

Spinning the Web Site: understanding new media literacies

Anne Cranny-Francis

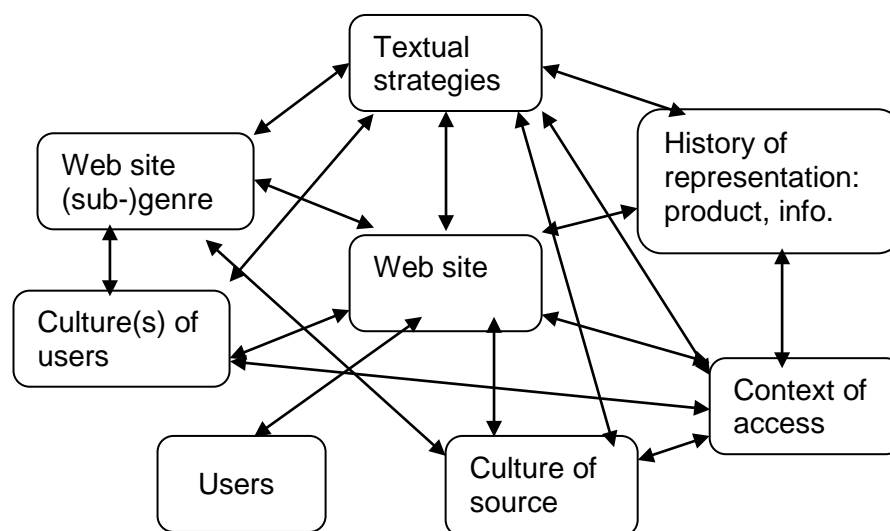
Department of Critical & Cultural Studies
Macquarie University

This paper is entitled 'Spinning the web site' in order to indicate the many different kinds of spinning that are involved in the meaning-making practices of a web site. The web site creates - or spins - meanings for particular audiences; like the spin doctor who presents a politician's ideas in appropriate forms for different publics. In creating those meanings the designer spins a web of textual practices - a web site - that can be accessed by users, who then generate meanings from the encounter. And that web site subsequently becomes part of the (metaphorical) web that is the internet - as all texts become part of the babel of texts that constitutes our textual universe (Bakhtin, 1981). In understanding new media literacies, then, we must travel to the heart of 'spin' - to discover the many ways in which the web site generates meanings and is positioned in relation to both audiences and products/processes in order to communicate those meanings. Which is simultaneously an exploration of contemporary meaning-making in its many multi-modal and multimedia forms.

Methodology

There are many different ways to analyse the meanings of a web site and how it addresses its audiences, including ethnographic studies of audience or user behaviours, economic and political studies of the spread of web-based technologies, laboratory testing of user interactions with the interface,

and the in-depth textual analysis that I use in this paper. Textual analysis of the web site cannot be carried out in a vacuum, however; it relies on detailed knowledge and understanding of the web as a medium, of the potential users of a particular web site and their cultures, as well as of the culture of the source (individual, organization, business) of the web site. This set of knowledges might be described as follows:



Matrix of influences: web site, as in Cranny-Francis (2005: 161)

The particular web site for analysis is situated in relation to a range of factors, all of which shape its composition. These include the kind of web site it is, its sub-genre - where 'web site' is identified as a textual genre with many varieties (or sub-genres). So, for example, a museum web site is a specific kind (sub-genre) of web site that shares many conventions or characteristics with other museum sites, with which it may be compared and contrasted (this is discussed

further later in the paper). The generic identity of the site determines the kinds of textual strategies used at the site, which are appropriate to not only a web site but also a particular kind of web site. So a museum web site is likely to use strategies that are related specifically to its functions as educator; others that relate to its role as representative of a government and/or national identity.

The web site is also situated in relation to the audiences or users for that site; that is, it has to appeal to and make sense to those users. This means the analyst needs to be able to predict what those audiences might be (as the designer and source has done) and therefore the cultures of those users, as the textual strategies used at the site are chosen to appeal to those user cultures. The context of access is also a factor and is related to both the source of the site and the user cultures involved. So the site may be part of an intranet specific to a particular organization or institution rather than available to all internet users - as found in some art galleries and museums. Also users (or some of the users) for the site may only have limited access to the medium: for example, many older users do not have access in their homes but rely on library computers.

The site is also positioned by or in relation to both its own source culture and the history of representation of that

culture and its products. So the organization or business (or individual) that is the source of the site has its own culture, related to its social, cultural and political function and practice. For example, a museum web site is embedded in a set of imperatives that relate to its disciplinary roots as a museum (with its own museological discourses) as well as to its role in representing - at least in Australia - the governments that have provided the funding and the community that it, and the governments, represent. As we have recently seen in relation to the National Museum of Australia, this is a very complex negotiation: see, for example, Windschuttle, 2001; Pegrum and Metcalf, 2001; Jencks, 2001; Ward, 2001; Stead, 2002; Davison, 2002; Morgan, 2002; Slattery, 2002; Bull, Stead and Ashton, 2002; National Museum of Australia, 2003; Casey, 2002; Atwood, 2003; Keniger, 2003. Business web sites have a source culture that is equally influential in the development of the web site. Consider, for example, the difference you might predict between the web site for a business such as retailer, David Jones (www.davidjones.com.au/home.jsp) and that of independent Australian hip-hop producer, Obese Records ("Fatter Than Ya Mama ") (www.obeserecords.com). In all cases the history of representation of the products or information or services offered at the site is also crucial to the design of the site. That is, the designer of the site has in mind not only the representational practices of web-based texts but also earlier

