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11. Rare to Medium: A Full Taxonomy of Elements for Assessing How Well (Done) the Internet's Unique Capabilities are Currently Exploited by e-Magazines

The fast pace of the Internet's technological evolution and its somewhat unique character as a *multimedium* constitute a challenge for both practitioners and scholars alike. One such challenge is to understand its sundry capabilities and exploit them to the fullest[1]: to what extent, at this relatively early stage of the Internet's development, are its practitioners maximally using its (full) potentialities? The comprehensive list provided in this article offers a solid basis for analyzing[2] and comparing the extent to which the technical capabilities of the Internet are impacting the substantive contents as well as the communicative mode of transmission. While our case study focuses on e-magazines, the question addressed is universal: how different are they from their print counterparts at this relatively early stage of the Internet's development?

The current research surrounding the Internet has dealt mainly with its social and cultural impact through the communication connections that it engenders. Various studies have looked at the Internet from a variety of perspectives: content, policy, community and society, commerce, gender, CMC and interaction between users, plus some others. However, as Andrew J. Flanagin et al.[3] noted a few years ago,

1 This is the central focus of the doctoral study from which the subject of this chapter is taken: Nava Cohen-Avigdor, "Utilizing the Special Abilities of the Internet in Women's Journalism: An Analysis of the Penetration/Growth Stages of e-Magazines and the Self-Defense Stage of Print Magazines" (Ramat Gan: Dept. of Political Studies, Public Communications Program, Bar-Ilan University, 2005).

2 For each, we analyzed the *entire* e-magazine (or print-based site) and not just certain parts (e.g., homepage).

3 Andrew J. Flanagin, Wendy Jo Maynard Farinola, and Miriam J. Metzger, "The Technical Code of the Internet / World Wide Web," *Critical Studies in Media Communication* 17(4) (2000): 413.

4 Marshall McLuhan and Quentin Fiore, *The Medium is the Massage: An Inventory of Effects* (New York: Bantam, 1967): n.p.

5 John. E. Newhagen and Sheizaf Rafaeli, "Why Communication Researchers Should Study the Internet," *Journal of Communication* 46 (1) (1996): 4–13.

6 Tyrone Adams and Norman Clark, *The Internet – Effective Online Communication* (New York: Harcourt College, 2001): 29.

there exists a lacuna regarding the Internet's technological structure and how it influences Internet use. As we shall see below, several researchers ask whether this medium's new technological capabilities ("elements") are fully incorporated by content producers – or whether, alternatively, the Internet producers are making mistakes similar to their predecessors when earlier new media came into being: "application conservatism" – the rear-view mirror syndrome, as McLuhan and Fiore[4] put it – based on repeating the production patterns found in older media. Just as it took time for television producers to turn the "medium" into something "well done" (from early radiophonic TV to more visually-based programming), an important question today is how "well done" is the current Internet use of this new medium's "language," in the specific area of e-magazine content. Academic scholarship can go far in showing the way to fuller exploitation of this new medium's capabilities, as Newhagen and Rafaeli suggest.[5]

However, before such an undertaking can be accomplished, a prior task awaits us: producing a comprehensive taxonomy of the possibilities inherent in Internet journalism sites. As will be shown below, there have been several preliminary attempts at listing important elements along a host of categories, but all are partial at best. Thus, we have set out not only to bring together all such (relevant) previously mentioned elements, but to add still others not discussed in the literature. Such a comprehensive list can then serve as a baseline for assessing the relative success or failure of sites to utilize the vast panoply of capabilities that the Internet/Web theoretically offers surfers/readers.

It must be noted at the start that the term "Internet" is problematic, as Adams and Clark note.[6] Discussing the various factors offered by previous researchers that influence its character, they conclude that the Internet is both a *macromedium* (comprehensive in scope and global in

size; also enabling the dissemination of even the shortest messages for the smallest audience), and also a *metamedium* (a platform for older media, e.g., telephone, print, broadcasting). Our preference is to call the Internet a *multimedium*,[7] i.e., a combination of the two categories: *macromedium* and *metamedium*. It should be noted that the Internet is inherently different from the other main mass media (newspapers, radio, TV) in that while it retains some mass elements, it also has a distinct "demassified, individual and interactive nature."[8]

Obviously, our approach is based on the theoretical approach of technological influence on communication patterns developed by Harold Adams Innis and Marshall McLuhan.[9] While these two pioneers did not agree on all points, the central idea of *technological* centrality in the process of media evolution is the common thread running throughout their works. We do not directly attempt to prove or disprove their theory, but rather accept it as the starting point for our analysis of the connection between the Internet's technological capabilities and the content producers' use of them. Indeed, it was so at the very start: studies of the history of the Graphical User Interface show that its initial

7 See: Nicholas W. Jankowski and Lucien Hanssen, eds., *The Contours of Multimedia: Recent Technological, Theoretical and Empirical Developments* (U.K.: University of Luton Press – Academia Research Monograph 19, 1996); Roger Fidler, *Mediamorphosis: Understanding New Media* (Thousand Oaks, Cal.: Pine Forge, 1997): 25.

8 Nicholas W. Jankowski and Lucien Hanssen, "Introduction: Multimedia Come of Age," in *The Contours of Multimedia, ibid.*: 8.

9 Eric McLuhan and Frank Zingrone, eds. *Essential McLuhan* (London: Routledge, 1995); Michel A. Moss, *Marshall McLuhan Essays: Media Research, Technology, Art, Communication* (London: Overseas Publishers Association, 1997); Gary Genosko, *McLuhan and Baudrillard: The Masters of Implosion* (London: Routledge, 1999).

For the original works of this school's founders, see: Harold Adams Innis, *The Bias of Communication,* Introduction by Marshall McLuhan (Toronto: University of Toronto Press, 1951), reprinted (U.S.A.: 1964); Marshall McLuhan, *The Gutenberg Galaxy – The Making of Typographic Man* (New York: Mentor, 1962); Marshall McLuhan, *Understanding Media – The Extensions of Man* (New York: Mentor, 1964) and the Reprint Edition, with an Introduction by Lewis H. Lapham (Cambridge, Mass.: MIT Press, 1994); Marshall McLuhan and Quentin Fiore, *The Medium is the Massage, op. cit.*

phases were very much influenced by communication theoreticians who emphasized technological influence.[10]

The choice of technological influence as a starting point is not merely ours: in his book *Digital McLuhan*, Paul Levinson argues that McLuhan's theories are more relevant than ever in explaining the nature and influence of new media technologies, e.g., the Internet. As he put it: "How is selecting the news we want to read, hear about, and watch on the Internet different from its presentation via newspapers, radio, and television?"[11] Indeed, there has been a recent upsurge in scholarship from the perspective of communication technology influence.[12]

The most obvious change emanates from the process of media convergence (accelerated by the Internet) in which, according to Herbert,[13] present contents – especially information – undergo recoding or reformatting into a new type of product, transmitted through a wide array of telecommunications media, satisfying different needs of sundry audiences. The Internet, especially, enables information to be produced and consumed textually, orally and/or visually in ways different from previous broadcast media; this is both an opportunity and a challenge for the content providers, now faced with learning a new professional "language" of almost unlimited potential – and in McLuhanesque terms, dealing with a "colder" medium than before. Taylor,[14] emphasizing the pressures of convergence, says much the same thing: new, hybrid forms of media demand creative, interactive approaches in order to *fully* realize the almost unlimited potential of the Internet.

