Redefining Multimedia Toward a More Packaged Journalism Online

By Amy Zerba

Submitted to Fifth International Symposium on Online Journalism
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Abstract

This study shows how the concept "multimedia" online builds on the same meaning that predates computers. By examining previous uses of the word multimedia, deconstructing the concept into units and redefining the word to include multimedia journalists' use of the term, this study shows how the concept has moved toward a more packaged journalism online that includes interactivity.

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Introduction

Multimedia, like the term interactivity, is a word that is commonly used but has different meanings to different people. The word precedes the Internet and computers. Teachers have long since used the term to describe a teaching method that includes an additional medium, such as handouts and a film or a chapter in a textbook and a slideshow. Businesses embrace the word to mean information in more than one form, such as a book that comes with a CD-ROM or a cell phone with video. The media have coined the word to mean the integration of more than one medium, such as video and text. All of these definitions have something in common – more than one medium, hence the term "multimedia." But the Internet, specifically online news sites, is an environment that differs from all other media. Instead of delivering information in a way specific to one medium, such as radio and sound, it encompasses attributes from all media. This includes sound, moving images, animations, photographs, text, illustrations, graphics and interactivity.

This paper does not attempt to redefine the word "multimedia" for all its uses in all its environments. Instead, this paper focuses on what the term means for one group of people – multimedia journalists. Researchers and journalists both have difficulty defining the word as it pertains to online journalism. By deconstructing the word into units, examining uses of the word in previous studies and reshaping the definition to include multimedia journalists' use of the word, this study shows how the term "multimedia" on news Web sites builds on the same meanings and thinking that predate computers. The core idea of "multimedia," providing additional ways to learn related information, has remained. The concept, however, is moving toward a more packaged journalism, or what online journalists call "multimedia package."

This study examines the concept "multimedia package" by deconstructing the word "multimedia" at the surface level, referring to the representational aspect of the word (text, pictures,

audio, video, etc.). A Multimedia Package model was developed based on the ideas and themes that surfaced in interviews with multimedia journalists. The model shows how the concept has evolved into packaged journalism online. By re-examining the concept "multimedia" for news Web sites, future studies can have an operational definition to use and on which to build in studying multimedia storytelling.

Literature Review

A handful of researchers agree that "multimedia" means the integration of more than one medium (Hoogeveen, 1997; Perse & Greenberg-Dunn, 1998; Ruggiero, 2000). Hoogeveen (1997) defines multimedia as "the sense of property of a system or object, indicating that multiple perceptual representation media, such as speech, music, text, graphic still, animation and video, are used in an integrated manner." Multimedia merges "text and image, audio and video in a single, high-definition display" (Perse & Greenberg-Dunn, 1998). Multimedia uses computers to present text, graphics, video, animation and sound in an integrated way (Ruggiero, 2000). All of these definitions break down the concept into a single unit, or medium, to show how multimedia uses multiple senses and multiple channels of storytelling. To conceptualize the concept of multimedia, one must first deconstruct the word into its smallest unit.

What is a Medium?

A medium is a means of communication, a tool, to transmit a message, or a collection of messages, through a single means or through mass media channels to inform an audience of an event, story or information. For example, a photograph is a medium. Other media include text, graphics, illustrations, audio and video, all ways to report information or describe a story or event for an audience. Just as a photograph is a medium, a newspaper, a collection of mediums, also is a medium, or mass medium, for it reaches a large, distant audience. Both are called a "medium" because they

deliver a message, or messages, to an audience. Other "collective" media include television, books, magazines, film, radio and the Internet. Media offer ways to understand information. This response to a medium is a central premise to the adage "the medium is the message," by McLuhan (1964), in which the "content" of the medium is what one does with it – the understanding, the connection, the entire thought process. McLuhan proposed that the communication process differs by medium. Bennett, Swenson and Wilkinson (1992) tested McLuhan's theory by analyzing audience member's curiousity of morbid news after seeing morbid and non-morbid news stories on video, in photographs only or in print news reports. The researchers found no supporting evidence that television evokes greater curiousity about morbid events than either print or still images. To which they concluded, the medium is not the message.

