

# Researching Websites as Social and Cultural Expressions: Methodological Predicaments and a Multimodal Model for Analysis

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## INTRODUCTION

The Internet is a rich resource for researchers in many respects: as a field of study, a research tool and a means for scholarly communication. Several authors have dealt with the implications of using established research methods (survey, focus groups, content analysis, interviewing) in an online mode, or examined the question of how to take advantage of new practices of web users (e.g. chatting, social networking) for studying culture (Paccagnella, 1997; Jones, 1999; Hine, 2000, 2006; Mann and Stewart, 2000; Wakeford, 2000; Weare and Lin, 2000; Lievrouw and Livingstone, 2002; Rossler, 2002; Andrews et al., 2003; Lister et al., 2003; Carter, 2005; Stewart and Williams, 2005). Yet efforts of

researchers to take advantage of the web in each of the three areas are not commensurate with the rapid expansion and impact of the online environment on several aspects of a globalizing society. Furthermore, only some of the many features and aspects of the web appear to have attracted serious attention. Paradoxically, several of the more basic characteristics of the web have been neglected. Most notably, this applies to the exploration of the visual and multimedia features of the web (as opposed to mainly verbal utterances and practices), both as a very significant source of cultural information and as an opportunity for improving the nature and depth of scholarly communications.

In this chapter, I will provide a model for analyzing the visual and multimodal nature

of websites as materialized expressions of culture. The model will be preceded by a discussion of some of the methodological impediments of Internet research – and website research in particular. To illustrate the potential of multimodal website analysis the chapter also includes a separate example of decoding family websites as particularly rich exponents of material culture.

### **ON THE VALUE AND AUTHENTICITY OF COMPUTER-MEDIATED PHENOMENA**

The current discourse about the Internet, and about computer-mediated communications (CMCs), is fortunately moving beyond technological determinism, which views technological innovation as an independent factor that subsequently produces social practices and uses. Technology is, to a large degree, what people make of it in a specific cultural context that is in constant flux and subject to endless redefinition. Each new technology does have specific features or attributes – which came about in response to cultural and social developments, for example perceived needs or institutional constraints; these features facilitate certain uses, and designers will have had specific goals in mind, but users cannot be forced to slavishly agree with these preconceptions and put them into practice. Users may adopt a technological artifact and adapt it to fit their specific needs. While the impact of new communication technologies in the media and in culture at large is still not equaled in empirical research, a growing number of empirical researchers (Springer, 1996; Bassett, 1997; Wynn and Katz, 1997; Cheung, 2000; Hine, 2000; Mann and Stewart, 2000; Miller and Slater, 2000) have gathered evidence of various kinds. This evidence seems to substantiate the conclusion that the so-called virtual world is not so virtual with respect to the majority of uses and users, and that the uses of the Internet are very much dependent on and

linked to a ‘real-life’ context. This conclusion was confirmed in the ESRC Virtual Society (Woolgar and Daw, 2000) study which found clear indications that virtual practices in some cases even tend to reinforce non-virtual (offline) practices (e.g. more online interactions with friends may result in more frequent offline interactions with them as well). Also, these researchers noted the tendency of new technologies to ‘supplement rather than substitute for existing practices and forms of organization’ (Woolgar and Daw, 2000: 5). More recent research in the UK (2009) points at a marked increase in the use of the Internet by a growing and diversified section of the population for communications (primarily email), but also as a central source of information, as a vehicle for social networking (to reinforce ties with family and friends and also to meet new people), as a means for more efficient shopping and banking, for expressing oneself through content production, or for entertainment needs (downloading music and video) (Dutton et al., 2009: 5). So, clearly, there are many complex interactions and connections between offline and online worlds, and both are part of the contemporary social life of an increasing number of people.

Often unmediated or direct forms of interaction are looked upon as more spontaneous, and therefore more ‘truthful’ – because non-verbal behavioral vocal cues are hard to control (looks, nerves, pitch and tone of voice). However, having to cope with a number of immediate and potentially threatening forms of feedback (laughter, judgmental comments, rejection) may just as well lead to a retreat into accepted or evasive forms of behavior rather than to the display of the ‘real’ persona. Deliberate constructs and mediated forms of interaction are not necessarily less significant for studying culture and social life. Some studies even provide evidence for the fact that, in CMCs, the absence of real-life cues – which are so intrinsic a part of face-to-face interaction – tends to help more profound aspects of identity to emerge. Thus, people may reveal more

of their identities and provide more valid information than in face-to-face situations, where their anonymity cannot be secured and where their conduct may be challenged directly (though asynchronous online communication also occasionally produces flame wars and specific forms of 'cyber bullying'). Cyber-psychologists have coined the remarkable 'openness' and freedom of reserve of people on the semi-public space of the Internet, the 'Online Disinhibition Effect' (Suler, 2004). Therefore, a 'disembodied environment' (Mann and Stewart, 2000: 210) like the Internet may have at least as much 'significance' for getting to someone's personal and cultural identity or self as meeting in person.

Identity construction, impression management and conscious self-presentation are common practice in every communicative situation (Goffman, 1959). All forms of communication and interaction have their techniques for identity construction and impression management. None should be taken for granted or dismissed, and all – including the mediated ones – are valid for cultural research.

## ISSUES OF REPRESENTATIVITY AND SAMPLING

When using the web to gain insight into cultures at large, the issue of representativeness is still a highly debated one. Some of the more optimistic authors believe that the web population is no longer predominantly male, highly educated and based in the more affluent parts of the world. Kehoe and Pitkow (1996), for example, observed many years ago that the age of web users was becoming more diverse, that the gender imbalance of the early days was gradually diminishing, and that the web really was coming within the reach of a growing audience worldwide (Lee, 2000: 118). Others still believe that using the Internet as a 'window' on the world continues to be problematic. However, even

the more modest estimates of coverage (distribution and growth rate) note that the Internet is becoming a part of many aspects of different sorts of people's lives (see: <http://www.internetworldstats.com/stats.htm> and <http://www.worldinternetproject.net/>; Mesch and Talmud, 2006; Dutton et al., 2009), and that its technology offers many unique opportunities for research, even in its present phase of development.