10 Susan B. Barnes, "Bridging the Differences Between Social Theory and Technological Invention in Human-Computer Interface Design," *New Media & Society* 2(3) (2000): 353.

11 Paul Levinson, *Digital McLuhan – A guide to the information millennium* (London: Routledge, 1999): 2.

12 Barnes, "Bridging the Differences Between Social Theory and Technological Invention," op. cit.: 354.

13 John Herbert, *Journalism in the Digital Age: Theory and Practice – Broadcast, Print and On-Line Media* (Oxford: Focal Press, 2001): 16–17.

14 Paul A. Taylor, "McLuhan's Millennium Message," *New Media & Society* 2 (3) (2000): 373–381.

Theoretical Background

As noted above, in this chapter we will offer a comprehensive list of the many elements that a text-based site could usefully apply on-site. There are books[15] that have dedicated a few chapters to the elements of the medium in general (from different points of view), and there have been a few studies[16] that have focused on several such elements (see below). Others have compared print and e-newspapers, among them Alloro et al.[17] who compared the contents of 54 biomedical print and e-magazines, asking whether the former is slated to disappear.[18] Li[19] analyzed the graphics and design changes in three major American

15 For example: Jakob Nielsen, *Multimedia and Hypertext: The Internet and Beyond* (San Francisco: Morgan Kaufman, 1995; Originally published in Boston, Mass.: AP Professional); Adams and Clark, *The Internet - Effective Online Communication, op. cit.*; Chris Mann and Fiona Stewart, *Internet Communication and Qualitative Research: A Handbook for Researching Online* (London: Sage Publications, 2000); and more.

16 Herre van Oostendorp and Christof van Nimwegen, "Locating Information in an Online Newspaper," *Journal of Computer-Mediated Communication* 4(1) (1998); downloaded from http://www.ascusc.org/jcmc/vol14/issue1/oostendorp.html (Oct. 22, 2002). Tanjev Schultz, "Interactive Options in Online Journalism: A Content Analysis of 100 U.S. Newspapers," *Journal of Computer Mediated Communication* 5(1) (1999); downloaded from http://www.ascusc.org/jcmc/vol5/issue1/schultz.html (June 4, 2001). Nicholas W. Jankowski and Martine van Selm, "Traditional News Media Online: An Examination of Added Values," *Communications* 25 (1) (2000): 85–101. Sylvia M. Chan-Olmsted and Jung Suk Park, "From On-Air to Online World: Examining the Content and Structures of Broadcast TV Stations' Web Sites," *Journalism & Mass Communication Quarterly* 77(2) (2000): 321–329. Jakob Nielsen and Marie Tahir, *Homepage Usability: 50 Websites Deconstructed* (U.S.A.: New Riders Publishing, 2002). Molly E. Holzschlag and Bruce Lawson, eds., *Insite Usability: The Site Speaks For Itself* (U.S.A.: Glasshaus, 2002); and others.

17 Giovanna Alloro, Cristina Casilli, Maurizio Taningher and Donatella Ugolini, "Electronic Biomedical Journals: How they Appear and what they Offer," *European Journal of Cancer* 34(3) (1998): 290–295.

18 Their conclusion: print papers will not disappear in the near future because of technological problems that will not be resolved quickly, e.g., low resolution of print type on the screen.

19 Xigen Li, "Web Page Design and Graphic Use of Three U.S. Newspapers," *Journalism & Mass Communication Quarterly* 75(2) (1998): 353–365.

papers that decided to put out an e-version as well; Nielsen[20] did much the same (mostly design) on a theoretical level. Peng et al.[21] studied the latest trends of U.S. e-paper sites, focusing on classified ads, readers, contents and services offered. In short, all these studies touch on some unique Internet elements – but either limited in the number of such elements or in the site sections studied. To our knowledge there has been no attempt to *comprehensively and systematically* list them *all* through a study *in situ*.[22]

To be sure, "new" is not necessarily "improved." The ultimate purpose of changing the design of, and adding elements to, a new-old medium is to improve the consumer's experience, i.e., to render it more usable. This means that each element must offer some *real* (and really *useful*) "added value" to the user. Therefore, we take as our lead the term "usability" that constitutes a common thread in Internet studies of the technology and the medium's "form"; we list only those elements that offer such extra value for the end user as others have done. For example, van Oostendorp and van Nimwegen[23] explored several elements of e-papers' usability, especially their influence on different reading techniques (e.g., scrolling and hyper-linking) for finding information dispersed throughout the site. We too study reading/searching techniques through an expanded list of traits regarding Links (horizontal, vertical, sub-linking to other sites) and also Accessibility to sections/services (e.g., Purchases, Archives). Too often, only seasoned, veteran surfers are capable of discovering these, rendering the site only partly usable for the average reader.

20 Jakob Nielsen, "Differences Between Print Design and Web Design" (Jan. 24, 1999); downloaded from http://www.useit.com/alertbox/990124.html (Jan. 25, 2001).

21 Yeuh Foo Peng, Tham Irene Naphtali and Xiaoming Hao, "Trends in Online Newspapers: A Look at the US Web," *Newspaper Research Journal* 20 (2) (1999): 52–63.

22 The specific case study of the doctoral dissertation from which the present article is taken involves 30 women's magazines – electronic and print. The women's magazine is the largest selling type of magazine in the Western world. This offers two possibly conflicting elements: 1. leading print magazines tread warily in the new medium so as not to kill the golden goose; 2. they have a strong economic incentive (and wherewithal) to put some eggs in the new media basket.

23 Oostendorp and Nimwegen, *Locating Information in an Online Newspaper, op. cit.*

business approach because a station will be able to minimize costs by re-formatting the content it already owns and provide the utility currently sought by most audience Web users. As the Web grows and the delivery technology improves, the TV broadcasters will eventually enter a stage of Web development that requires more product differentiation."[32]

This also seems to be print journalism's approach. Their entrance into e-journalism was accompanied by two economic fears: 1) heavy outlays undercutting the organization's profitability, especially as almost all Web content is free; 2) losing paying readers of the print paper who will find the same material online. These considerations go a long way in explaining the conservative technical and graphic decisions regarding content and design, i.e., not fully utilizing the medium's capabilities. In any case, we too list several of these comparative contents elements.

The Internet (and the Web within it) is not merely a top-down medium but also holds many peer-to-peer possibilities. Derrick de Kerckhove's[33] analysis of the Web stresses its "tribal" character (McLuhan's terminology[34]) and as such involves "shared" language, not "imposed." Levinson[35] goes so far as to claim that the Internet has truly transformed our world into McLuhan's "global village" as every online villager can create a dialogue with any other surfer.[36] Thus, as de Kerckhove notes, the Web is both collective and personal. Finally, the language is "oral" (textual immediacy) but also copied and stored – in Innis' terms, overcoming the limitations of both space and time.

Of necessity, all these characteristics are represented in our list of elements. For instance, chat rooms are the purest expression of orality on the Web, whereas the huge archives and data banks store information in amounts not heretofore possible. Many e-papers understand the

32 *Ibid.*: 337.

33 Interview with de Kerckhove in: Kevin Kelly, "What Would McLuhan Say?" *Wired* (Archive Oct. 4, 1996); downloaded from http://www.wired.com/wired/archive/4.10/dekerckhove.html (Jan. 3, 2001).

