daylight hours. Frustration also occurs when web sites 'disappear', addresses change, or documents are not updated. This, along with an apparent lack of organisation of information on the Internet (due to its vastness and

recent uncontrolled growth), can lead to a lot of wasted time and effort for little result. New improved search engines are helping to overcome this.

There has also been much debate about the quality of information on the Internet, however as the World Wide Web is a relatively new phenomenon, this issue will hopefully be addressed with further improvements in technology and wider involvement by the research community. Academics, the teaching fraternity, and researchers will no doubt make increasing use of the Internet's information and resources for their research and teaching programs, whilst sharing its facilities with those who prefer to use it for business, pleasure or entertainment. The usual problems of technophobia will be encountered with this relatively new information technology, but increasingly sophisticated interfaces such as Netscape will continue to help counteract this. At the moment the Internet is relatively inexpensive to use, and governments are keen to keep it so. However, this situation may change in the future.

Despite the aforementioned concerns regarding expense, quality of information, and ultimate usefulness, there is no denying that the Internet is a revolutionary communication system, providing historians, and researchers in general, with access to a vast storehouse of information. It is also an innovative educational resource, relatively cheap and easy to use, entertaining, and fun. The scope for its use by historians appears to be limitless.

## **Notes**

- <sup>1</sup> Michael Organ (morgan@uow.edu.au) is Archivist at the University of Wollongong. Catriona McGurk (c.mcgurk@uow.edu.au) is Faculty Librarian for the Arts Faculty at the same institution. A version of this paper was originally presented at the *Annual Conference of the Royal Australian Historical Society with Affiliated Societies: Visualising History: New Tools for Old Tasks* University of Wollongong 7-8 October 1995.

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- <sup>2</sup> Jean Armour Polly 'Surfing the Internet: An Introduction' *Wilson Library Bulletin* June 1992 pp38-42, 155.
- <sup>3</sup> The Paragon Hotel, Alfred & Loftus Streets, Circular Quay. A number of Internet cafes have also begun operating in major capital cities, e.g. the Well Connected Cafe at Glebe, Sydney. Cf K Phelps *Surf's Up: Internet Australia Style* Mandarin Melbourne 1995.
- <sup>4</sup> Refer John Mulvaney and Colin Steele (eds) *Changes in Scholarly Communication Patterns* Occasional Paper No 15 Australian Academy of the Humanities Canberra 1993; Ann Okerson (ed) *Filling the Pipeline and Paying the Piper - Scholarly Publishing on the Electronic Networks, Proceedings of the Fourth Symposium, 5-7 November 1994, Washington, DC* Association of Research Libraries and Association of American University Presses Washington DC January 1995; Alan Mayne 'The Internet and the Historian' in *Cause '94 in Australasia - Information Resource Management in Australia, Conference Proceedings, 10-13 July 1994* Melbourne 1994 pp186-96; Claire-Lise Benaud and Sever Bordelanu 'Electronic Resources in the Humanities' *RSR: References Services Review* 23(2) Summer 1995 pp41-50.
- <sup>5</sup> Morris Jones 'Try before you buy: a hitchhiker's guide to the Internet' *Internet Australasia* 1(9) September 1995 pp80-83.
- <sup>6</sup> D Irvine 'Email: history' *NetUser* 2 June/July 1995 pp37-40.
- <sup>7</sup> In regards to the Internet, the term 'archives' is widely used to refer to an electronic site where information is stored or archived. This can cause problems when using an Internet subject search to locate a traditional archival institution such as the Australian Archives (<http://www.aa.gov.au>) or University of Sydney Archives.
- <sup>8</sup> D Kovacs Directory of Scholarly Electronic Conferences 1995 (<http://www.mid.net/KOVACS/index.html#Sindex>). Cf D Kovacs 'Internet Resources and Humanities Reference Services' in *Emerging Communities - 30th Clinic on Library Applications of Data Processing* Graduate School of Library & Information Science University of Illinois 1994 and D Kovacs et al *Directory of Scholarly Electronic Conferences* Kent State University, Kent Ohio 1994.

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- <sup>9</sup> *The Electronic Text Center & On-Line Archive of Electronic Texts*, (pamphlet), Alderman Library, University of Virginia, Charlottesville, VA, March 1995. Distributed during a talk given by David Seaman, Coordinator of the Center, in the Fisher Library, University of Sydney, 25 September 1995. (<http://www.lib.virginia.edu/etext/ETC.html>).
- <sup>10</sup> The term `web' is an abbreviation of World Wide Web, also written as WWW or W3. The Lycos search engine claims to have access to over 13 million web pages when carrying out a search
- <sup>11</sup> A list of Australian electronic journals is available through the National Library of Australia (<http://www.nla.gov.au/oz/ausejour/a.html>). Cf *Directory of Electronic Journals, Newsletters and Academic Discussion Lists* Association of Research Libraries Office of Scientific and Academic Publishing Washington 1995.
- <sup>12</sup> For example, the University of Michigan Library's `Clearinghouse for Subject-Oriented Internet Resource Guides' (<http://www.lib.umich.edu/chhome.html>).