Contrary to McLuhan, a message can be information transmitted from a sender to a receiver, according to Shannon and Weaver's communication model (1959). This model begins with an information source that produces a message or sequence of messages (Shannon, 1959). The message is then transmitted in the form of a signal via a channel that reaches a receiver, which reconstructs the message for its final destination, the audience (Shannon). Rogers (1983) defines mass media channels as those "means of transmitting messages that involve a mass medium, such as a radio, television, newspapers, and so on, which enable a source of one or a few individuals to reach an audience of many." The Internet can take on the traditional two-step flow model or take on entirely new communication patterns. Morris and Ogan (1996) describe how senders and receivers can have one-to-one asynchronous communication (i.e. email), many-to-many asynchronous communication (i.e. bulletin boards and listservs), synchronous communication that can be one-to-one, one-to-few, or one-to-many and can be organized around a topic (i.e. video conferencing, chatrooms), and asynchronous communication that is many-to-one, one-to-one or one-to-many (i.e. Web sites, FTP sites).

There are two types of media – static and dynamic. A static medium conveys information but does not move in time or space. Static media are text, pictures, graphics and illustrations. Dynamic media move forward in time and space, such as video, audio and animation. They typically are pushed at the user. Multimedia consists of more than one medium, whether it is a combination of static media, dynamic media or one or more of each.

This definition of more than one medium is not new. But do the media that make up the concept "multimedia" prior to computers also make up the word "multimedia" on news Web sites? This study specifically asks multimedia journalists, what is a multimedia feature?

Interactivity and Multimedia Are Not the Same

Interactivity is not synonymous with multimedia. Instead, interactivity is more of an attribute to multimedia. Interactivity is a concept that people know what it is when they see it (Rafaeli, 1988), but then everyone has their own idea about what interactivity is. The term is complex and varies in degree. The study of interactivity is rooted in face-to-face interaction and is present in traditional media. Newspapers include writers' email addresses and letters to the editor. Radio shows take calls from the audience and television newscasts read emailed responses on air, to name a few. The audience is active in receiving and giving information, whether it is clicking on links to get to stories, responding to a blog, using a bulletin board on the site, contributing to a Web chat with writers or sources in stories, voicing opinions in discussion groups or filling out opinion polls or surveys online. Communication scholars agree that a related response component in the communication exchange is needed to be considered interactive and interactivity can have variations (Tremayne & Dunwoody, 2001; Downes & McMillan, 2000; Ha & James, 1998; Rafaeli & Newhagen, 1996; Heeter, 1989; Rafaeli, 1988). These varying degrees could be how much users are involved or engaged in modifying the form and content of a mediated environment in real time (Steuer, 1992).

Interactivity is the extent to which communication reflects back on itself, feeds on and responds to the past (Rafaeli & Newhagen, 1996). In defining interactivity, Rafaeli (1988) places more emphases on the messages and their relation to previous ones. He writes, "Interactivity is an expression of the extent that in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions (p. 111). Rafaeli's definition discredits the idea that the entire Internet is interactive. A user (the receiver) may go to a Web site (the sender), read the information provided, and then do nothing. This is one-way, noninteractive communication, or what McMillan (2002) calls "monologue" communication. The receiver will not receive a related response because nothing was requested. Clicking on a link on that Web site so as to take the user to a related Web page would be the start of communication exchange. This is interactivity in its least active form, or what Rafaeli (1988) calls reactive communication. But Tremayne and Dunwoody (2001) argue this type of reactive communication is not fully interactive because the second party may not receive a response in return. Schultz (2000) interviewed 100 readers who posted messages on online forums on NYTimes.com, and three-fourths of them could not remember receiving feedback from the New York Times staff. The communication stopped at two-way, with the news site offering a forum and the readers' posting comments to the staff. The news staff, according to most of the respondents, did not continue the dialogue. A simple example of a "response in return" is if a user types in a string of words (a message) in a search engine, then sends the request to a server (the receiver), and the server displays the results of the search (Tremayne & Dunwoody).