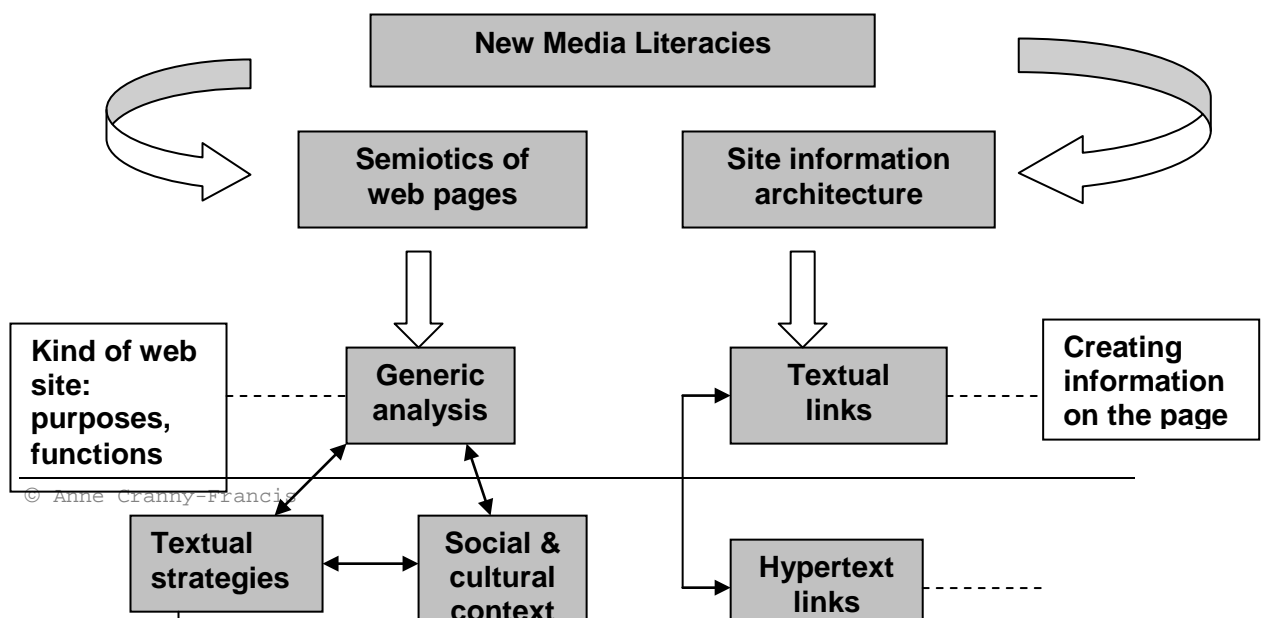
modes of representation from which the web representation has been derived and to which it often refers. So, the museum has a history of scientific, anthropological and historical writing and visual representation; a department store retailer has a history of product marketing; an independent record producer also has a history of product marketing (though quite different from that of a department store retailer such as *David Jones*).

Research on all of these influences and practices is essential background to the analysis of a particular web site and its use of textual strategies. So the first step in analysing a particular web site is to locate the text as a social, cultural and textual practice. Having done this we may then move to the pages of the web site, analyzing the textual strategies used and the meanings they offer to users. We also need to consider the (hypertext) links - within the site and to other sites - as they reveal the implicit beliefs and values of the site. For example, we might consider the different value system revealed by an Australian Museum site that provides a link to the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) and one that does not. How have these two museums represented their relationship to Australian Indigenous knowledges and so to Australian Indigenous cultures?

So the analysis of an individual web site involves a large number of different, interrelated analyses, each with their own background information and knowledges. Further, the analysis is an iterative process, with the semiotic analysis of textual practice reviewed repeatedly in response to the research on each of the background and positioning practices involved in the design of the site.

Analyzing textual practice

The following diagram is an attempt to capture the textual analysis of the web site, however, as noted above, this takes place in constant dialogue with the many cultures into which the web site is inserted and to which it responds. So new media literacies (applied to web sites) are construed in this diagram as deriving from and/or as represented by the skills required to understand and analyze both the semiotics of the pages of a web site and the site's information architecture, where that is understood as the set of links within the site and to other sites that reveals the underlying structure (architecture) of the site's meanings.



The semiotics of the web pages is accessed by a combination of practices: generic analysis of the text (i.e. the web site), detailed analysis of the textual strategies used on the site's pages, and analysis of the social and cultural context of the site (referring back to the earlier discussion of methodology).

i. Generic analysis

Generic analysis begins with the obvious first step of locating the genre of the text, which is 'web site'. This immediately identifies a range of characteristic properties, practices and possibilities:

- the text is digital and is either accessible through the internet, or is part of a network of computers (intranet) internal to an organization or business
- the site is accessed via a URL (Uniform Resource Locator), which is its address and is basically a set of

pages linked together technically (and according to a logic that can be analyzed discursively)

- movement to and from the site, and between pages of the site, is enabled by clicking on the mouse (for most users) or by voice commands
- the source of the site is likely to be identified on the first page of the site, called the Home page (as well as on many other pages), which is particularly important as it usually determines whether a visitor stays at a site
- the Home page usually has a set of links to other pages on the site.
- choice of textual strategies used on the Home (and other) pages is determined partly by the technology available - bandwidth for delivery and computer memory, as well as access to programs

Having taken this step, we can then explore what kind of web site this is, since this will tell us a great deal about the textual strategies used on the site. At this point it may be useful to note that the notion of genre used here is derived from the work of Mikhail Bakhtin and is closely related to the social, cultural and political function of the site - rather than to a checklist of conventions or textual properties. To locate the kind or sub-genre of web site we might use a set of characteristics such as the following:

Some types or sub-genres of web site	Characteristics
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Government/Institutional	<ul style="list-style-type: none"> ▪ serving the public, by giving access to information ▪ creating an identity for that government instrumentality ▪ supporting the instrumentality by buying products
Commercial	<ul style="list-style-type: none"> ▪ selling a product or service ▪ creating an identity attractive to consumers ▪ identifying the provider with the product/service
Fan	<ul style="list-style-type: none"> ▪ providing a creative outlet for the fan ▪ publishing views and/or information about the fan subject ▪ creating a community of fans to share their interest ▪ identifying that fan as a supporter of the fan subject
Educational	<ul style="list-style-type: none"> ▪ serving the clients by making educational services available ▪ creating an environment for self-directed learning ▪ selling the service ▪ constructing an authoritative identity

Table adapted from Cranny-Francis (2005: 45)

Again, the value of this understanding of genre is that it enables us to compare and contrast web sites with a similar purpose and function (as do users and audiences moving between similar web sites). Of course, as with all understandings of genre it is important to note that most texts are combinations of genres (Derrida, 1980), though some might predominantly relate or refer to a particular genre. Museum web sites, for example, can be analysed as a combination of educational site and government or institutional site. We can then explore how

a particular museum web site utilizes its semiotic resources to respond to the demands of this combination of genres, and we can also compare and contrast different museum sites for their responses to this complex task.