34 See: Marshall McLuhan and Bruce R. Powers, *The Global Village* (New York: Oxford University Press, 1989).

35 Levinson, *Digital McLuhan, op. cit.*, 7.

36 This point leads directly to the issue of gatekeeping on the Net, of major importance regarding the communication process. However, because of the complexity involved we shall not deal with this question despite its indirect connection to the medium's traits.

value of chat rooms and give them prominent place (along with topic-specific forums). Archives can also be found on such e-papers in various guises[37] – from entire issues preserved in original form, to internal search engines, to select articles connected to central links according to subject or section within the site.[38]

Innis also investigated many of the printed page's influences on the reader, among them the severance of communicator/audience connection.[39] To a large extent, both Internet synchronous and asynchronous interactivity neutralizes this problem, enabling new types of connection between the two parties – and thus we include interactivity in our list as well.[40] Newhagen and Rafaeli see interactivity as one of the five major elements of the Internet (the others being multimedia, hypertext, packet switching and synchronicity).[41]

Levinson goes even farther, claiming that interactivity is the prime factor underlying many surfers' "addiction" to the Internet.[42] Rafaeli and Sudweeks agree to some extent: "Interactivity plays a role in creating the attraction of networks and in generating their growth patterns."[43] Al and Laura Ries view interactivity as the defining element differentiating the Internet from all other mass media – in the long run determining what will be an appropriate part of the Net and what not.[44] Indeed, Nielsen views the Internet in the future as being completely interactive![45] Nevertheless, as Rafaeli and Sudweeks conclude, we still have a while

37 Some now charge money – a growing phenomenon on the Web.

38 The Internet has become the source for more information retrieval than any other – books, magazines, television and telephone. Andrew J. Flanagin et al., "The Technical Code of the Internet," *op. cit.*, 417.

39 McLuhan and Zingrone, eds. *Essential McLuhan, op. cit.*, 307.

40 Chan-Olmsted and Suk Park, "From On-Air to Online World," *op. cit.* We list below seven elements related to interactivity.

41 Newhagen and Rafaeli, "Why Communication Researchers Should Study the Internet," *op. cit.*

42 Levinson, *Digital McLuhan, op. cit.*, 11.

43 Sheizaf Rafaeli and Fay Sudweeks, "Networked Interactivity," *Journal of Computer Mediated Communication* 2 (4) (1997). Downloaded from http://jcmc.huji.ac.il/vol2/issue4/rafaeli.sudweeks.html (June 6, 2001).

44 Al Ries and Laura Ries, *The 11 Immutable Laws of Internet Branding* (New York: HarperCollinsPublishers, 2000).

45 Jakob Nielsen, "Differences Between Print Design and Web Design," *op. cit.*

Two relatively recent books do deal comprehensively with the extent of usability: *Homepage Usability*[24] that analyzed only the Home Page; and *Usability: The Site Speaks For Itself*,[25] covering the entire site. However, the former dealt with all types of sites (commercial, e-stores, computer firms, TV channels, as well as CNET and USA Today, among others). The latter is closer to what we hope to accomplish; *Usability: The Site Speaks For Itself* dealt in-depth with six complete sites, among them BBC News and Economist.com, basing its recommendations on the practical experience of Webmasters (Website developers, designers and strategists). In the book's introduction, Molly E. Holzschlag[26] notes that "usability" predates the Web[27] and certainly is a non-absolute, i.e., subjective, matter – with Webmasters still involved in a learning process. The Economist.com Webmasters decided on eight parameters (what we call "elements"): Identity; Navigation; Page length; Clean content; Strong header; Consistency; Frequency; and Balance.

Our list goes well beyond these parameters. On the other hand, because of the huge taxonomic complexity of what we have set out to do, this chapter will not attempt to also test the relative "added value" of each of our elements regarding usability. We leave such an investigation to a future time – perhaps when e-magazine sites will include most of our elements.

Returning for a moment to the Nielsen and Tahir book,[28] it is generally accepted that the homepage is far and away the most important part of any content site because of its high visibility (only infrequently will a surfer arrive first at an interior page through some horizontal "deep link" from another site). The authors offer 113 homepage usability guidelines, some relevant to other pages and some not. However, many of their guidelines are not reader-oriented but rather *provider*-oriented – from a pronounced commercial marketing perspective, not altogether relevant for our purposes. Our list, on the other hand, is *reader*-oriented. Nevertheless, several of their points are well taken.

24 Nielsen and Tahir, *Homepage Usability, op. cit.*

25 Holzschlag and Lawson, eds., *Usability, op. cit.*

26 Holzschlag and Lawson, eds., *Usability, ibid.., 2.*

27 The disciplines that have formed the foundation of Web "usability" are: User Interface Design; Human Computer Interaction (HCI); Graphical User Interface(GUI) .

28 Nielsen and Tahir, *Homepage Usability, op. cit.*

For example, whereas the main purpose of a print magazine's cover page is to encourage the consumer to purchase that magazine instead of its many competitors at the newsstand, the homepage is arrived at consciously by the reader so that here it needs to "pull" the surfer into internal pages, given the great ease of jumping ship to other online magazines. Other differences relate to "content turnover": unlike print vehicles, e-magazines (or e-papers) must change at least part of their contents more than the official publication frequency would indicate (e.g., hourly within a "daily" newspaper; weekly or even daily within a "monthly" magazine). Finally, given the ease of hypertext jumping within a site, the e-magazine's homepage necessarily must offer far more information than its print counterpart regarding the contents. Thus, our list opens with the critical homepage, based on five central elements related to surfing quality, information accessibility and site orientation (some of these elements are also examined over the entire site).

The need for a comprehensive taxonomy is evident from the universal conclusion that Web content sites do not come close to utilizing the technical capabilities at their disposal. For instance, in a content analysis study of 100 American e-papers Schultz[29] found very little interactivity opportunities (e.g., e-mail; Discussion Forums; Chat-Rooms; Letters to the Editor; Poll/Surveys) for the readers. Jankowski and van Selm[30] looked at seven daily e-papers and six TV news e-sites from the U.S., Canada and Holland, and found that they included in varying measure multimedia, discussion and feedback. Their study offers six elements for studying (un)successful sites in the future: Hyperlinks; Discussion groups, Feedback, Archives, Multimedia, and Updating news. We include these as well.

Finally, Chan-Olmsted and Park[31] – in their large-scale study of 300 TV news sites – looked at three major categories: homepage contents (3 variables); overall site contents (8 variables); and overall site structure (18 variables). They also found that there was not a lot of interactivity and personalization. Rather, these stations chose to stick to their traditional fare of news presented in rather straightforward fashion: "The emphasis on news-oriented content presents a less risky

29 Tanjev Schultz, "Interactive Options in Online Journalism," *op. cit.*

30 Jankowski and van Selm, "Traditional News Media Online," *op. cit.*

31 Chan-Olmsted and Suk Park, "From On-Air to Online World," *op. cit.*

to go before formulating a complete theory of interactivity[46] – in part because of the multi-varied nature of the phenomenon. As Kiousis points out, interactivity is both a media function and a "psychological factor that varies across communication technologies, communication contexts, and people's perceptions."[47]

If Innis was interested in how the audience becomes disconnected from the mass communicators, McLuhan took a different tack, regarding media as "extensions of our human selves,"[48] i.e., enabling a reaching-out of our senses. Radio, for example, extended our ears. From this perspective, the Internet can be said to "extend the extensions" through its ability to combine within it the specific and discrete extensions of each previous medium. He would most probably have viewed digital technologies (e.g., the Internet) as extending our central nervous system beyond our natural analog capabilities through the dissemination of our thoughts and ideas around the globe via e-mail, chat, forums and the Web as a whole.