Obviously, the issue of the representativeness of the population under study is closely tied to the type of research undertaken and the aims of the research project. In so far as the research is confined to web-related phenomena – for example, corporate websites – or targets populations that are known to have an important web presence (academics, multinational companies, government agencies), there are – at least theoretically – very few problems. Nonetheless, obtaining a 'representative sample' of web-active populations or phenomena (e.g. certain types of websites) is often not easy because the Internet is, for the most part, and despite sophisticated search engines and efforts to add some structure and control to it, an uncharted domain: we don't conclusively know who or what is 'out there'. Obtaining an adequate sample of web phenomena or populations is obviously far more complex than, for instance, sampling – legally registered – citizens within a community. Moreover, changes occur at an exceptional rate: new or radically overhauled sites constantly appear whereas existing websites migrate or 'die' while not being eradicated from cyberspace. The Internet is a huge data repository, but not necessarily a very permanent or predictable one. As Lee comments: 'The diffuse and democratic character of the Internet, the very attributes that make it such a valuable source for information, also make the finding of available information difficult' (2000: 119). The challenges of researching such a dynamic environment as the Internet have been vividly described by McMillan in her article, 'The microscope and the moving target' (2000). Despite all of these difficulties, web-based research does allow types of

cross-national research that before were only feasible for affluent research institutions because of the high costs of travel and the time-consuming nature of such an enterprise. In some instances an Internet-based approach allows researchers to connect with people (e.g. criminals, drug users, people in combat zones or very remote places, or the politically oppressed) – and with their deeply held thoughts and convictions on sensitive issues, which are difficult or impossible to get to in offline situations. As a mainly keyboard-driven medium, the Internet allows further automation of research that is based on ‘verbal’ strategies, such as keyed-in responses (to questionnaires, interviews). The contents of structured questionnaires can, for the most part, be fed directly into statistical software packages, and there is no need for ‘interviews’ to be transcribed by research staff. Obviously, these advantages for the most part don’t apply to the many non-verbal – and potentially significant – features of web content.

### THE TEXTUAL BIAS IN INTERNET RESEARCH

Many years ago, Mann and Stewart proposed that one should think of CMCs as a ‘new kind of discourse’, which they then further characterized as a ‘hybrid showing features of both spoken and written language’ (Mann and Stewart, 2000: 182). Mann and Stewart clearly considered CMC as ‘a mainly text-based medium of research’, but they foresaw a future where ‘miniaturized cameras’ would overcome the struggles some qualitative researchers still had with the disembodied nature of this type of communication (2000: 214). This reintroduction of visual cues (web cameras indeed have now become fairly standard) will certainly, as the authors duly recognize, have an impact on the nature of the communication process itself (2000: 217). While envisioning a less purely text-based environment, Mann and Stewart again

primarily seemed to think about the visual as an ‘extension’ (providing some extra cues) to the mainly verbal environment (email, chat rooms), as in the case of videoconferencing (talking heads in real time). But long before web cams became a fairly common feature of CMC (allowing ‘mediated’ face-to-face interactions in a previously largely disembodied environment), the Internet already had an important visual and multimedia appearance. However, to date, the complex and culturally rich visual and multimedia features of meticulously constructed websites have been largely ignored, or at least seriously underutilized, by social and cultural researchers.

Yet, websites are truly hybrid manifestations of CMCs, combining numerous visual features and cues (photographs, illustrations, typography, layout and design features) with various types of verbal (written and spoken) and non-vocal sonic information (music, noise, sound effects). Clearly, it is not the medium that is mainly text-based, it is the researchers’ focus that for long has been skewed towards written textual aspects of websites. In a sense this is not so surprising given the fact that social scientists are ill-prepared to derive valuable knowledge from sources other than verbal or numeric, and given the fact that virtually no explicit and precise tools exist to guide them in this more inclusive and integrated form of cultural analysis.

### WEBSITES AS CULTURAL CONSTRUCTIONS

Whereas (multimodal aspects of) websites have definitely received far less attention in online research methodology books, they have attracted some more applied research attention. In particular, personal home pages (Chandler, 1998; Cheung, 2000; Dillon and Gushrowski, 2000; Döring, 2002) and institutional websites (Norris, 2001) – notably those of political parties or governmental bodies – have, respectively, been studied as

forms and vehicles of self-presentation, or to assess their democratic or propagandistic character. But often such studies have rested on a rather limited operationalization of the phenomenon under study (e.g. 'more links' means 'more democratic'), or demonstrated a preference for mainly verbal indicators and rarely ventured beyond a purely descriptive level (listing typical categories of content, such as biographies and their potential role in identity construction).

However in recent years, research has gradually become more focused on addressing the cultural dimension of websites as expressed in various aspects of their content and form (Badre and Laskowski, 2000; Barber and Badre, 2000; Luna et al., 2002; Okazaki and Rivas, 2002; Zhao et al., 2003; Cyr and Trevor-Smith, 2004; Barnett and Sung, 2005; Callahan, 2005; Singh et al., 2005; Fletcher, 2006; Würtz, 2006; Donker-Kuijer et al., 2008). However, as yet, these efforts have not produced more or less integrated models for (cultural) analysis. Moreover, the analyses of cultural dimensions in websites are very often based on Hofstede's (2001) extremely popular (Sondergaard, 1994; Kirkman et al., 2006) but contested (McSweeney, 2002) conceptualization of culture, and primarily focused on scoring websites against Hofstede's (2001) five dimensions (Power Distance, Individualism, Masculinity, Uncertainty Avoidance and Long-Term Orientation) and on developing and stimulating culturally 'appropriate' website practices, rather than on decoding websites as cultural resources.