The simplest level of interactivity on the Internet is hyperlinks, which are clickable features that allow readers to go beyond daily news to view other information on related subjects or background information (Peng, 1999). Hyperlinks allow users to read background information or side stories on related subjects. In an experimental study by Ketterer (2001), users spent more time with stories with four links of related information than groups with two or no additional links. They

were significantly more satisfied with the amount of information presented than they were with stories with no links.

Interactivity is multidimensional (Heeter, 1989; Downes & McMillan, 2000). Heeter defines interactivity as having six dimensions: how much choice users are provided with, the effort that users must exert to access information, the degree to which a medium can react responsively to users, how user selection of information can be monitored, ease of adding information by users and the degree of interpersonal communication between two people or among a small group. Downes and McMillan define interactivity as a continuum with message-based and participant-based dimensions, which accounts for the varying degrees of interactivity on Web sites. The message-based dimensions are the nature and direction of the messages, the importance of time to message structure and retrieval, and sense of place. The participant-based dimensions are control, responsiveness and perceived goals. For example, a searchable database with rich content may have low values of message-based dimensions but high values of participant-based dimensions.

Multimedia Before Computers

Multimedia is typically associated with computers. However, the concept predates this technology. Historically, multimedia use, or the idea of using more than one medium to deliver information, is rooted in giving people additional or alternative ways to learn information. Educators acknowledge that students have different learning styles. Some learn visually, others aurally and some kinesthetically. A 1956 index of doctoral dissertations related to audio-visual education showed 39 doctoral dissertations written on the subject prior to 1936 (Moldstad, 1956). This figured doubled by 1950. After World War II, the use of audio-visual materials in education and the research that followed was on the upswing (Moldstad). Moldstad writes, “The effective utilization of all types of audio-visual materials and equipment by the Armed Forces had convinced many present and future educators of the educational potential of these new materials” (p291). Early researchers examined

pictures, graphics, film, television and slideshows with sound as instructional aids in the classroom. By adding other media and having students' express themselves using alternate media, Eliot Hurst (1973) envisioned entire "packages" created and recreated by students. This would allow instructors to take on a guiding role versus lecturing or preparation duties, and the student would be essentially creating the course (Eliot Hurst).

Studies have shown that readers recall more story information from text versions than other media, such as audio or video, or combination of media (Sundar, 2000; DeFleur M. L., Davenport, Cronin & DeFleur, M.,1992). However, adding media, or additional cues, does increase comprehension of content. Studies have confirmed that including images with text enhances comprehension (Mayer, 2003; Lewalter, 2003; Tiene, 2000; Griffin & Stevenson, 1992;). The redundancy theory suggests that information presented in several different ways, such as text and audio or text and photographs, contributes to remembering a story because of cognitive rehearsal. A study by Drew and Reese (1984) showed children remember more stories from a newscast with film than those without film, in which a newscaster reads the story. Graber (1984) cautioned that redundancy also can lead to "closure," in which the mind ignores the news story or the lessons that the news story teaches. The cue-summation theory suggests that images placed alongside of text act as learning cues to help the reader understand the story (Severin, 1967). Lewalter (2003) explored the equality of effectiveness of dynamic and static media in supporting the learning process and found neither was superior.

From the Classroom to News Web Sites

Multimedia journalists can spend a few minutes to more than a year writing, shooting, recording, designing and producing a multimedia package for a news site. Pavlik (1997) saw hints of original online news content coupled with experimental forms of storytelling beginning

to emerge in 1997 on a handful of sites. Now multimedia features on news sites appear to be slowly becoming an everyday feature on some sites. More emphasis is typically placed on longer, more in-depth stories. Thematic storytelling places issues and events inside a general theme or trend whereas episodic storytelling treats an event as a single story, such as a robbery or meeting. Including multimedia with breaking stories is slowly becoming easier but can be time-consuming in the newsgathering and production stages. In thinking about coverage of stories, multimedia journalists must decide when to use audio or visuals to tell a story. Overall, multimedia journalists must repeatedly ask, what is the purpose of multimedia? This study asks multimedia journalists to reflect on this decision-making process.