If we compile the list of issues raised by the combination of educational and government site as a profile of the museum site, we have the following:

- How does the site serve the public; how does it give access to information - and what information does it give access to?
- What identity does it create for that government instrumentality, and how does it do this?
- Does it sell products and how does that relate to its overt aims?
- What sorts of educational services does it make available - to whom and how?
- Does it create an environment for self-directed learning - for whom and how?
- Does it 'sell' the institution as a public service - to whom and how?
- Does it construct an authoritative identity - to whom and how?

These questions lead us to the function and practice of the web site and enable us to make some judgments about the textual strategies used at the site. So, if we take as a case study, the web site of the National Museum of Australia we can start to unpack the meanings offered by the choice of textual strategies and by the links it makes available.

ii. Analysis of textual strategies

Analysing the textual strategies on a web page is a very complex task as there are so many different choices and different combinations of choices available to designers. My study, *MultiMedia* (2005) is entirely devoted to the exploration of these choices - what they mean within a western cultural context (with its specific history of meaning-making) and the kinds of theories we can use to explore their derivation and significance. For the purposes of this study I am limiting the description of textual strategies to key features, which I shall then refer to the case study. In summary they are:

- Writing: language density, font, size, colour
- Visuals: colour, images, layout, style
- Sound: pitch, timbre, melody, spatiality, connection
- Movement: trajectory, as information
- Spatiality: metaphoric, physical, memory
- Connection: (user)subjectivity

Referring these properties to the current (4 May 2006) version of the home page of the National Museum of Australia web site (www.nma.gov.au) we might make some preliminary observations.

The language used on the Home page is simple, direct, and accessible to most (English-speaking) users; there are very few complex terms, no jargon or technical terminology. The most difficult expressions are the culturally specific metaphors, 'People of the Cedar' and 'A Summer of Cricket', the former referring to an exhibition of art works by First Nations peoples of Canada (People of the Cedar) and the latter to an exhibition about the summer sport of cricket in

Australia (as depicted on stamps). In terms of language, then, the site seems to offer no impediment to most English speakers; even quite young visitors (school children) would find most of the language accessible.

The typeface chosen for the site is a sans-serif font; a font without ornamentation (small strokes at the end of the main stroke) on each letter¹. This type of font is usually read as modern, direct and less formal than the decorative serif fonts - something like the contrast between copperplate handwriting and printing. Serif fonts are widely considered to be particularly appropriate to longer texts, like books and articles, because they are considered easier to read in large sections (though like everything in design, there are differing views). Sans serif fonts are considered appropriate for shorter texts where they attract the eye and engage readers boldly and directly. The sans serif font on the NMA page, then, can be seen as an attempt to engage directly and openly with the user by the site and its source, the NMA. An alternative approach would use the formal quality of a serif font to position the user or visitor as subordinate to the site and its source, and reinforce the authority (or authoritarian-ness) of both site and source.

¹There are now a number of useful books available that discuss the meanings of fonts and other aspects of typeface design: see, for example, Heller 1997, 2001, 2002. See also the special issue of the journal, *Visual Communication* on "The New Typography", edited by Triggs (2005).

The font also uses colour in strategic ways. Most of the font is black on white or white on black - familiar to viewers from most of the texts they encounter. However, in a couple of instances colour is used: the word, 'Canberra' which appears in the Museum logo (top left of page) is ochre/orange, as is the word 'Explore', which appears almost centre screen. The colour of the font links the two words, while the size of the word, Explore - it is the largest word on the screen - locates it as central to the project of visiting the web site (and by implication, the museum). So Canberra, too, is linked to the project of exploring the web site (and museum) and all of the meanings it articulates - whether or not the user ever physically visits the museum.

This can also be seen as central to the political project of a national museum, which is the exploration and representation of national identity. For Australians, if not for all international visitors, Canberra is identified as the seat of government. Exploring Canberra is, therefore, not simply a tourist venture; it is an exploration of the nature of Australia as a western society. So it is also significant that 'Canberra' and 'Explore' are coloured ochre, which refers not only to the colour of Australian soil, but also to Australian indigenous cultures (whose art work and ceremonials traditionally use ochre dyes). The implication here is that no

exploration of Australian identity can take place without recognition of the primary status of indigenous cultures.

The visuals on the site continue this engagement with Australian identity. The site uses oranges (ochre), along with saturated blues and reds in large blocks to create a very bold, contemporary 'look', which simultaneously references the colours of Australian soil, sky and sea. The use of orange/ochre again refers to Indigenous Australia and visually problematizes the definition of Australian-ness, which is necessarily the major focus of a 'National' museum.

Another reading of this use of blocky saturated colour is that it attracts the attention of viewers/users. In interviews with curators at the NMA I was told of the views of the American designers who worked on the exhibitions of the NMA (the design tender was awarded to Anway, an American company), amongst which was the notion that primary colours are important in design as they attract the attention of the public². The Australian curators were skeptical and wondered about the cultural specificity of this judgment; perhaps they only attract the attention of the American public? On web sites saturated colour retains many of the meanings it has in non-web texts: it is associated with children (especially when

² In these discussions the curators discussed the political intervention in the development of the exhibitions, the design tender that precluded Australian companies because of its financial penalties, as well as the parochialism of American designers who assumed that aesthetics were universal, not culturally-specific.

primary colours are involved) and with controversial subjects or issues. In a sense the physical excitation of the molecules in saturated colours is reflected in and by their use with high-energy issues and/or for high-energy users (such as children). Overall we might agree that the site projects a high-energy engagement with users; there is nothing here of the staid authoritarianism of traditional institutional texts, conventionally expressed (at least since the nineteenth-century in western societies) by the use of dark somber colours (grey, navy blue). It may be that this use of colour on the web site of an iconic Australian institution will seem to some (politically and socially conservative) users to be inappropriate - not sufficiently authoritative or serious. For others, however, it may represent a welcome demystification of the institution and its role. It may even enable engagement with the museum and its ideas to those who might otherwise have considered it too conservative or old-fashioned or authoritarian.