The online environment in the form of websites uses many expressive means and calls upon many specialized decoding capabilities; it is therefore most remarkable that the textual bias is replicated even in website analysis. When researching websites, clearly one is looking at contemporary forms of 'material culture' rather than at human behavior as it unfolds in interaction (unless there are webcams to provide more fleeting and possibly unplanned visual accounts of behavior, or chat room interaction, which provides

another more or less dynamic version of (verbal) behavior). But even as relatively 'static' cultural products they provide much potentially significant material, a large part of which, in turn, is not available in 'real-life' (better: offline) situations. Therefore, the problem is not so much that web researchers are forced to work in an environment devoid of sufficient social and cultural cues, which is the old view of CMCs – namely, that it is necessarily a 'poorer' form of communication than face-to-face interaction. Given that most researchers are not trained to make sense of the hybrid features of this medium, they may feel swamped by so much promising data, so that they hardly know where and how to begin.

Furthermore, studying online phenomena should not be seen as an alternative to more direct forms of fieldwork, but as a contemporary complement to it. Whereas modes of CMC in general may be chosen because they are felt to be 'safer' than a direct confrontation with a possibly judgmental audience, this 'advantage' applies even more to websites than it does to other electronically mediated, but still more or less, 'confrontational' environments, like online discussion groups. Even when website owners allow or prompt reactions from visitors in guest books or special feedback areas, they retain the power to censor comments by making them invisible to others, or by deleting or changing parts of the feedback. These 'safety measures' may further contribute to the often amazingly high degree of disclosure one may encounter in the more personal or private types of website, such as personal home pages and family websites (Pauwels, 2008a).

'Identity play' (adopting another 'persona' or altering parts of one's persona by pretending to be of another sex, age, culture or profession) is much less a practical option in (private or institutional) websites than it is in purely verbal online forms of communication (MUD environments or discussion lists) where the participants enjoy (visual) anonymity. But even with respect to those electronic environments with hardly any social

cues, which thus provide ample opportunity to fake or pretend, several authors have concluded that, in general, there is little evidence of what Baym rightly called the ‘academic fascination with online identity play’ (Baym 1998, in Hine, 2000: 119). Deliberate identity construction – trying to present a particular, most often polished, image of oneself, not by telling blatant lies but by offering a selective amount of information – is a standard practice in most forms of human exchange, only the means and degree may differ according to medium, purpose and circumstance. Furthermore, these ‘constructions’ are themselves very significant online phenomena that belong to social and cultural life in the broader sense, and for that reason are worthy of much (more) academic attention. They do not necessarily need to be fully validated by present ‘real-life realities’ but sometimes should be considered as reflections of the aspirations or desires of their creators (Pauwels, 2002). In general, they are not to be regarded as smokescreens or obstacles, obscuring insight into the social and cultural world of their producers.

Many books have been published about how to create and evaluate websites, including most of their multimedia features (e.g. Van Duyne et al., 2006; McNeil, 2008). Several of these works are a valuable resource for online researchers to learn more about the culture that is evolving around the Internet, and to learn some basic principles of good communication within this specific medium (e.g. the do’s and don’ts of website design). However, as most of these books were written from a business communications, commercial or technical perspective, they offer researchers little from a cultural perspective. The crucial point for the cultural researcher is not to find out whether the websites being studied meet a number of predefined commercial or communications ‘best practice’ criteria, but to develop an approach that focuses on how the numerous potentially significant features of a website can be decoded as expressions of culture, thus offering unique insights into values, norms, opinions, expectations and

aspirations of groups of people. In this respect, an amateurishly or unconventionally constructed website that seems to break all the rules of good design and communication may sometimes be much more valuable – while revealing more about the culture(s) of its producer(s) – than one that uses a predefined template and flawlessly emulates all the tricks of the trade.

Several years ago I described the cultural decoding of websites as:

an eclectic, multidimensional and integrated search for explicit and implicit statements on cultural issues, such as values, norms and opinions regarding gender, class, race, religion, the state, etc., as they are intentionally or unintentionally expressed and materialized in the many features of this highly hybrid medium (Pauwels, 2005: 609).

My ‘Model for Hybrid Cultural Analysis of Websites’ (Pauwels, 2005) served as the basis for a new – more refined and expanded – model, which I will briefly discuss and illustrate (see the boxed insert: ‘Decoding family websites as a cultural resource’) in the remainder of this chapter. A more elaborate description and application of this framework will be presented in a future publication.

## A MULTIMODAL MODEL FOR ANALYZING WEBSITES AS SOCIAL AND CULTURAL STATEMENTS

The revised and expanded model for analyzing websites as social and cultural data sources consists of six phases that correspond to a certain logic of discovery: from looking at rather immediately manifest features and performing straightforward measurements (phase 2) to more in-depth interpretations of the constituting elements and their intricate relations. The research thus migrates from fairly easy to quantify and code data, to more interpretative analysis focused on discovering the metaphorical and symbolic dimensions of websites or to unraveling their intended and even unintended meanings.

I will briefly discuss each phase of the framework (Figure 29.1) and suggest its possible significance for disclosing websites as material expressions of culture. The literature references at the bottom of each phase do not refer to the source of the text but are intended to direct the reader to further study of the aspects covered.