As McLuhan thought it incumbent upon us to understand the function of each of our senses (through whatever medium: skin, eyes, tongue) in order to fully comprehend our physical and social environment, so too is it important to list and categorize the various unique capabilities of the Internet based on the sundry media within it. In other words, the Web contains capabilities derived from textual media (e.g., diverse ways of presenting texts; emphases on key words; still photos), from electronic media (e.g., film; the possibility of "zooming" in and out of pictures; moving items; flash; audio), and even new capabilities not found in classical media (e.g., synchronous and asynchronous interactivity, such as chat, forums, or instant polls, as well as self-publishing). Only by delving into each element and accompanying capability can we completely comprehend the full potential of this communication complex along its physical (Net technology) and social (influence) dimensions.

To this one must add, in light of McLuhan's dichotomy, the convergence of hot and cool media within one technological infrastructure

46 Rafaeli and Sudweeks, "Networked Interactivity," *op. cit.*

47 Spiro Kiousis, "Interactivity: A Concept Explication," *New Media & Society* 4 (3) (2002): 355.

48 Marshall McLuhan, *Understanding Media, op. cit.*

– obviously rendering the (multi)medium an even more complex affair. The interactive characteristics render the Internet a cool medium, and as the technology improves this facility the medium becomes ever "colder." Nevertheless, given the presence of other elements the hot character of the Internet is not about to disappear soon.

Related to this is the paradox noted by Innis and McLuhan that as electronic media abolish time and space, they can also bring people closer together, i.e., strengthen social relationships, by using the social capabilities of each medium converged within it. Here the sum is indeed greater than its parts, leading to a capability not found (at least not to the same extent) in other mass media: the development of "community." From the perspective of our subject here – e-journalism – as incorporation of more Internet elements (especially the interactive ones) continues apace within a magazine or portal, so too does it become a useful vehicle for developing a community ethos.

To be sure, such a community might be somewhat different than what has come before, given that "the medium is the message." There are two aspects to consider here, as Carey points out in his introduction to Innis' book *Changing Concepts of Time*:

> The spatial bias of modern media, the attempt to extend lines of communication further and further, from center to margin, from the capital to the hinterland, in order to exercise definitive control over the environment, including the humans that inhabit that environment inevitably shrinks time down to the present, to a one-day world of the immediate and the transitory.[49]

Thus, the Internet enables its users to cast their social net wider than ever before, in a fashion that is almost global (were it not for the language barrier). Virtual communities need no longer be local or national; they transcend geographical (and even cultural) borders. *The New York Times* Internet edition, for example, already today has more non-New York readers than its print edition has local readers. However, as the above quote makes clear, such "community" might come at a price of an overly transitory perspective.

Just as Innis provides a cautionary tale to what McLuhan calls the extensions of man on a macro-social level, so too in the micro e-journalism context one has to be wary of overextension. Much

49 Harold Innis, *Changing Concepts of Time* (U.S.A.: 1952): xv.

like Narcissus, we can become overly taken with our expanding self. First-time designers are especially prone to this problem. As Rieder notes,[50] this phenomenon was common among those who designed the overall Web and the Webmasters of particular sites. They were so taken by their mastery of Web code that in effect their creativity was shut down. As a result, the early designers narrowed the possibilities of the servomechanisms of the medium, turning into quasi-robots, exaggeratedly mimicking each other without any measure of sophistication. Publishers and editors, with even less understanding of the underlying architectonic difference between the Web and previous media, tended to throw text into the Web without much thought and called it an "e-newspaper."[51]

The result: Web pages clinging to older design models overloaded by "gadgets," without much real utility to the surfer. Rieder advises designers to think about the design of Web pages less from a technical perspective and more from one emphasizing the ideal surfing (reading, etc.) experience, i.e., to distance themselves somewhat from pure technological determinism – or at least from technical overload (on Web pages, sometimes "less is more"). As Staci Kramer argues: "There should be a limit on the number of moving elements on any page at any given time… . [I]t's hard to focus on the usually fine work offered by msnbc.com when msn butterflies are fluttering, program notes are rotating and banner ads are taking turns. Ditto for CBSnews.com and its no fewer than five moving front-page elements. The part of me that desperately wants news Web sites to make money is in direct conflict with the part that gets distracted by the way the retail space is being used."[52] For this reason, our list also includes "design overload" (amount of info and available services; graphics complexity) as well as ease of orientation on the homepage and the site as a whole.

50 David Rieder, "Bad Web Design: The Internet's Real Addiction Problem," in *Web. studies: Rewiring Media Studies for the Digital Age*, ed. David Gauntlett (London: Oxford University Press, 2000): 97.

51 Newhagen and Rafaeli, "Why Communication Researchers Should Study the Internet," *op. cit.*

52 Staci D. Kramer, "DIY News: News Web Sites Offer Tools for Assembling Free-Ranging Newscasts," *Online Journalism Review;* downloaded from http://ojr.usc.edu/content/story.cfm?request=660 (Nov. 7, 2001).

This brings us to the question of the place of the surfer in the Web news/information experience. Overall, Websites are comprised of short texts with the readers "surfing," "scanning," and/or "linking" (jumping) from one text to the next. According to Nielsen,[53] surfers overwhelmingly prefer short, objective, straight-to-the-point writing, with 79% scanning text compared to a mere 16% who read every word of the item/document. As a result, he suggests that in order to enable such text to be readily scanned, editors should bold key words, present substantive sub-headlines, list major points in bullet form, place each idea in its own paragraph, and build the article in pyramid fashion.[54]

According to some pundits, this sort of media "consumption" requires very little intellectual effort on the part of the user. Indeed, the amount of material on the Web is vast and yet there is no "standard" for determining what is worthwhile and what not (for example, other than the homepage, e-papers don't have "pagination," so that one lacks the ability to discern the relative importance of an item on page 2 compared to one on page 34). In such a situation, information retrieval becomes almost accidental (or driven by other considerations, e.g., search engines that place "paid-for" sites higher in their results list). Moreover, despite the "unlimited" potentialities of the Internet, the underlying operating program structure is relatively circumscribed. This results – if we were to use a McLuhanesque approach – in passivity, laziness, superficiality, and the inability to evaluate the informational value of data and facts.[55]

On the other side of the fence are those, like Levinson, who forcefully argue that surfing the Web is nothing like the passive experience of TV viewing. Rather, it holds the promise of personal creativity – "we create it and remake it by using it" – just as we did in the acoustic space before the advent of print and the age of literacy.[56]

How to account for such different assessments of Internet use? The answer lies in the multifarious nature of this multimedium, full of

53 Jakob Nielsen, "How Users Read on the Web" (1997a); downloaded from http://www.useit.com/alertbox/9710a.html (Jan. 9, 2001).

54 Jakob Nielsen, "Measuring the Usability of Reading on the Web" (1997b); downloaded from http://www.useit.com/alertbox/readingmetrics.html (Jan. 9, 2001).