In summary, this study asks multimedia journalists:

RQ1. What is a multimedia feature?

RQ2. What is a multimedia package?

RQ3. What can multimedia online give readers that they cannot get from reading text?

Method

Seven multimedia journalists were interviewed by phone to understand what the term "multimedia" and "multimedia package" means. Deuze defines an online journalist as a professional performing a journalistic task, which includes one of the four selected journalistic "core" activities: news gathering/research, selecting news, writing/processing and editing, within and for an online publication (1999). A multimedia journalist performs these same tasks using additional media for the online publication. A multimedia journalist and online journalist can be one in the same depending on the size of the staff.

A set of open-ended questions was devised to guide the interviews, each of which lasted between 45 minutes and two hours over a four-week period in September and October 2002. All seven interviewees are online journalists who work specifically with multimedia every day. These

multimedia journalists were chosen using a snowball method in which one journalist would name another online journalist to speak to next. The multimedia journalists were Tom Kennedy, director of photography and design at Washingtonpost.com; Joe Weiss, multimedia editor at the Herald-Sun in Durham, N.C.; Jane Stevens, freelance multimedia journalist and multimedia lecturer at UC-Berkeley; Mark Adams, former multimedia editor at Myrtlebeachonline.com in Myrtle Beach, S.C.; Naka Nathaniel, multimedia editor at NYTimes.com; John Vandewege, manager, editorial multimedia at LATimes.com; and Scott Horner, assistant graphics director at the South Florida *Sun-Sentinel*. The journalists work on large staffs to one-person staffs. Each journalist had to be involved in the brainstorming of ideas, producing, editing and/or the teaching of multimedia storytelling on a daily basis.

The drawback to using the phone versus face-to-face interviews is the lack of nonverbal communication. Also, how open these journalists were during the phone interviews was harder to grasp. Over the phone, the rapport is more difficult to build without seeing the person face-to-face. Despite these challenges, phone interviews were the most cost-effective for the understanding of a concept, and observation was not necessary for this study.

Results

When asked what online features would fall under the category "multimedia," nearly all seven journalists mentioned text, pictures, audio, video and graphics. The answers represent tangible media that users can see, hear and watch. Perhaps their answers were an automatic response to what appeared to be an easy question on the surface. The journalists were then asked to comment further using the following two examples: Would an interactive geographical map without sound be considered multimedia? Would a photo slideshow without audio be defined as multimedia? Using real examples of what is assumed to be multimedia allowed for applied thinking on the spot. These examples also included an interactive feature, instead of a second medium, to see if the component of

interactivity makes something multimedia. The purpose of this question was to get a strong understanding of what constitutes a multimedia feature. A sampling of the answers shows a hint of uncertainty.

> Journalist 1: If you are talking about [a map] just by itself, just clicking on the thing, I think that's one of the elements that's used in multimedia. But by itself, but I guess, yeah. If you just had a map that you could click and move in on I don't think I'd call that multimedia. It's more just an interactive map. But it can be a component within a multimedia presentation.
>
> Journalist 2: [The map] would be, say if you had, it would be part of it [multimedia presentation].
>
> Journalist 3: Yeah, I think so. [The map is] probably one of the more cruder forms of it, but yea.
>
> Journalist 4: I probably would if we were just sort of delineating the work of the world for a contest or something. I probably would consider [the map] multimedia. But again, I guess I would consider that.
>
> Journalist 5: Since anything that almost falls under my realm of what I consider to be multimedia, in this case, I would have to say yes. I mean, technically, it's not, technically, it's just one thing.