### ***1. Preservation of first impressions and reactions***

This first phase precedes in fact the actual analysis. It is aimed at retaining the first general impression of the website before the researcher's initial reactions are possibly eradicated or supplanted by further, more in-depth research insights. In this initial phase researchers will try to make an instant assessment of the website in terms of 'look and feel', their first impression with respect to genre and purpose. They should also note down their affective reactions: whether they are attracted to the web presentation, or intrigued by some features, what they immediately don't seem to like about it, what puzzles them, etc. This knowledge is important to feed a reflexive attitude: i.e. the conscious reception of a website as a 'meeting of cultures' between producers, intended audiences and researchers. Reflexivity should continue during the whole research cycle to better understand others people's reactions to it: those who, typically, have not meticulously studied the website.

### ***2. Inventory of salient features and topics***

In this phase, researchers concentrate on collecting and categorizing present and absent features and topics of the websites in their chosen sample. This involves making an inventory of website features and attributes (e.g. the use of graphs and tables, the presence of web cams, feedback areas) that are present, and an inventory of main content categories

and topics (e.g. 'news', 'about us', 'photo gallery', 'products'). These features and attributes can then be counted (or measured) and put into significant categories steered by theoretical insights or a hypothesis.

In addition to listing, counting and clustering the salient elements that are present, it is also useful to perform a 'negative' analysis: that is to pay attention to those items, aspects or events that are 'meaningfully absent' (i.e. in a way 'expected' or forming part and parcel of the cultural reality the website refers to, or the genre the website seems to subscribe to). Absent topics and features or 'omissions' may be as culturally significant as the present ones in that they may point to cultural taboos, or implicit values and norms.

What is significant or not in this regard may require both deliberation and specific knowledge of the genre and the broader culture under study. Also, this assessment will be guided by the specific research interest. But all in all, this phase entails a rather straightforward and fairly easy-to-quantify approach yielding a first basic set of indications regarding functions, purposes, genre conformity, affiliations and opinions, expressed in the selected websites. This phase is well-adapted for large-scale research using standardized coding sheets by different coders, since it requires minimal interpretation and is limited to a primarily denotative reading of the content and form. Even some forms of 'automated data gathering' may be possible (detection and counting of terms and words as in manifest content analysis, text analysis) (Bauer and Scharl, 2000; Bell, 2001).

### ***3. In-depth analysis of content and formal choices***

While the preceding phases yield some basic insights, the central and no doubt most encompassing third phase proposes to first look at the potential information that resides in the separate modes (intra-modal analysis) and then to look at the complex forms of

interplay between the different modes (cross-modal analysis). In an actual research project these phases may be combined at some points, as meaning is often produced by the interplay of expressive systems, yet it remains useful to devote separate attention to the specific signifiers within each of the modes and sub-modes with respect to their cultural connotations.

### *3.1 Intra-modal analysis (fixed/static and moving/dynamic elements)*

**3.1.1 Verbal/written signifiers** In this sub-phase, research is focused on analyzing potential culturally specific meanings that reside in the explicit and implicit content of the written utterances (e.g. opinions, propositions, descriptions) as well as in the stylistic features of the written language parts and their possible meaning/effect in a broad sense (syntactic, semantic and pragmatic aspects). The content can be analyzed in terms of topics and issues that are being dealt with and the expressed positions vis-à-vis these issues and topics: opinions, value statements (e.g. politically, corporate, family oriented), forms and degree of self-disclosure, etc. With respect to style the analyst may look at such things as word register/lexicon, forms of address, use of first-person singular or plural or impersonal, temporal orientation, gendered statements, use of metaphors, rhetoric and narrative strategies, humor, connotative meanings, use of abbreviations, redundancy, use of paralanguage (emoticons), and to numerous other language variations and choices that may potentially reveal useful information about the sender(s): social background, position, preferences, intended audience, purpose, beliefs, etc. (Wierzbicka, 1991; Foley, 1997; Crystal, 2001).

**3.1.2 Typographic signifiers** This sub-phase focuses on analyzing the potential culturally specific meanings that reside in the visual properties of the written texts, such as: font choice (font ‘families’ and their ‘character’

– formal, informal, authoritative, elegant, playful etc.); font size (importance, ‘shouting’ vs ‘whispering’); font style and effects (e.g. bold for emphasis, respect, phatic function, etc.); font direction (left to right, top to bottom, etc.) and curvature (straight or dancing); font color (cultural connotations, iconic and symbolic properties); combinations of different fonts (multiple ‘voices’?); character and line spacing, legibility (font shape and size in combination with color and background); para-iconic qualities (type as image – ‘bloody’ characters); text animations (text in motion); and intertextuality (reference to a specific type or logo, e.g. Coca Cola) (Brumberger, 2003; Van Leeuwen, 2005a, 2006; Stöckl, 2005; Cahalan, 2007).

**3.1.3 Visual representational types and signifiers** This sub-phase, of particular interest to visual researchers, is a very complex one. First, because visual representations come in many different types and shapes: graphical/conceptual representations (e.g. charts); algorithmic representations (e.g. photographs, scans); non-algorithmic representations (e.g. drawings, paintings); abstract or non-representational forms; symbols and icons, numerical representations (tables), each involving a different analytical stance because of their very diverse referents, production processes and uses (see Pauwels, 2008b). And secondly, because visual representations have to be analyzed meticulously both for ‘what they depict’ (‘referent’ or ‘content’) and ‘how they depict or represent’ (style). The latter aspect requires very specific knowledge of each of the distinct representational processes and therefore is often overlooked (many visual studies indeed limit themselves erroneously to the depicted content). In looking at the characteristics of the depicted, the analyst should be well aware of the nature of the referent (imaginary, material, conceptual; visible/invisible, etc.?) and of the particular ‘mode of representation’ (Carroll, 1996: 241): for example, ‘nominal’ (representing a class or general example) versus ‘physical’ representation (depicting a particular person

or thing/event). In view of space restrictions, I will limit the discussion of concrete characteristics of visual representations that might bear some cultural meaning to the ubiquitous 'photographic' image in websites.