55 Pasovsky, Uri, "DominatingTakeover" [Hebrew], *Haaretz*, Nov. 28, 2000: 14–17.

56 Levinson, *Digital McLuhan, op. cit.*, 6.

contradictions or at least paradoxes: it is collective but also personal; it has huge amounts of information but no hierarchical structure; the Web page is physically two-dimensional but also multi-dimensional (what with time elements and the ability for action to take place on the screen);[57] the whole technology is quite complex but also very user-friendly.

Given the debate and the medium's many facets, it would be hard to overestimate the critical importance of understanding the design of the underlying technology, as Flanagin et al. emphasize.[58] This includes the physical form of each Web device (PC, cell phone, PDA, TV), social procedures involving its use (where? when?), and of course the medium's functional capabilities/limitations. All of these render the medium a "cool" one in McLuhan's terms[59] – soft, shadowy, blurred, changeable, demanding greater participation from the user. The Web, full of hyper-links, is a clear case of "a verdant breeze wending its way through every leaf in the hothouse of knowledge, not only cooling but pollinating as it moves along," as Levinson poetically puts it.[60]

In sum, while the Web (and its meta-infrastructure, the Internet) has been a catalyst for new forms of journalism[61] (including women's

57 A Website design is essentially different from a printed page design, among other things because of the scrolling element characterizing the latter as well as the layering ("Windows") technique. Jakob Nielsen, "Differences Between Print Design and Web Design," *op. cit.*

58 The emphasis on technical code is based on: Andrew Feenberg, *Alternative Modernity: The Technical Turn in Philosophy and Social Theory* (Berkeley, Cal.: University of California Press, 1995a). Andrew Feenberg, "Subversive Rationalization: Technology, Power, and Democracy," in *Technology and Politics of Knowledge*, eds. Andrew Feenberg and Alastair Hannay (Bloomington, Ind.: Indiana University Press, 1995b): 3–22.

59 Marshall McLuhan, *Understanding Media, op. cit.*

60 Levinson, *Digital McLuhan, op. cit.*, 117.

61 Maggie O'Brien, "Newspapers on the Internet – With a case study of the Nando Time," Research Paper, *Junior MagZINE Journalism* at the University of Texas Austin (1999); downloaded from http://uts.cc.utexas.edu/~maggs/paper.html (Jan. 9, 2001). Keith Kenney, Alexander Gorelik and Sam Mwangi, "Interactive Features of Online Newspapers," *First Monday* 5(1) (2000): 217–235;downloaded from http://www.firstmonday.org/issues/issue5_1/kenney/index.html (June 21, 2003).

62 Lisa Hamm-Greenawalt, "Women's sites understand community," *Internet World*

magazines[62]), it is still far from realizing its full potential. Few are the site producers that fully utilize the interactive potential of this medium that could lead in principle to an entirely new form of communication.[63] Because the e-paper grew out of the print paper milieu, and despite it being a rather different product in its very essence, it mostly continues to preserve the structural model of its forebear.[64]

Towards a Taxonomy of Elements: Problems and Rationale

Internet communication is not limited to text alone. Mann and Stewart note[65] that as the Internet's capabilities and bandwidth increase, enabling wider use of voice and pictures/video, the limitations inherent in the keyboard disappear. This places Web surfing on a plane markedly different from print and other classic media, with its own cultural and psychological (not just technological) codes.

We intend here to delineate the full panoply of Web/Internet capabilities from the perspective of the e-magazine (and by extension, news journalism) user – a sort of Internet Codex. These will be presented on three levels of organization in descending order: first, broad *categories* that relate to the two types of journals (Internet and/or print); second and within each category, the sundry *elements* or "traits" that are found in each type of journal (e.g., homepage, design, advertising, etc.); and third, the specific *variables* within each element (e.g., whether the ads are interactive or not; method of payment for content, if at all, etc.). As suggested by the first level, this list will include not only those aspects unique to the Web/Internet (the main part of the list), but also elements

5 (29) (1999): 56–9. Downloaded from http://www.findarticles.com/m0DXS/29_5/55818628/p1/article.jhtml (Feb. 1, 2001).

63 Kevin Crowston and Marie Williams, "Reproduced and Emergent Genres of Communication on the World Wide Web," *The Information Society* 16 (3) (2000): 201–216.

64 Melinda McAdams, "Inventing an Online Newspaper," *Interpersonal Computing and Technology Journal* 3(3) (1995): 64–90; downloaded from http://www.sentex.net/~mmcadams/invent.html (June 5, 2001).

65 Mann and Stewart, *Internet Communication and Qualitative Research, op. cit.*, 217.

that are found in both print and electronic versions of magazine (and news) sites, albeit in different measure. Before doing so, however, it must be noted that such an enterprise is fraught with difficulties and inherent vagueness.

Two examples will suffice at this stage to indicate the problems involved: scope of the site and number of ads. The volume of a magazine can easily be measured through the number of pages of equal size found therein. But how is one to count the number of e-pages if we cannot easily follow the pagination due to links, pop-up pages, constantly changing ads and the like – not to mention the fact that the length of scrolled pages is not standardized! Similar difficulties attend anyone trying to follow the number of ads and their size: how does one count a banner with internally changing ads in rotation? Does one include a pop-up that appears only after a certain amount of reading time or only for specific surfers (based on their cookie information)? Worst of all, it is difficult to follow a site's evolution (unless one is willing to survey its entirety each day), precisely because of its dynamism and especially the fact that many sites do not save (or permit unlimited access to) previous editions.[66] If one wishes to analyze the Web edition of *The New York Times*, is that the 6:00AM, 12:20PM or 8:40PM edition? (*The NYT* updates every 20 minutes.) Ditto for a monthly magazine, in which certain sections or columns can change every week or even more often!

There is little doubt, therefore, that in researching the dynamic and ever-changing Web environment a great deal of intellectual flexibility is called for, demanding creative solutions (within accepted academic rules of the game). Blind acceptance and continuation of prior research methods used with traditional, static media will render future research increasingly difficult and even irrelevant regarding the Internet, for this novel medium demands the use of fresh approaches and categorization.

To be sure, not all sites necessitate the same level of innovative thinking. It is comparatively easier to define (e.g., frequency of

66 Overcoming these hurdles, in this doctoral research we have managed to find several e-magazines with previous editions still existent – which enable us to compare "then" and "now," offering a truly historical picture of the producers' learning process from the start.

publication) an e-magazine site that has a parallel print magazine. Here there already exists a recognized, clearly delineated and defined media product that can be compared with the newer e-artifact. However, when we approach an entirely new e-magazine that has emerged from the Web, sans print edition, the situation and concomitant definitions tend to be murkier. There are sites that clearly describe themselves as magazines/newspapers and there are others self-defined more as "virtual communities," with everything that this implies as noted earlier. In both cases, the contents and services offered are still loosely based on the print magazine archetype, but with very wide leeway to add a broad array of activities not found in classic print media.

This leads to the next point. As Rivett correctly argues,[67] it is important to keep in mind that Web texts cannot be understood divorced from their production and consumption patterns – that also may vary greatly, not only from surfer to surfer but also over time. Thus, any analysis must be carried out in the context of its being a fast-growing medium. We would thus expect that in future studies based on our taxonomy a fairly large gap will emerge between what the producers functionally offer on their magazine/newspaper Websites and what they *could* be offering.