Another visual element that identifies the museum and its web site as Australian is the use of shapes. The top right hand quadrant of the site reproduces a section of the building in such a way that it recalls Uluru, which was a referent for the architects. The ochre and blue of this shape also recalls the location of Uluru - the great red rock against a brilliant blue sky. The uneven horizontal line that underlines this

image and traverses the page (more on this later) also has a geographical and cultural referent in the softly undulating line of the ancient, weathered Australian landscape. This reference is underscored by the use of orange/ochre that simulates the colour of Australian soil with which most Australians, even confirmed urban-dwellers, tend to identify. This is often an unproblematic - and unproblematised - identification for many non-indigenous Australians, yet it necessarily also raises the issue of land and its ownership or custodianship, and, therefore, the relationship between indigenous and non-indigenous Australians.

Another 'shape' on the page is the Museum logo - an erect twisting spiral, which most obviously refers to the orange and black covered walkway that the visitor encounters when physically approaching the NMA. It has been interpreted as a visual interpretation of Australian landscape, like the undulating horizontal on the web page. For some visitors this walkway, so possibly also this spiral, have a fairground reference that is indicative of the postmodern architecture of the site - which some like and others do not. The spiral also recalls the Boolean knot that is the central architectural motif of the building (Raggatt, 2005) and is used to articulate the spiritual journey on which such an institution (and its visitors) is engaged.

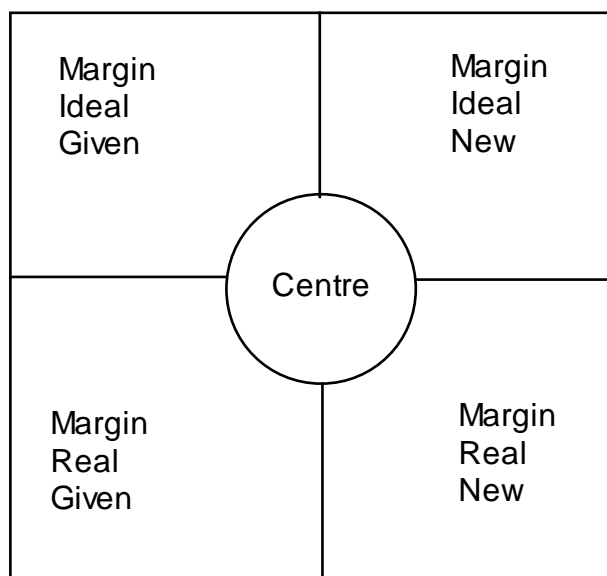
The other striking shapes are the circular frames containing images that adjoin the History Browser, and which pop up on the page when it is first opened. These shapes are very like the click-wheel of an iPod, which may be an implicit reference. As such they would have particular relevance for the Generation X, Y (and Z) visitors who are represented by the smiling couple in the image above.

Most of the other images on the site feature people engaged in activities, most prominently the happy young couple at top right walking away from the museum. This couple can be read as a heteronormative referent, which places the museum's advertisement of its own constituency in line with that of most other advertising: youthful, heterosexual couple with possible mixed ethnicity (though this is quite understated). This pair could be in a Coca-Cola advertisement. They give the museum an updated image; this is not the fussy institution associated with school trips and pensioner outings, but a place that Gen X and Y are happy to visit.

The other images of people are in the monochrome picture links to different activities, where they confirm that the museum is indeed a 'people place' not just a repository of old things. Even so, neither the people in these snapshots, nor the happy couple, gaze directly at the viewer/user; there is no eye contact. This creates distance between user and museum/web

site, which may reflect something of the detached or scholarly relationship assumed between the museum and its visitors. That is, while visitors or users are encouraged to engage with the museum and its web site, the relationship is nevertheless that of educator to student. (By contrast, consider a web site such as that of Obese Records mentioned above, where artists are generally pictured gazing directly and boldly at visitors to the site; or the smiling images often used to invite people into service-oriented sites.)

Another major element of any visual design is layout, how the different parts of the visual image are arranged in relation to one another - like the *misé-en-scene* of a movie. In order to explore the layout I have used the layout diagram developed by Gunther Kress and Theo van Leeuwen in their book, *Reading Images* (1996).



Based on Kress and van Leeuwen, *Reading Images* (1996)

In this diagram, which maps the layout choices within contemporary Western visual culture, the Centre is the place of most prominence or salience. In designs with a central element, we need to make special note of what is placed in this position. Kress and van Leeuwen also divide the layout into four quadrants, with different properties assigned to left-hand and right-hand positioning, and to top and bottom positioning. So elements that appear in the left-hand side of the layout (Given) are conventionally elements that are familiar or known to the viewer - either in the particular or in the essence of the idea they represent. The elements on the right-hand side (New) tend to be unfamiliar or new - again either in the particular or in the idea they represent. Kress and van Leeuwen note that this layout is culturally-specific and that it maps the most conventional arrangement of materials - which means that it can be used differently and innovatively to present ideas differently. So someone may want to present a new or innovative idea but not have the viewer confronted with its newness. Placing it in the left-hand side of the layout performs a visual sleight-of-hand where the viewer is led to assume that he or she must already know this (or has simply overlooked it) because it is in the position of 'given'. Similarly, a familiar idea or object may be given a new or different look by placing it in the right-hand side of the layout. Kress and van Leeuwen also divide the layout into top and bottom, where top is the place of the 'Ideal' - the

essence of an idea or object - and bottom is the place of the 'Real' - its everyday or material realization. This is also a culturally-specific mode of visualization, and again it can be used in subversive ways by the designer or composer of a visual layout to create meanings.