The analysis of the 'level of the depicted' (in the case of photographs or film: the 'pre-photographic' or 'ante-filmic' level) would include scrutinizing such things as the depicted event, visual 'motives', persons (age, sex, attributes, specific behavior, actors or real persons?, etc.), background, lighting, use of visual rhetorical figures (metaphors, metonyms), etc.

The analysis of the 'level of the depiction' (style, medium specific characteristics, post-production) includes scrutinizing:

- (a) The '*material characteristics of the image*': these characteristics are limited in this specific case, namely websites, to 'images projected on a computer screen'. They include: texture, resolution, sharpness, color spectrum, image ratio (square, panoramic, etc.), image form, image borders.
- (b) The '*signifiers and codes of the static image*': these include: composition (prominent elements, balance, planes, light contrasts, color, direction, shapes and forms); use of superimposition, reflections or double exposures; nature of lighting (intensity, direction, diffusion); camera distance (extreme close up to very long shot); focus (deep focus/selective focus, soft-focus, center focus, etc.); depth of field – broad (deep focus photography) versus narrow (shallow focus); camera angle (high/low, canted angle, etc.); focal length (wide angle to telephoto); shutter speed (frozen to blurred effect); exposure (correct or over/underexposure); special effects (filters, digital effects, etc.).
- (c) The '*signifiers and codes of the shot*' (moving image): camera movements (panning, tilting, rolling, traveling, crane, handheld, steady cam, zooming, follow focus, rack focus); shutter speed (slow motion, fast motion, time lapse, freeze-frame).
- (d) *Editing choices*: shot length (short, long duration); image transitions (dissolve, fade to black,...); editing style (continuity editing, propositional, dialectic, etc.).
- (e) *Post-production*: digital effects, (relative) size of visuals, position on screen, sequenced or randomly changing images, live web cam images (web cam).

Each of these parameters and signifiers may express a particular culturally significant view on the depicted subject (e.g. respect or superstition by avoiding a close up, high and low camera angles to express domination or subordination, shallow focus to help steer (direct or obscure) the visitors' look, etc.) (Boggs, 1991; Monaco, 2000; Giannetti, 2007).

**3.1.4 Sonic types and signifiers** The auditory aspect of websites is becoming increasingly varied. Sonic sources of information include:

- (a) 'Spoken words or sung lyrics' with syntactic, semantic and pragmatic features similar to written texts *plus* a set of potentially significant phonetic dimensions (tone, accent, intonation, articulation, pauses, volume, etc.).
- (b) Non-verbal/vocal sound (e.g. laughter, screams, sighs).
- (c) Non-vocal sound/noise (e.g. car breaks, train whistle, a ticking clock).
- (d) Music (instrumental or vocal). ).

The iconic, indexical and symbolic properties of music in particular tend to provide strong cultural indications (genre, ethnic origin, ritual function, sub-cultural affiliation, iconic-indexical-symbolic), but in fact all of these different types of auditory signifiers can be analyzed for their 'content' (primarily via their iconic and indexical properties) and their more symbolic/metaphorical load.

**3.1.5 Layout and design signifiers** The proverb 'design is thinking made visual' (credited to the American graphic designer Saul Bass) also applies to websites. Website design and layout features are important vehicles to grab and steer the attention of visitors and to elicit a desired response from them. But, by the same token, they also reveal ideas, opinions and aspirations of the creator and/or 'applier'.

Particular combinations of choices may, for instance, express more conservative or nostalgic feelings or conversely embody a more experimental, daring or 'avant-garde' attitude. Layout and design features will work to guide potential visitors through a web page by the

use of dominant elements, iterative features and compositional choices: themes, templates, color schemes, use of columns and frames, backgrounds, white space, spatial balance (symmetry/asymmetry, horizontal, vertical or diagonal structure), left–right, top–bottom relations and expectations, relative size and position of texts and visual representations, etc. (Kress and Van Leeuwen, 2002).

These choices may result in a very rigid structure (predefined categories and spaces and pathways) or embody a more open space to wander around. They may seem to blend to a recognizable ‘genre’ (newsletter, family album, institutional) or exhibit a very hybrid and eclectic appearance. Again, explicit attention should be paid to cultural connotations/metaphor and intertextual references (e.g. a politicians’ web-site adopting the form of a family album).

It is important to note that the design and layout will be more revealing about the culture of the immediate sender(s) the more they are responsible for each of the constituting choices. When prefabricated templates are being used (which include content categories, for example, as with some commercially operated companies offering family website templates), researchers may be learning more about the culture (ideas, preferences) of the template developer than about its users, though the choice by the user for a particular ready-made template and graphic theme also remains significant.

### 3.2 Analysis of cross-modal interplay

This sub-phase pays explicit attention to the forms of interplay between linguistic, visual, auditory, spatial and time-based elements, for, very often, meaning is constructed by an interplay of two or more elements and while the constituting parts may express a specific idea, this idea may be completely reversed in combination with other elements.

More concretely, research here will focus on:

- Relations between written parts (captions, titles, body copy) and visuals, which can be characterized by a tightly bound or a loose relation: a mere illustrative, redundant or highly complementary

one (Garner et al., 2003; Hocks and Kendrick, 2003; Martinec and Salway, 2005; Hagan, 2007).