Even the use of the term "Website" (or "Web") is somewhat problematic. As mentioned earlier, the Internet is both a medium of communication and also a *metamedium*, i.e., the underlying infrastructure for several specific media: e-mail, telephony, group discussion, Web surfing, etc. While this distinction is a useful one, it is not always very practical. E.g. – an e-magazine might at first be taken for a replacement of the print medium (a *Web* site), but given that it may also carry discussion forums, e-mail, and other types of "non-magazine" (i.e., *Internet*) use, we cannot clearly distinguish between the e-magazine in its "medium" and its "metamedium" guises – that is, between its "Web" and "Internet" modalities. Thus, up to this point we have tried to be precise in using "Internet" and "Web" in their proper place. For the sake of simplicity, however, we shall henceforth use only the term "Web" in the context of the e-magazine, with the understanding that it relates to the Web *plus* other Internet functions such as e-mail, forums and the like.

67 Miriam Rivett, "Approaches to Analysing the Web Text: A Consideration of the Web Site as an Emergent Cultural Form," *Convergence* 6 (3) (2000): 34.

How did we go about deriving the list below? First, we drew from the extensive literature as surveyed above. Then, as part of a larger, doctoral dissertation study, 30 different women's magazines (a few Israeli; most American) were analyzed: 10 of the most popular print magazines (e.g., *Good Housekeeping*, *Ladies Home Journal*, *Elle*, *Self*, etc.), 10 e-magazines put online by these ongoing print magazine, and 10 new e-magazines found exclusively online (e.g., *Girl Zone*, *All That Women Want*, *Women's e News*, *iwomen*, etc.). It should be noted that selecting Websites is a precarious affair because of the institutional instability inherent in this still early development stage of the Web – new sites are being added each day, many sites disappear just as quickly,[68] and for those which do survive, internal design/format/content change is almost de rigueur.[69] Thus, the Web researcher should try to analyze the subject under scrutiny in "real time"[70] and not after the fact, for the specific site may not be around soon thereafter!

In order to account for the above considerations and prevent some of these pitfalls, we decided on the following approach: 1) 10 print magazines and 20 sites were analyzed over a six-month period. 2) We carried out one full investigation each month as the magazines and the sites appeared/were updated. In short, 180 entire magazine "issues" were studied, from July – December 2002. 3) The e-magazines were also followed periodically *between* each new issue, to understand the possibilities regarding sectional changes and ongoing interactive communication with the readers.

It should be noted that the list displayed below is completely *non*-content dependent, and thus can be applied to other news/content sites on the Web[71] – perhaps even to the other new, content-oriented media

68 See, for example, Sally J. McMillan, "The Microscope and the Moving Target: The Challenge of Applying Content Analysis to the World Wide Web," *Journalism & Mass Communication Quarterly* 77 (1) (2000): 80–98. She found that around a sixth of all health Websites disappear within a year.

69 Giovanna Alloro et al., "Electronic Biomedical Journals," *op. cit.* Marcia J. Bates, and Shaojun Lu, "An Exploratory Profile of Personal Home Pages: Content, Design, Metaphors," *Online and CDROM Review* 21(6) (1997): 331–340.

70 McMillan, "The Microscope and the Moving Target," *op. cit.*

71 There exists the possibility that for "daily" *e-newspaper* sites some minor revisions/additions might have to be made to our list – most probably in the internal indicators within some of the variables.

in the future. Having said that, however, we cannot make a claim for completeness (despite our "Codex" comment above) – for the simple reason that technological improvements and future inventions will almost undoubtedly add more elements to the Web arsenal. To take but one offbeat example, a company called "Digiscents" (now defunct) successfully developed a way to add the sense of *smell* to the surfing experience![72] Certainly massive broadband, wireless surfing, and even ultimately the full development of Virtual Reality will augment the Web with further characteristics and potentialities.

Our list is divided into four broad media categories, each of which has several elements: 77 are unique to the Web; 14 are common to print and e-magazines; 5 are unique to print magazines[73]; 15 are relevant to a comparison between the same magazine's print and Web editions. Altogether, our taxonomy includes 110 elements and their respective variables.

By adding up the coding results of these elements and also combining them into larger categories (as will be detailed below), researchers will be able in the end to do four things: a. assess how well the full panoply of potentialities is currently being utilized; b. analyze the extent to which the cumulative learning process of media adaptation has taken place over time; c. compare the similarities and differences between print and Web magazines in general; d. understand the differences between "sister" magazines – print and Web – and how each is used to complement the other.

Elements and Variables[74]

Elements (and respective variables) Unique to e-Magazines

A. ***Homepage***[75]*: 1. Orientation Around the Page* (hard – easy); 2.

72 Anna Salleh, "Now you can smell it – online," *Science News* (April 18, 2001); downloaded from www.abc.net.ac/science/news/stories/s278744 (Jan. 13, 2003).

73 A few of these five are relevant to the larger doctoral study from which this chapter is drawn.

74 One technical note: in order to shorten the long list, the following elements do not present the full range of all the internal variables but rather list only the extremes (placed within parentheses).

75 Because the homepage is the most important and widely read section – from which

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75 Because the homepage is the most important and widely read section – from which

Amount of Info and Available Services (none – large number); 3. *Site Index Enabling Easy Access* (no – yes); 4. *Start of Articles or Full Articles* (no – yes); 5. *Ability to Make the Page Your Homepage* (no – yes).

All subsequent categories and variables refer to the entire Website.

B. ***Contents*** *(readability)*[76]*:* 6. Structure/Concision of Writing (over 1000 words – up to 200 words); 7. Ease of Eye Scanning With Key Words *Highlighted* (none – in every article); 8. Ease of Eye Scanning With Key Words *Bulleted* (none – in every article).

C. ***Design*** *(graphics complexity)*[77]*:* 9. *Graphics Maneuverability – Surfer Can "Zoom" Pictures* (none – every page); 10. *Graphics Movement – Items Move* (none – every page); 11. *Graphics Movement - Animation Clip* (none – every page); 12. *Graphics Movement – "Flash" Technology* (none – every page).

D. ***Synchronous Interactivity:*** 13. *Online Chats*[78] *+ Topic Variety* (none – 10+; low – high); 14. *Polling Surveys*[79] *+ Topic Variety* (none – 10+; low – high).

in most cases the surfer begins to investigate the site – we chose to commence the list with this element and devote several variables to it, some of which are relevant only to the homepage (e.g., variable 5) and others that can be studied on other pages as well (e.g., variable 1).

76 Variables 6–8 could also be listed under the category "Design." We chose to leave them together here under "Contents" because these are important aspects of textual change and style of writing unique to the Web. See Jakob Nielsen, "How Users Read on the Web," *op. cit.*; Jakob Nielsen, "Measuring the Usability of Reading on the Web," *op. cit.* This is also the reason that variable 6 has not been placed among the elements common to both print and e-magazines.

77 In continuation of the previous note, in this "Design" element we decided to place only variables that relate to graphic design. Everything on a dynamic HTML page is an object that can move with the proper programming. Variable 9 relates to the ability of the surfer to enlarge all or some of the pictures (or parts of a picture). Variable 10 refers to short and permanent movement of a section, e.g., the site's logo flashing, while variable 11 relates to animation clips (permanent or changing). "Flash" (variable 12) uses sophisticated movement not found in the other variables.

78 Many magazines/newspapers have synchronous (real-time) chats that enable somewhat moderated but mostly free discussion with other readers. This service is built into the site and does not demand any special program or knowledge on the part of the participants.