Applying this layout diagram to the NMA home page we find there is a centre focus, which is on the word 'Explore'. We have already discussed the prominence of this word created by its size and colour; its position in the layout confirms that 'Explore' is to be seen as a major activity for users at the NMA web site. The most obvious objects of this exploration are "Australia's Land. Nation. People." - as spelled out in the adjoining words, which are also the organizing terms for the museum exhibitions. By preceding these words with the invitation/imperative 'Explore' the site constructs the relationship between itself (and the museum) and visitors as active and engaged. The link boxes that flank the word, 'Explore' can then be read as its visual explanation or definition: Collections, Exhibitions, Events and Bookings, Get Involved, Play, Behind the Scenes. So the layout of the web site invites users to explore Australia's Land, Nation and People through a series of activities that are located at the NMA web site.

As viewed at 4 May, 2006 the top left quadrant (Given, Ideal) announces a new journal, *reCollections: Journal of the National Museum of Australia*. In this position the announcement achieves several aims. Firstly, it advertises this new journal as a function of the museum, establishing the institution's scholarly credentials. Secondly, by placing the announcement in the left-hand side the web site identifies scholarly activity as an assumed or 'given' feature of the museum, not as something new to its 'essence'. Thirdly, it completes the identification of this scholarly essence with the museum by tucking the announcement underneath the words 'National Museum of Australia Canberra' and the icon/logo of the museum.

On 4 May, 2006 the bottom left-hand side of the page contained several announcements in its 'On Today' section: *Exiles and Emigrants: Epic Journeys to Australia in the Victorian Era*; *People of the Cedar*; *A Summer of Cricket*. Placing the 'On Today' section - and Links to other pages on the site (bottom right) - in the bottom segment of the page, with the Museum name and logo, and the physical image of the NMA, in the top section of the page visually creates a very interesting argument: that the essence or Ideal of the site is the Museum and the exhibitions (along with the ideas they articulate) are the Real. On the one hand, that confirms that the site's principal function is to promote the NMA. However, it also

constructs the exhibitions and the ideas they present as realizations of the Museum. In other words, it implicitly deconstructs the practice of the museum (any museum), which is to create (not record) the ideas and meanings it presents to the public.

Placing 'On Today', 'Search', 'Calendar' and 'Shop' links in bottom left identifies them as 'Given Real'; that is, as elements we would expect to find on the site (and at the Museum), which are also part of its everyday reality. Which is that it must attract and maintain a visitor base that will regularly visit the site (hence "On Today" and "Calendar"), to which it will sell products to help finance the museum ("Shop") and which it will entertain and/or educate ("Search"). At bottom right is the History Browser link, with a series of related links embedded in circular frames containing images of places and people associated with historical events. So the History Browser and its links are constructed as 'New Real': that is, the 'history' found at these links is a new realization of the museum as an institution - a statement of the role of the institution. However, as noted earlier, it is also an interesting deconstruction of what is meant here by 'history', which might be considered by some as the essence of which the museum is a realization, rather than vice-versa. This suggests further that 'history' is interpreted here not as a dialogue or a

theory or a set of legitimating practices, but as a set of facts that are the everyday reality that realizes the museum. Which seems to be how the government believes the museum should act - the museum determines what is history, not vice-versa - a notion that many historians and curators contest.

So the layout of the page creates a complex set of meanings, which essentially is the set of problematics in which contemporary museums are embedded. These include debates about the nature of history and the role of the museum as a public institution; the relationship between indigenous and non-indigenous peoples; the relationship between public and private funding of public services and institutions; the relationship between entertainment and education; the role of government in relation to educational content.

Sound also plays a major role in meaning-making in any text in which it operates, including web sites. The NMA does not use sound on this site - and it must be said that, given the limited bandwidth available to many Australian users, this is a very practical strategy. If users do not have sufficient bandwidth to receive sound effectively on a web site, then the halting, poorly realized sound text is more distracting and annoying than entertaining or educational. However, this is primarily a technical issue and many sites do use sound, despite the limitations for users - and many more will do so in the

future, when the (distribution) technology improves.

MultiMedia (2005) includes a chapter on 'Sound' that describes many of the ways in which sound creates meanings for users and listeners, and explores some of the theories used to understand the cultural significance of different kinds of sound, including voice, music, sound effects, ambient sound and the soundscape itself³.

Another meaning system found on many sites is movement, which includes elements on the page that physically move as well as trajectories that prompt the user's eye to move in particular ways around the page. On the NMA Home page the links accompanying the History Browser at bottom right move; they bob like bubbles when the user moves the cursor over them. This might seem a whimsical touch, except that it caused my computer to crash every time I tried to access them. This may be a platform problem (Mac versus PC) or it may be the limitations of the computer I am using, but it was very annoying - especially when I once lost quite a lot of work. So it is important to note once again that there are practical considerations that may limit the choice to use certain meaning-making practices on/at a site.

³ See also my paper, "Mapping cultural auracy: the sonic politics of *The Day the Earth Stood Still*" in *Social Semiotics* (forthcoming) for a more focused attempt to develop a methodology for studying sound in specific contexts.

The likely referents for the links are the computer games that are popular with many people, though primarily children and men. The click wheel visual referent, combined with their erratic movement, recalls many of the simple games that were first developed for digital technologies and still are found on mobile phones, which are a major technology in the lives of children and teenagers. So this movement seems less related to the content of the links than to making them accessible and entertaining for users.