- Relations between sound and visuals (e.g. use of off-screen comments, on-screen speakers, musical score, synchronous sound), which may be characterized by a balanced/complementary, or hierarchic (dominant/subservient), or contradictory–contrapuntist (e.g. irony) stance. Sound can be used, for example, to enhance realism of the images or conversely serve a primarily expressive-symbolic function. (Chion, 1994; Van Leeuwen, 2007).
- And further: all possible interactions between typography; layout and design elements versus textual content, visual representations and sound which may for instance contribute to a unified view or position or reveal many incongruent ideas (e.g. a retro design combined with avant-garde opinions). This includes even relations between different elements within the same mode – i.e. the meaning that resides in the juxtaposition of images, or a specific combination of music or writing styles (Kress and Van Leeuwen, 1996; Van Leeuwen, 2005b; Knox, 2007).

### 3.3 In-depth ‘inverted’ analysis: significantly missing or incomplete content, arguments and formal choices

This sub-phase in a way reprises phase 2, but now it involves a much more in-depth analysis of aspects, issues and arguments that are not covered and which exactly by their absence seem to become significant (e.g. no use of close ups, no people in images, or no old people in images, absence of ethnic diversity in an ethnic diverse context, no external links, no info about a certain family member or aspects). Observing Watzlawick et al.’s (1967: 48) maxim ‘one cannot not communicate’, it may further help to uncover cultural taboos or highly sensitive issues through much ‘reading between the lines’.

AQ3: Please confirm

## 4. Embedded point(s) of view or ‘voice’ and implied audience(s) and purposes

As the previous phase involved a detailed analysis of ‘what’ is being said or expressed

through form and content, this next phase tries to further complement the inquiry into the cultural meaning of web utterances with the question: 'Who' is really saying (the earlier captured and analyzed) 'what' to 'whom' with what 'purpose'? This complex question is addressed in a meta-analytical way, combining different expressive elements that have been identified before (e.g. modes of address, camera angles, personal and possessive pronouns).

The Point(s) of View (POV) and /or 'Voice(s)' of a website are the result of a combination of many features: they can be manifold and even contradictory (e.g. pictures and texts originating from different people) or very consistent and unified. Obviously POVs reside in many aspects of the website (visuals, textual, design elements like templates, etc.) and they don't easily 'add up' to one dominant or unified POV, since many websites contain materials from very different sources (e.g. archive pictures, templates, journalistic texts). Yet the purpose of this phase is mainly to uncover what the dominant points of view are, as expressed in the website as a 'grand syntagma'. So a website may, for example, present itself at first sight as a family website where different family members have their say, but after closer scrutiny it may become clear that one family member is really pulling the strings and using the website as a vehicle to propagate his or her political views to an outside audience. The POVs can be very manifest (using first-person singular or plural, or a third-person voice in text or adopting subjective, half-subjective and objective camera positions in images), but often it remains difficult to determine whose point of view in a metaphorical way is being expressed. The picture taker typically remains invisible and the expressed (or literal) standpoint is not necessarily a 'position' in a more metaphorical sense. POVs and personae as described or depicted in texts and images may even be fictitious or false (e.g. in family websites parents often 'voice' the ideas and feelings of the younger children; in corporate and

commercial websites copywriters often put some words in the mouth of some real or fictitious employee or customer). The nature and variety of the POVs may add a sub-textual meaning to the content (embody indicators of democracy, multi-vocality, openness, or conversely reveal autocratic traits).

Paired to the analysis of POVs is the effort to derive/determine the intended/implied primary (e.g. children) and secondary (e.g. their parents) audience(s) and connected to that the embedded goals and purposes, only some of which are explicitly stated (and true). This analysis will further add to an understanding of whose goals are served, whose values are propagated and who is to benefit from expressing them.

Again, purposes and audiences can be explicitly stated, but they can also more indirectly be derived from 'expected visitor/user behavior'. Website offerings, particular features (feedback areas, polls), types of address, expressed POVs, etc., may hold indications of expected behaviors such as: subscribing to views, buying a product or service, being converted? Thus, implied audiences can be identified /constructed in terms of economic status or class (e.g. 'well to do' consumers), conviction (non-believers-believers), specific age groups (young children, elderly persons), other characteristics (same name bearers, nationality, hobby, health condition), etc.

This phase thus interrogates and complements 'first impressions' (phase 1) with a more in-depth analysis of manifest and latent aims. It also implies comparing explicitly stated purposes/audiences with latent/secondary ones. For example, family websites today are not limited to celebrating family events and values but often include, as secondary (or primary) goals, showing off technical or creative skills, selling products or oneself (e.g. by including a résumé), or voicing political and religious opinions. As this research phase, like the preceding one usually involves a rather 'sub-textual' reading of all elements and their interplay, it consequently may involve much interpretation.

### **5. Analysis of dynamic information organization and spatial priming strategies**

This phase focuses on analyzing the structural and navigational options and constraints (the 'dynamic' organization as opposed to static layout and design features) of websites as well as their priming strategies and outer-directed features with respect to steering preferred readings and conduct, and exercising control.

Researchers should both look at the overall information architecture/organization and at the place or position of different bits of information in that structure. The structure (menus, internal links, navigational tools) may allow for free roaming of the website or exhibit a tight order and set of rules that visitors should follow. The content, as linked with its spatial hierarchy/rhetoric (e.g. items with more or less space occupied in the website, items on the homepage or buried deeper into the website, the order and flow of elements, pathways and vectors), may express a social or cultural hierarchy as well.

For example, if in a family website the father's interests (hobbies, past, opinions) occupy more space and need fewer 'clicks' to find, this may be interpreted as a reflection of more traditional (less equal) gender roles. The numbers of layers one has to pass may sometimes be indicative of the importance or sensitivity of the item ('burying' as the counter-strategy to 'priming'). And even search engines (their options and undisclosed algorithms) may be considered potentially significant in terms of control and materialized cultural preferences (e.g. when going first for commercial links, or most popular links, or blocking certain content).