79 Many sites run polls on sundry subjects, thereby reinforcing reader involvement. The results are ongoing so that the surfers can see the immediate effect of their vote – quite different from print media polling that has significant time delays in reporting the results.

E ***Asynchronous Interactivity****:* 15. *Online Forums*[80] *+ Topic Variety* (none – 10+; low – high); 16. *E-Mail*[81] *Between Writers and Readers* (none – every article).

F. ***Hyper-Text*** *(linking within and outside the site):* 17. *Horizontal Linking* (none – all articles); 18. *Vertical Linking* (none – all articles); 19. *Sub-Heading Links Within the Article* (none – all articles); 20. *Links to Other Sites* (none – all articles).

G. ***Search Engines*** *(internal and external):* 21. *External to Other Sites* (no – yes);

22. *Internal within the Site* (no – yes).

H. ***Frequency/Extent of Contents Updating/Changing Within the Same Issue****:*

23. *Frequency of Change Within the Same Issue* (none – four+); 24. *Extent of Change in Previous Variable* (none – most of the site); 25. *Difference in Frequency of Change Between Parts of Site* (no – yes).

I. ***Frequency/Extent of Graphics Updating/Changing from Issue to Issue***[82]*:*

26. *Frequency* (none – every new issue); 27. *Extent* (none – the whole site);

80 The forum is an asynchronous discussion group and/or bulletin board, occasionally moderated, so that the responses do not always immediately appear on the site. On rare occasions, the site will have an invited guest appear for an hour or two, announced ahead of time, in which case the forum becomes more synchronous.

81 To be sure, readers can send letters to a print magazine as well. However, e-mail changes the entire dynamics of such an exchange quantitatively and even qualitatively (quick editorial response), so that such bottom-to-top-to-bottom communication becomes an inherent part of the reading/surfing experience, an ongoing relationship between readers and writers.

82 Variables 26–28 were not placed in the overall category of "Joint Elements" (print and e-magazines) because the design changes are substantively different here, a result of each medium's different nature. Whereas print magazines very rarely change their overall design, overall Website design change is far more frequent, and specific design changes are constant – seen as part and parcel of contents change. All this because of the technical ease in which Web design changes can be undertaken as well as surfers' greater openness (even expectation) regarding such change.

28. *Difference in Frequency of Change Between Parts of Site* (no – yes).

J. ***Advertising & Classifieds***[83] *(existence and surfing disruption):* 29. *Banners* (none – every page); 30. *Pop-Ups* (none – every page); 31. *Flash Ads* (none – every page); 32. *Miscellaneous Ads* (none – every page); 33. *Surfing Disruption as a Result of Ads* (high disruption – none).

K. ***Archive*** *(accessibility and scope):* 34. *Exists* (no – yes); 35. *Ease of Access to the Archive* (complicated – easy); 36. *Scope of Contents* (much less than the original site – the whole site); 37. *Archived from the Start of the Site* (no – yes).

L. ***Video/Audio:*** 38. *Video Clips/Interviews, etc.* (none – large amount); 39. *Slide Presentations* (none – large amount); 40. *Audio* (none – large amount).

M. ***Quasi-Portal*** *(widening the magazine's framework)*[84]*:* 41. *Quasi-Portal* – e.g., index of sites, other magazines, etc. (no – yes).

N. ***Sending and Downloading Material:*** 42. *Icon for Printing* (none – all articles);

43. *Icon for Sending Article by e-mail* (none – all articles); 44. *Ability to Save Page to Hard Disk* [85] (none – every page); 45. *Download Audio File to Hard Disk* (no – yes); 46. *Download Video File to Hard Disk* (no – yes); 47. *Personalizing e-Newsletter – Choosing Topics to be Notified About* (no – yes); 48. (If "Yes") *Variety of "Editing" Possibilities* (very few – very many); 49. (If "Yes") *Ease of this Service* (not easy [over 7 steps] – very easy [2 steps]); 50. *Receiving Uniform Newsletter from the Site* (no – yes).

O. ***Following (Spying On) the Site's Surfers:*** 51. *Required Registration During Initial Entrance* (no – yes); 52. *Password to Enter* (no – yes); 53. *Automatic Identification and Surveillance* (no – yes, i.e., existence of "cookie" or other means of spying).

P. ***Shopping:*** 54. *Shopping Ability* (no – yes); 55. (If "Yes") *Ease of Shopping* (difficult [over 7 steps] – easy [up to 2 steps]).

Q. ***Payment for Site Access/Services:*** 56. *Payment for Access to Whole Site* (no – yes); 57. *Payment for Access to Certain Parts of Site* (no – yes); 58. *Added Services for Payment* (no – yes); 59. *Added Services for Free* (no – yes).

R. ***Technical Quality & Support:*** 60. *Surfing Speed*[86] (over 20 seconds from one page to another – up to 5 seconds); 61. *Technical Problems* (none – many);

62. *Technical Support* (none – very extensive).

S. ***Ease of Surfing and Orientation:*** 63. *Orientation Around the Site* (complicated – very easy); 64. *Automatic Jump from Bottom to Top of Page through Link* (no – every page); 65. *Automatic Jump to Homepage from any Page via Link* (no – every page). 66. *Site Index Linking to Other Pages* (no – every page); 67. *Site Map* (no – yes);

68. (If "Yes") *Map Orientation* (complicated – easy to use).

T. ***Community Communication:*** 69. *Reader Production of Contents* [e.g., blogs, talkback, camera-phone & text items from the field] (none – all possibilities).

70. *Signing Site Guest Book* (no – yes); 71. (If "Yes") *Incentive* (no – yes); 72. *Direct Connection to Editor* (no – yes); 73. *"About Us" – Site Information*[87] (no – yes); 74. *"What's New on the Site"*[88] (no – yes); 75.

83 The Internet enables ads using techniques not possible in print. Flash and pop-ups are clearly different than static print ads, but even banners are different as they usually have an internal rotation of several ads, each appearing in turn every few seconds. The banner too can use Flash or other technologies, not to mention some sites that match the banner to the specific surfer based on cookie identification. Variable 29 measures the number of banners and not the overall number of content messages found within them.

84 This means structurally and permanently widening the purview of the magazine, as a different content and commercial concept – not through temporary links (in articles) to other sites but rather within a framework that is structured from the start with other sites in mind, while retaining a focus on a specific topic area. For example, the magazines *Cosmopolitan* and *Good Housekeeping* are part of a women's portal entitled iVillage – despite each having its own e-address, staff, contents, etc.

85 In certain cases one cannot save an e-page or one can save only part of it (e.g., without picture, ads, etc.).

86 Based on regular speed (56K modem) and not broadband. Of course, this can also depend on time of day, day of the week and other technical aspects. In the future, when broadband becomes more common, this variable's indicators will have to be amended.

87 This is an important variable for e-magazines. It does not refer to basic information such as editorial names and titles, but rather to a wide-ranging "column" encompassing lots of information about the magazine, including its history, purposes and at times even what other media have written about it.

88 Many surfers enter the *same issue* several times (the same day or over the course of the month) so that the site must enable them to easily identify what has been

Automatic Translation of Contents to other Languages (no – yes); 76. *Privacy Policy Listed* (no – yes); 77. *"Write to Us"* (no – yes).

Joint Elements of Print & e-Magazines

U. ***Contents (Scope, Variety, Credits) & Advertisements:*** 78. *Scope – # of pages* (up to 50 – over 800); 79. *Regular Sections* (none – 16 and up); 80. *Variety of General Topic Areas* (none – 16 and up); 81. *Writers' Credits* (none – in all articles); 82. *Advertisements* (none – every page).