Why the uncertainty? The field still is considered too new, according to the journalists. The answers suggest that an interactive map or slideshow beg to be put into something bigger, like a related package. Interestingly, all the journalists mentioned interactivity as a multimedia feature. Kennedy, director of photography and design at Washingtonpost.com, differentiates multimedia with and without interactivity as:

> You can have multimedia that's the form of storytelling but it's still primarily a way of delivering content that is pushed at the user rather than having a lot of heavy user involvement. And then interactivity, I think, is a dialogue in a sense about a story in which the user is a very potent part of the conversation (T. Kennedy, personal communication, October 18, 2002).

When defining multimedia package, the words "integration" and "combination" were used alongside of "more than one medium" or "various mediums" to describe a multimedia package. But

each medium has to connect to another medium in a context. These journalists agree that multimedia features must complement the story and each other. Vandewege of LATimes.com describes a multimedia package as capturing every side of a story – with audio, visually and textually (personal communication, October 23, 2002). He adds that these multiple viewpoints must complement the main story. Overall, a "good" multimedia package is one in which everything comes together – the video, the audio, the text, pictures, graphics and interactivity – the quality of the story. Stevens, a multimedia lecturer at UC-Berkeley, added characteristics of nonlinear, nonredundant and context, or what she calls a shell.

> What the New York Times and the Washington Post did a year later, they redesigned their whole 9-11 site and America at War and all of that. So that you could read the story of the day, whatever commemorations were taking place, but then you could go back, you could see what happened that day, or you could go into other areas, like what is happening in Afghanistan. … Did they ever find out who sent that anthrax letter? So that the stories which would appear in newspapers or in TV, they would just come and go. In multimedia, they work best if they're part of a greater whole or the universe of this topic and so that also induces people to explore or to keep going in a story. (J. Stevens, personal communication, October 25, 2002).

All of the journalists mentioned interactivity with a few describing the various levels – from simple hypertext to a virtual voting machine (http://www.sun-sentinel.com/broadband/theedge/). These journalists acknowledged that user choice is a part of the decision-making in building packages. But few used the textbook word "nonlinear." Nonlinear, for these journalists, means "personalized," nonpassive storytelling that offers "different paths" or avenues from which "users choose."

But what can multimedia give readers that they cannot get from reading text? The main purpose of multimedia on news Web sites, according to these journalists, is to offer users different ways to process information, or that extra little bit of knowledge, so that users can understand a story

better. Some users prefer to hear a story or watch a story instead of reading heavy text, features that take into account different learning styles, the original purpose of multimedia.

By examining the descriptive words used in their interviews, two additional functions for multimedia surfaced – a heightened user experience and an extension of reporting. With each story, multimedia journalists must decide when to add audio, video, graphics and photographs. This decision is based on several questions, will this medium *enhance* the story? Make it *better*? More *real*? or *impact* viewers more? This function of multimedia – a heightened user experience – repeatedly surfaced when these journalists recounted stories of the feedback they received from a user.

> I got this email before that said, "I'll never look at a computer the same way again." And I was like, that's staying with me for six more months, just because. And I know what that woman was looking at. It was the Nicaragua story – a child dies. … For some people this was the first emotional experience they've ever had with a computer that didn't involve a member of the family or email with a grandfather, and that's sort of a new thing. But most of it is sort of like, 'this was really great. I wish I could see more' (J. Weiss, personal communication, September 27, 2002; Touching Hearts Story: http://www.heraldsun.com/heart/).

The word "engaging" was repeatedly used to describe multimedia content – the idea of drawing the user into the story to see what words cannot describe and to connect to the story. These journalists described multimedia on news Web sites as: vivid, real, amplified, rich, enjoyable, intimate, entertaining, easy to understand and packed with emotion.