Contemporary websites often use (or are being flooded by) a gamut of priming tools and strategies ('most viewed videos', 'news', 'eye catchers', banners, pop-ups, internal links) of a very different nature and origin. They may also make use of numerous control mechanisms: passwords, counters, rules of conduct, forms of censorship, copyright

disclaimers, change, copying or printing blocking, privacy invading practices (cookies, or tools that capture part of the identity of the visitor). The use of each of these items can potentially tell us something about the value and belief system of its originator (trust–distrust, respect–disrespect, generous–self-serving). Other outer-directed features may include: chat rooms, bulletin boards, email contacts, Wikis, blogs, guest books, forms, YouTube video links, ads, dynamic links/updates (e.g. weather updates, financial info, web cam images). It may be important to study the nature and sought degree of 'interactivity' carefully. What exactly is the visitor or user of the website allowed to do, or expected to do: Just select content (menus), place an order, post a reply, add content, change content, engage in one-to-one, one-to-many, or many-to-many communication? Are they allowed to leave the website at any point? Or are connections with the rest of the Internet highly constrained?

The study of external hyperlinks, in particular, is often very rewarding as these virtual 'affiliations' are further and clear indicators and expressions of particular interests, preferences, value systems and aspirations (political, religious, commercial, educational, etc.).

The control over the look, functionality and contents of the website may be exercised by one person or distributed over several persons and groups (e.g. social networking sites).

### **6. Contextual analysis, provenance and inference**

Finally, inferences with respect to possible cultural significance and meaning need to be based on a solid insight into the origin and circumstances of the different constituting elements.

But 'authorship' and 'origin', and in this case the question of who to attribute certain choices to, is an increasingly complex matter with websites, not only because of the

multi-authored nature of many sites (especially social network sites, SNS) but also because of the supporting technologies of multiple sources (which are in themselves forms of materialized culture) and the strongly intertextual and globalizing aspects of contemporary media.

When sources are mentioned or detected, one should further investigate their authority, trustworthiness, and whether they are up to date (the 'last updated on' clause referring to the whole website provides a first yardstick).

Technologies and platforms, in and by themselves (templates, browsers, programming languages, database structures, graphic tools), with (and without) certain functionalities, already embody certain cultural norms (the 'politics of technology'; Star, 1999). And the same goes for the specific application of these technologies and their interaction with the set-up and purpose of the website (enable or constrain).

The ability to construe useful information from the embedded cultural signifiers of websites rests for an important part on the assumption that one knows who or what exactly is responsible for choices and how these different choices combine to deliver intended and unintended effects. This may not be important for the user of the website, who by default will adopt a holistic view or experience, but it will be of prime importance for research to the extent that one wants to read elements as cultural expressions. Similar to the last phase in iconological research, this requires a very thorough knowledge of culture and technology.

## CONCLUSIONS

Stating that the Internet (and the world wide web) form both a unique subject and tool for cultural research, I have argued in this chapter that some serious methodological problems still need to be overcome before these

prospects can be realized to their fullest extent. To that aim I discussed:

- The nature and value of online expressions, with phenomena such as impression management in asynchronous environments offering a host of opportunities with respect to conscious identity construction and even identity play.
- Problems of sampling a largely unknown and very dynamic online population.
- The less than adequate knowledge of how exactly offline and online worlds are connected.
- The verbal bias in social research, both in offline and online modes, and connected to that the lack of multimodal research tools to disclose the varied multimodal nature of the web as a rich social and cultural data source.

The main part of this chapter addressed this latter challenge by providing a multimodal model as a still fairly rudimentary tool for a more culturally focused analysis of a hybrid medium such as the Internet. This model offers an overview of the multimodal signifiers and some guidance for defining cultural indicators, but, by the very nature of the enquiry (as a 'meeting of cultures' of the web producers, the researchers and the users), it cannot identify any fixed cultural meanings or interpretations.

Thus, such a model can only partly become a generic tool for cultural analysis of web phenomena. It will need to be further refined and 'customized' depending on the specific research interests and the cultural contexts involved. To be usable, the model needs to be backed up by research/literature/knowledge on different cultures (both online and offline aspects). One of the most crucial parts of the research design remains the valid operationalization of a particular research interest into observable aspects of a website as outlined in the model. At the same time, the research effort always needs to be reduced to manageable proportions. Moreover, not all dimensions of the model will yield sufficiently important data for every possible research question. If one is interested, for example, in researching changing power dynamics in the family setting (gender roles, changing relations between children, parents, grandparents), one needs to operationalize this

## EXAMPLE / DECODING FAMILY WEBSITES AS A CULTURAL RESOURCE

### 1. Preservation of First Impressions and Reactions

- Categorization of 'look and feel' at a glance
- Recording of affective reactions

### 2. Inventory of Salient Features and Topics

- Inventory of present website features and attributes
- Inventory of main content categories and topics
- Categorize and quantify features and topics
- Perform 'negative' analysis: significantly absent topics and features

### 3. In-depth Analysis of Content and Formal Choices

- Intra-Modal Analysis (fixed/static and moving/dynamic elements)
  - Verbal/Written signifiers
  - Typographic signifiers
  - Visual Representational types and signifiers
  - Sonic types and signifiers
  - Layout & Design signifiers
- Analysis of Cross-Modal Interplay
  - Image/Written Text relations and Typography–Written Text relations
  - Sound/Image relations
  - Overall Design/linguistic, visual and auditory interplay
- In-depth 'negative' analysis