The page has many prominent trajectories, including a horizontal vector traced by the undulating ochre line that traverses the page, and several vertical vectors created by blocks of colour. The horizontal vector signifies an ongoing, if not continual (non-dialogic), narrative. That is, the progress narrative that characterizes bourgeois western societies is typically represented as a left-to-right arrow, which we might contrast with the cyclical structures used to characterize non-bourgeois thinking - frequently described as 'non-linear'. This horizontal line, however, varies in width, moves up and down, and in places resolves into a series of pixelations that recall the dots on indigenous paintings - a reference confirmed by the ochre colour of the line. In this way the trajectory of Australia's Land, Nation and People is shown to be not a simple progress narrative - often identified with colonialist thinking - but a complex and dialogic

narrative that involves different stories and different histories, including most importantly the indigenous narratives that offer a very different version of Australian history.

The page also has a strong top-down trajectory, created by the red block or wedge at left that narrows from top to bottom, which is reinforced by the congruent blue wedge in the adjacent architectural image. The top-down trajectory is a conventional representation in western cultures of the notion of realization: the essence or idea that is made concrete in the everyday. This is echoed in Christian theology in the relationship between God and humanity, familiarly visualized (e.g. in religious art) as a top-down, Heaven above and Earth below, trajectory. This trajectory reproduces conventional western metaphysics, which informs the page layout - and, therefore, the dialogue about the relationship between history, the museum and everyday events discussed earlier.

There are also other trajectories on this page, making it visually 'busy' - especially when the cursor is moved around the page and activates yet other movements. These cursor-activated movements are often towards the user and signal an engagement with the page. The busy-ness of the page, enhanced by the use of adjacent, strong (saturated) colours, has a similar effect to that of the saturated colour blocks

discussed earlier; it makes the page less staid and conservative than might have been expected of an institution such as a museum. For some viewers this may make the web site and its source more accessible; for others it may seem less appropriate. This choice suggests that the NMA is focusing on the need to attract and engage a broad audience, including those most likely to use web sites (younger visitors).

Another way in which movement creates meaning at a web site is through the motion required of the user. This paper does not consider this movement in great detail; however, note the ways in which the user's hand movements are actively part of the process of meaning-making. Moving the cursor around the page and clicking on links constitutes an embodied practice of information gathering that is quite different from that of consulting a physical archive. As educationists have (Hanna, 2001). We might consider how the practice of navigating a site such as this creates a certain kind of embodied learner, while contributing to the development of what sociologists such as Pierre Bourdieu (1990a, 1990b) characterise as a bodily *hexis*, a habit of embodiment that characterises a way of life. So we might consider how the bodily *hexis* of the user of information technology differs from that of earlier learners; how those whose embodiment makes this *hexis* difficult to achieve (through physical disability and/or age) are disadvantaged.

Spatiality is also closely related to the creation of meanings at a text/site. The NMA home page has a lot of free space, even though it is also very colourful and visually complex. In graphic design this is referred to as white space or negative space and is conventionally used to create a sense of opulence; only the wealthy do not have to use all available space. Compare a copy of *Vogue* with a magazine aimed at the lower end of the market, like *Women's Weekly* - or an up-market lifestyle magazine like *Vogue Living* or *Inside Out* with a lower end version such as *Home Beautiful*. One of the major differences is that the lower-end magazines pack as much copy (including as much advertising) as possible into their pages, so have very little white space. Their crowded pages are informed by an aesthetic (created by economic necessity) that visually articulates their socio-economic positioning. The aesthetic of the upmarket magazines, which is characterized by white space, is also a visual articulation of their (higher) social, cultural and economic status.

On the NMA home page the white space mediates the busy-ness of other aspects of the design, so that the page is not crowded. This identifies the site as of high social, cultural and economic status, which implicitly supports its claim to be an authoritative source of information and education. To be explicit, authority is associated in western societies with high social and cultural (and economic) status, which in turn

is associated with particular aesthetics ('taste'); the NMA web page uses this association to establish its credentials as a valid and authoritative source of information for users.

Another spatial element that is associated with authority is the border or boundary. On the NMA home page the use of saturated colour creates strong boundaries between the text elements (verbal, visual, dynamic) that constitute space on this page. (And here I am referring to the contemporary understanding of space not as an emptiness to be filled, but as created by the placement of objects and events (Woodhead, 1995). Just as authorial interventions in a verbal text such as paragraphing, sub-headings and position the reader to make particular readings, so this strongly demarcated positioning of objects on the page can be seen as scaffolding its information for users. The links on the page (discussed further below) are another kind of boundary-marking, which we see visually articulated in these marked borders that work against dialogue in a text, instead leading the user to the activities and ways of thinking sanctioned at the site.

Spatially, then, the NMA home page is contradictory, exhibiting both white space and marked borders - where the white space (signifying authority) also allows users some space to move about the page, in accordance with the individualist ideology that is identified with that bourgeois

aesthetic, while the marked borders work to contain that movement. This spatiality can be read as signifying the ideological plight of this museum, caught between its liberal, progressive views that engage with multiple viewpoints and welcome the problematization of earlier ideas and practices, and the demands made upon it to present a conservative, even authoritarian, version of Australian history and identity that silences debate in favour of a particular political construction of Australia's past (mono-cultural; repressive of foundational conflicts, including the violent history of white society; rich in myth creation (mateship, glory in World War I)). The ambiguous spatiality of its home page - and the busy-ness of its trajectories - articulate the complexity of the site's and the museum's social, cultural and political roles.

Connection is another, related feature of the text's meaning-making practice and is explored further when we trace the links offered by the page. However, we can begin this study by considering how using a web site connects the visitor into a particular community, created at the site, as well as into the community of IT users. At the web page, this means the visitor is subject to (and created as a subject by her/his negotiation of) the ideas, beliefs and values articulated at the site, which, as we have seen, are often complex and sometimes contradictory. This is particularly important when we consider

how open the internet is to a wide range of audiences. So we might consider the power of this authoritative site - which represents (and articulates) the nation of Australia - to influence the lives (thoughts, feelings, being) of indigenous and non-indigenous Australians, children and adults, as well as international visitors who have little context for what they find on the site.