V. ***Design Complexity:*** 83. *Number of Pictures* (none – every page); 84. *Tables and Graphs* (none – every page); 85. *Design Variety – Different Graphic Elements on Page* (none – large variety); 86. *Design Density* (overly dense – clean and spacious).

W. ***Feedback/Communication:*** 87. *Address for Correspondence* (no – yes);

88. *Fax/Phone Number* (no – yes); 89. *E-mail address* (no – yes).

X. ***Target Audience:*** 90. *Target Audience Defined* (no – yes).

Y. ***Gifts and Discounts:*** 91. *Incentives For Readers/Surfers* (no – yes).

Elements Unique to Print Magazines

Z. ***Supplements:*** 92. *Separate Supplements* (no – yes); 93. *Print Catalogues Distributed* (no – yes); 94. *Distributing a Product Sample* (no – yes).

AA. ***Design Change:*** 95. *Paper's Overall Format Change* (none – yes).

BB. ***Article Length:*** 96. *Length of Articles* (over 1000 words – below 200 words).

Element Comparison of Same Brand: e-Mag and Print

CC. ***Identical Product:*** 97. *Same Cover Photo* (identical – totally different);

98. *Same Headlines* (all identical – none the same); 99. *Same Logo* (no – yes);

recently added: variable 74 (flashing "new"; prominently placing the date of the latest update, etc.).

100. *Same Contents* (all identical – none the same); 101. *Graphic Design Similarity* (totally identical – no similarity); 102. *Similar Advertisements* (all identical – none the same).

DD. ***Editorial Cooperation:*** 103. *Print Mag Points Readers to e-Mag* (no – yes/frequency); 104. *E-Mag Points Readers to Print Mag* (no – yes/frequency);

105. *E-Mag Enables Subscription to Print Mag* (no – yes); 106. *Cooperative Sections Between the Two Mags* (no – yes/how much); 107. *Subscription to Print Mag Enables Access to E-Mag* (don't need it – yes, for any e-material).

EE. ***Editorial Personnel:*** 108. *Both Mags have Same Editor* (no – yes); 109. (If yes) *Is the Editor's Column Identical?* (no – yes); 110. (If no) *Does a Different Editor's Column Appear in e-Mag?* (no – yes); 111. *Same Editorial and Writing Staff in Both* (mostly the same – mostly different).[89]

Conclusion

When a new medium enters the scene, there tends to be a lot of oohing and aahing about its amazing capabilities.[90] However, this does not in any way guarantee its quick success or even "correct" use in the early stages of development and diffusion. Indeed, the very wondrousness of the technology may tend to hide the more serious question of what society should be doing with it – and how best to utilize it.

The Internet and Web have not been immune to this. Indeed, it took over 20 years for the Internet (e-mail, forums, etc.) to begin to look like a true mass medium. The Web, commencing in the early 1990s, grew much more rapidly in the number of users (in part because of the earlier experience of the Internet), but this was not *because* of full use of its capabilities but rather *despite* those capabilities remaining mostly

89 We chose "mostly" and not "all" because the list of staff names is not always complete.

90 For an excellent illustration of the wide-eyed wonder in which most of our modern communication technologies were greeted, including telegraph, telephone, typewriter fax machine, home computer, and others, see: Merritt Ierley, *Wondrous Contrivances: Technology at the Threshold* (New York: Clarkson Potter, 2002).

dormant in most of the mainstream Websites, especially those involved in e-journalism.

Innis and McLuhan would not have been surprised at this "slow" pace, for they were well aware that full new-media utilization is a long-term process. However, in at least one sense, we are witness here to McLuhan being stood on his head. He emphasized how new media can revolutionize new ways of thinking; we suggest that no less valid is the dictum that *new ways of thinking can revolutionize new media*. In other words and in the final analysis, until producers *and/or users* learn how to make the most of the true capabilities of a new medium, it will remain "new" only in the technical – and not functional – sense.

In the more specific case of e-journals, we can expect to find that at this relatively early stage of the Web's young life, most magazines will display only a relatively small number of the elements that are unique to the medium. There are several reasons for this.

First, economic resources are limited, not only for new sites, but also for sites being set up by print magazines. Second, most of the users will be print magazine readers, generally conservative in their media consumption patterns. Third, early stages of a new medium are marked by much trial and error – the Webmasters as well as the editors are learning the ropes, not only regarding what can be technically done, but also what the readers want. Finally, print magazines "anchor" their daughter e-magazine within their own conceptual framework, so that such "dual magazines" suffer *naturally* from built-in editorial and design conservatism.

This last point leads to a second expectation: new e-magazines without print affiliation will utilize a wider array of Web traits than those with print magazine affiliation. This does *not* necessarily mean that they will be more commercially successful, because the affiliated magazines have a huge audience base from which to draw on as compared to new e-magazines that have to start from scratch. But if we ignore for a moment audience share and revenue, it stands to reason that the new e-magazines – unencumbered by historical (print) tradition – will be more likely to experiment with the new possibilities inherent in this multi-faceted, new medium. In any event, as our larger study found,[91]

91 Nava Cohen-Avigdor, "Utilizing the Special Abilities of the Internet...," *op. cit.*

this is not the case (at least regarding women's e-magazines). The major reason is quite banal: money. The print-based e-magazines have a much more solid financial base, and thus are able to invest far money in the technological infrastructure.

Whatever the nature of the financial backer, a promising possibility for both types is the use of the e-magazine to create and constitute the central axis for a virtual community around the main subject of the magazine. In this sense, the task of Website editors is different from their print counterparts. Whereas the latter use the magazine as a medium for *top-to-bottom* communication, the former use such content as a lever for *peer-to-peer* (forums, chats, instant messaging, etc.) as well as for *bottom-to-top* (i.e., reader to writer/editor) communication. The technical possibilities of interactivity on the Web change the *essence* of the magazine experience as well as its development.

Why development? Almost all mass media until now – and certainly those familiar to Innis and McLuhan – were basically uni-directional, i.e., messages were transmitted from content producers to audience consumers. This meant that the learning process of fuller new medium exploitation was a matter for the producers almost exclusively. There was little the TV viewer could do in the 1950s to change programming content other than switch between the few channels offered.

The Web, on the other hand, not only offers millions of programming possibilities so that audience choice is vastly greater and thus "readership ratings" more effective in influencing the production of content, but even more important is the highly interactive nature of the medium. This, in effect, turns surfers into "prosumers" (to use Toffler's famous term[92]), who can directly influence content production through ongoing interaction with the editorial staff as well as by independently setting up their own sites and actually producing content (e.g., blogging). To once again quote Levinson above: "we create it and remake it by using it."[93]

Given that their numbers are far greater than the sum total of professional e-content producers, and that many of them are inclined to be more adventurous and open to new possibilities than the "professional" producers (usually trained in some previous medium), one can expect

92 Alvin Toffler, *The Third Wave* (New York: Bantam Books, 1981): 11.
93 Levinson, *Digital McLuhan, op. cit.*, 6.

the learning curve to rise sharply in the years ahead. To that end, we trust that our taxonomy of e-magazine Website elements and variables constitutes a significant step towards such fuller exploitation of this truly revolutionary new medium – for producers and users alike.

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