### 4. Embedded Point(s) of View or 'Voice' and Implied Audience(s) and Purposes

- Analysis of POVs and Constructed Personae
- Analysis of Intended/Implied Primary and Secondary Audience(s)
- Analysis of Embedded Goals and Purposes

### 5. Analysis of Information Organization and Spatial Priming

#### Strategies

- Structural and Navigational Options and Constraints (dynamic organization)
- Analysis of Priming Strategies and Gate-keeping Tools
- Analysis of Outer-directed and/or Interactive Features
- Analysis of External Hyperlinks

### 6. Contextual Analysis, Provenance and Inference

- Identification of sender(s) and sources
- Technological platforms and their constraints/implications
- Attribution of cultural hybridity

*(Pauwels, 2010)*

## Figure 29.1 The multimodal framework for analyzing web phenomena

Private or family websites are clearly among the most expressive web phenomena with regard to displaying prevailing values in a particular cultural context. Whereas paper-based family photography mainly served a 'socialization' and 'integration' function confined to next of kin and propagating



**Figure 29.2** Alan and Brenda's spot on the web (used with permission)

mainly domestic values to a fairly secluded audience (Bourdieu, 1978; Musello, 1979), the expressive means have increased dramatically once this practice moved into the semi-public realm and developed into a complex multimodal form of communication, catering for an anonymous mass of web surfers (Pauwels, 2008a). Today family self-representations on the web present a fascinating area of research into cultural change and reproduction, and into the complex role of technology in those processes at the 'grassroots' level. Many private websites contain – explicitly or more implicitly – verbal and visual statements about gender relations and role patterns, politics, religion, leisure, sports and sexual preferences.



**Figure 29.3** The Duggar Family website (used with permission)

AQ: Figures 29.2 to 29.4 are not cited in text

Pictures and stories about love and caring for kin (grandparents, parents, children and pets), material possessions (cars and houses), educational and sporting achievements, the military 'tour of duty' are typical expressions of values that are often celebrated on (American) family websites. Quite a number of website owners invest much effort in trying to entertain visitors with all sorts of games and topics of general interest to get in touch with an extended audience for a variety of purposes such as: making new friendships beyond the family sphere, voicing political and social views, and promoting skills and achievements to potential customers or employers.

The Duggars one of the largest families in the U.S. (19 kids and counting!), belong to the conservative evangelical Christian movement ('Quiverfull') which advocates procreation ('children are a gift of the Lord'), homeschooling and homesteading. Their website is very explicit about their firmly held values, norms and beliefs and they actively seek to promote them to the outside world not only in this website but through books, magazine articles, and appearances in documentaries and TV shows. The website is both very normative in the textual parts (the words of welcome, 'Duggar Family House Guidelines' and 'Character Qualities', 'Parenting Advice and Practical Tips') and in the visual representation of the



(a) Duggar Family discussing the chapter in Proverbs that corresponds with the day of the month.



(b) The Boy's Bedroom with 10 beds and 2 bathrooms (from left: Jeremiah top, Justin bottom, Jackson bottom, James top, Josiah, Jason bottom, Jedidiah top, Joshua bottom, Joseph top & John far right).

**Figure 29.4 a, b Two pictures from the Duggar's picture gallery (used with permission)**

family's activities and physical environment (almost uniquely depicting exemplary behavior like: sense of duty, togetherness and devoutness). The voice and point of view seem very consistent (mainly the father Jim Bob Duggar) throughout the website though there is some switching between the parents. Even when this website seems very explicit with respect to values and norms, still there are many aspects to be discovered through a more in-depth study of, for instance, the text image-relations, the content and the form of the images, the study of what is not shown or discussed (for example there are no signs or voices of dissent, no specific interests of the individual children discussed or depicted, no pictures of friends or the depiction of the outside world is limited to beautiful scenery and family members only). This website is an extremely rich example of how cultural views (in a broad sense) can materialize in numerous features of web based artifacts.

Most pictures from the Duggar Family website are wide angle shots to depict the whole (in physical and metaphorical terms) and the context rather than the part or the individual. They are very purposefully framed and several of the more formally posed pictures disclose a professional's touch. Apart from the clearly communicated intended meanings and the unequivocal captions to construct this 'preferred' reading, these pictures contain much information about the physical organization and the material culture of this family, and careful study of the image content and style also provides many indications of the more immaterial traits of the cultural setting.

concept or phenomenon in terms of concrete paradigmatic choices and syntagmatic effects of the website based on knowledge of cultural manifestations of this phenomenon or concept. Thus, one might benefit from looking more closely at: Who is talking in what manner for whom? What personal space (both in a literal and metaphorical sense) is every member entitled to? What view resides in the overall design and structure of the website? Who is depicted in what way and under what circumstances? etc. When researching larger samples of websites, many of such 'cultural markers' need to be translated into codebooks that stipulate the different options for each indicator. A broad cultural and multimodal literacy is required to succeed with this task. So, in the end, the meaning that can be derived from the constituting elements of the model will largely depend on the proficiency of the researcher in the various fields. Anthropological linguists will be able to extract much more useful data from looking at the textual parts and, conversely, visual scholars more from the complex layers of the visual in its multitude of appearances. The proposed model is no more than a tool for addressing the different elements and their interplay in a basic way, but it does not contend to be complete, or to supplant personal expertise. Moreover, it is only useful if the researcher has a broad and specific knowledge of the

culture under study. Analyzing websites in all aspects related to their cultural expressiveness will remain a very demanding and specialized undertaking. Although one can never be equally competent in all of the discussed aspects, a basic understanding of the constituting multimodal elements of websites and their respective disciplinary frames of reference may help scholars to further disclose the Internet as a rich cultural data source. As a positive side effect it may also allow them to become more culturally savvy and expressive when using the web as a tool to communicate their insights and research findings.

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