Social and cultural context

This brings us to the consideration of social and cultural context that is another major part of the textual analysis. There are at least two sets of cultures involved in the production of meanings at the web page: the cultures of users and the cultures of the source. The users here include all those who might access the site, for a range of purposes: indigenous users looking at how their cultures are represented at this national institution, children doing school projects, interested amateur historians exploring Australian history or their own family history, professional historians, anthropologists, museologists (liberal humanist, postmodern), researchers in a range of fields (such as cultural studies, media, visual culture, education, politics, architecture), government representatives, international tourists, and many more. In each case we can explore what these visitors might make of this site: how their multiple literacies might make the site more or less accessible and, therefore, meaningful

for them. We have already considered some of these cultures, of course, as we mapped the accessibility and appeal of particular textual elements. At this point we can consider each of these audiences in turn and reiterate the analysis of textual elements. That is, with a more complex understanding of the site what might the site mean to an indigenous child user? To an indigenous adult user? To a non-indigenous child of European origins whose family has been in Australia for many generations? And to one whose family has only recently arrived? To the child whose family origins are Asian? To an historian with conservative political views? And to one who has a more dialogic understanding of historical practice? To a government representative?

This is a complex analysis that involves research and analysis of the needs and desires, as well as the literacies, of particular user cultures. Some of these cultures will be more accessible to us than others - more familiar and easier to predict. And we can use our understandings of the many other cultures (television, film, music, politics, popular history) within which both users and the site are embedded to understand many of the meanings that are accessible to particular cultures at the site. However, we may also need to do specific research into the needs, desires and literacies of some of these user groups to understand how the site may work

for them; what meanings it may make - whether they feel included or excluded from the site and its meanings.

The cultures of the source also need research, particularly when dealing with a major institutional site such as a museum - because those cultures are inevitably articulated in the choices made in the design of the site. Any representation of a person or organization or event is a choice or set of choices, which is based on a series of social, cultural, political and economic factors. Each of those choices tells us something about the person or organization or event represented. For example, an individual can be represented visually by a photograph taken by someone close, by a portrait photographer, on film, by an artist in oils. Each of those choices, placed in context, says something about the cultural background and contemporary positioning of the subject; her or his social status; and her/his economic standing. A portrait in oils is not a possibility for most people, unless there is an artist in the family - or unless the subject has a special reason for that choice and saves the money to have it done, in which case that, too, is a very significant choice. (And note that this is why the choice has to be placed in context in order to be understood and analysed effectively; it isn't possible to map assumptions crudely on the basis of class or socio-economic categories). In this latter case, we need to understand what it is in a subject's class, ethnic or

educational (or other) cultures that makes the idea of an oil portrait attractive. In order to understand the web page a similar analysis can be made, which includes the coordination of semiotic choices with cultural positionings (with all the background research involved in that assessment).

Site information architecture

In this analysis I have described the information architecture in terms of two different sets of links: the hypertext links that characterise the digital medium and may lead the user to other pages on the same site or to other sites altogether; and the (inter)textual links that are typical of all texts. Many of the (inter)textual links are located by the generic and semiotic analyses discussed earlier - and would not be conventionally regarded as 'information architecture'⁴. However, it is worth using this opportunity to re-situate the site in relation to other texts, particularly once the preliminary semiotic analysis has been performed. We might, for example, compare the home page of the NMA with that of other museums in Australia, such as the Australian Museum in Sydney or Museum Victoria in Melbourne, in order to explore what characterises it as a 'national' rather than state/regional museum? And we might compare it with museums such as the Museum of Migration in Adelaide and the

⁴ Some technicians would balk at the equation of information architecture with hypertext links, regarding it as the coding structure that generates the links. For purposes of cultural analysis, however, it is more effective to discuss the actual links themselves and how they position users.

Immigration Museum in Melbourne to understand how it differs from special interest museums (especially as it also addresses the interests of those museums). Further the NMA home page might be compared with the home pages of other national museums, like the British Museum, the Beaubourg in Paris or the Smithsonian Museums in Washington, in order to explore how the NMA is identified specifically as Australian. In all cases the identification of semiotic practice at the site is crucial to this exploration, and will also be informed by it. That is, recognising that the web page needs to identify the NMA as representative of Australia illuminates many of the semiotic choices made at the site - and vice-versa.

The hypertext links, more properly identified as information architecture, are equally revealing as they map the logic that underlies (aspects of) the site. This means considering the links internal and external to the site. On the NMA home page on 4 May, 2006 the most prominent internal links were:

- Banner links: Visit, Collections, Exhibitions, Events and Bookings, Get Involved, Play, Behind the Scenes
- History Browser: on 4 May, 2006 the links were about convicts coming to Australia as part of British settlement
- On Today: links to events at the NMA that day, which on 4 May, 2006 included Exiles and Emigrants: Epic Journeys

to Australia in the Victorian Era, People of the Cedar,
and A Summer of Cricket.

The banner links direct visitors to a wide range of activities and information and so constitutes the NMA as a public institution with a range of audiences - local and (inter)national, visitors and members, children and adult, viewers and participants. The History browser with its (4/5/06) focus on convicts echoes the Howard government's preoccupation with a particular history of Australia, which is reinforced by the compositional positioning of the link (as discussed earlier). While the On Today link articulates a set of typical Australian preoccupations including 19th century English immigration to Australia, indigenous experience, here safely from somewhere else (Canada) and sport - a collection that echoes the (populist) performance of more than one Australian prime minister, and particularly the current incumbent.

It should be noted, however, that this is a changing set of events: a few days later the 'Exiles' notice was replaced by a link to the monthly meeting of the Indigenous Autobiography group. This set of events maps rather differently, with a marked focus on indigenous experience, in Australia and in Canada. Again this serves to underline the complex of discourses (social, cultural and political interests) in which the NMA is enmeshed. So by exploring the hypertext links

within the site we can identify the constantly renegotiated set of values, ideas and beliefs that inform the site and characterize the museum.

The links to other sites are equally informative about the values of a site. Consider, for example, the ways in which individuals choose to link their sites to other sites; their choices read as a compendium of their interests and values. The NMA home page is interesting in that it has no links to other sites. So, for example, there is no link to organizations such as AIATSIS that could speak an indigenous perspective, or to other museums or organizations that might have a different perspective on some of the interests explored at the site. This may be a strategy to reinforce the authority of this site as a source of information about "Australia's Land. Nation. People." It may also be a way of avoiding charges of bias that could (would) be generated by links to any other organization or institution. And it may be a way of keeping visitors at the site; given that any move outside a site often leads a user to yet other sites, and tends to work against their return to the original site. So there are a number of possible reasons for the decision not to provide outside links, deriving from the different needs and imperatives affecting the NMA including the need to be seen as an authoritative, non-biased institution (cultural, social and political demands) and to retain its visitors once they enter

the site (financial, cultural). If we compare this information architecture to that of other museum sites (e.g. the British Museum), we find that it is not atypical - for many of the same reasons.

Locating the text

Having discussed these many ways in which the web site makes meanings - and noting that the same analysis used on the home page can be applied to every page on the site - we can finally locate the site within the matrix of influences discussed at the beginning of the paper, which form the context of its practice. And again, as noted earlier, this is an iterative practice that enables the analyst to review the judgments made about elements of the web site in light of accumulating layers of research and information about the site, its source and its users.

Summarizing this analysis with respect to the NMA site:

- Textual strategies: these have been discussed in some detail in relation to the home page, where they reveal the complex of meanings and demands within which the site (like the museum) is enmeshed
- Web site (sub)genre: locating the genre as a museum web site enables us to compare the NMA site with other museum sites, and so specify how it operates as a specifically 'national' and 'Australian' web site

- History of representation, product information: locating the history of representation of the museum as a major public institution enabled is to understand how this site (like the museum) operates in a new technological era, utilizing digital resources
- History of the museum as an institution: placing the site in relation to the history of the museum enables us to explore how this site (like the museum) responds to the political, cultural and social demands of the present day - including particularly the need by some to acknowledge the constructed nature of 'history' and the complex nature of Australia's cultural narrative(s), including the role of indigenous history
- Users: understanding the nature of museums and their social and cultural roles enables the analyst to predict the kinds of users who are likely to access the web site, which will include many of the people who physically visit museums, but also others who are more likely to visit the site because it is on-line; children accessing the site at school and at home doing homework, potential tourists visiting the site as they plan their trip, amateur historians interested in issues relating to Australian history & identity, indigenous users looking at how indigenous peoples are represented on the site, politicians, journalists, researchers visiting the site

in order to explore its role in the constitution of contemporary Australian identity

- Cultures of users: identifying the users then leads to analysis of their cultures - the kinds of meaning strategies they will understand and appreciate, the sort of ideas and issues they will look for at the site, the ways in which the site might attract or alienate them
- Culture(s) of source: this includes the tangled web of political discourses within which the NMA is enmeshed, as well as the different historical, anthropological and museological discourses that influence its practice
- Context of access: this again refers us to users - their different literacies (is the site accessible to those without much computer literacy?) and different abilities (e.g. is the site accessible to the vision-impaired?)

Spinning the web site: conclusion

In order to understand the spin of a web site, then, we need to draw on a range of skills. Firstly, we need to use our understanding of the semiotic practices deployed in digital media to map the kinds of meanings the text potentially makes available to users. This involves our understanding of the meanings of strategies drawn from other media (e.g. language, colour, layout, sound, movement) and their redeployment for digital media (sometimes referred to as 'remediation' (Bolter and Gruson, 1999)). *MultiMedia: Texts and Contexts* (Cranny-

Francis, 2005) explores these resources and their meanings - and there are now specialist texts in a range of areas attempting to capture the semiotic potential offered via digital media (e.g. sound studies such as *The Auditory Culture Reader* edited by Michael Bull and Les Back (2004) and Theo van Leeuwen's *Speech, Music, Sound* (1999) and the visual culture texts by Kress and van Leeuwen (1996), Mirzoeff (1998, 1999), Sturken and Cartwright (2001) Schirato and Webb (2004)) .

We also need some understanding of the technology itself, not necessarily technical knowledge but an understanding of how users, like (and unlike) ourselves, use digital media. Which also involves an understanding of the consequences for contemporary embodied being of this engagement with technology. This includes research from areas such as cultural studies, cyberculture studies, and multimedia and digital literacy studies and utilizes the work of a range of scholars such as Jean Baudrillard (2001), Paul Virilio (1995, 2000), Donna Haraway (1991, 1997), N. Katherine Kayles (1999, 2002), Bruno Latour (1993, 2003) and Allucquère Roseanne (Sandy) Stone (1995).

We need knowledge of the source of the site, which in this case was the National Museum of Australia. The book, *Tangled Destinies* (2002), edited by Dimitry Reed, collects essays about the NMA, including some essays by those involved in its design

and construction, while many others can be found in newspaper and library archives. Given the controversy in which the NMA has been involved over the last twenty-five years, and especially in the few years since its opening, there is a great deal of material available (see references noted earlier in the paper). The site itself provides an on-line copy of *The National Museum of Australia Act 1980*, which formalized the development of the NMA.

We also need an understanding of the cultures of different on-line visitors to the site. This can be derived from experience and from archival research on specific cultural groups (like Hutchby and Morgan-Ellis's study, *Children, Technology and Culture* (2001)), as well as from research on the nature of audience interactions using texts such as Brooker and Jermyn's *The Audience Studies Reader* (2002), which contains many of the key writings on audience over the last century. There are also many recent texts that deal specifically with user interactions with the internet and its texts, such as Graham Meickle's *Future Active* (2002) and Taylor and Jordan's *Hactivism and Cyberwars* (2004).

Analysing internet texts such as web sites is a complex and demanding task, which draws on whole disciplinary bodies of knowledge, as well as the everyday experience of the researcher. However it is also immensely rewarding as it opens

up the meaning potential of some of the interesting and frequently-accessed texts in our society. In doing so, it also enables us to engage in a range of contemporary debates that are articulated through these texts and gain a new understanding of our own positioning as contemporary social subjects.

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