The second function, extension of reporting, refers to telling the visual and audio side of a story. These journalists must decide, will the second medium *contribute* to the story? *Complement* it? Does the story *merit* this feature? Weiss, a multimedia editor at the Herald-Sun in Durham, N.C, says the decision will be obvious.

> I did a story about an Elvis impersonator or an Elvis tribute artist, he doesn't like to be called impersonator, but that had to be done in video. I mean I couldn't see that any other way. You had to see this guy move. And so, it doesn't feel like it's actually a decision, it just sort of feels like well, that's the way I should have done it. (J. Weiss, personal communication, September 27, 2002).

Discussion

The term "multimedia feature" is often used to describe a medium – text, audio, video, graphics and photographs – *and* a characteristic of itself – interactive or nonlinear, characteristics referred to in this study. The concept has dual meanings. The meaning of the word is known when it is used, as a noun or adjective. For example, text and audio is multimedia. However, someone may describe an interactive map as multimedia, mainly because of the interactive component. Interactivity gives users a second way to take in information, kinesthetically, or learning by doing. The purpose of multimedia – giving users additional ways to understand information – has not changed with the introduction of computers. Technically, the question posed could have been rephrased as, "What is a medium?" to get at the root of the word multimedia and this could have produced some deep-rooted answers as to what a medium does. The term "multimedia feature" was chosen because it is work-related word used in newsrooms. The answers to "What is a multimedia feature?" still produced a commonly understood media list. Each medium listed was tangible, meaning it can be seen or heard. Other possible "multimedia" features, such as databases, PDF documents, blogs, diaries, polls, surveys, quizzes, games and forums, were not mentioned as multimedia features. Logistically, all of these features are built using text as the medium, but there is the added component to most of them – interactivity.

Interactivity was repeatedly mentioned in all of the interviews. Inherently, multimedia is built on the concept of interactivity, or choice. A user chooses to click on a hyperlink or hear audio or watch video. There are very few instances in which an online user is forced to hear or watch an additional medium. An example of an exception would be pop-up ads with video or sound that

Fig. 1.1 Non-Computer Model of Multimedia

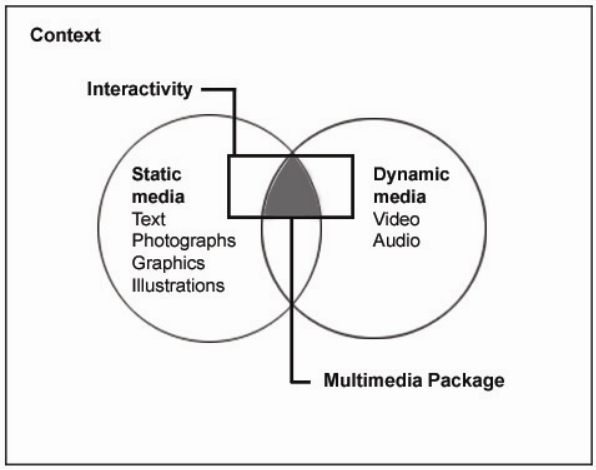
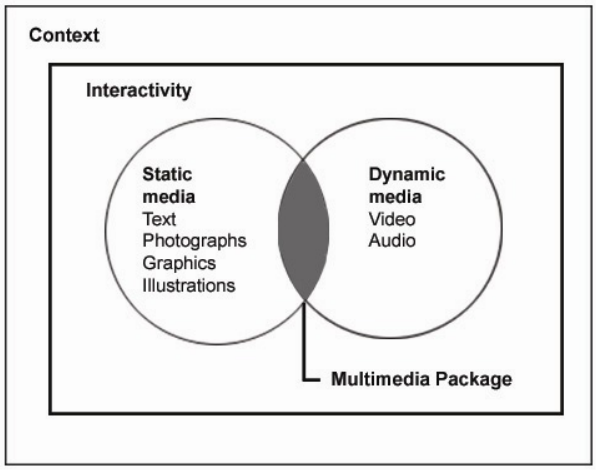


Fig. 1.2 News Web Site Model of Multimedia



automatically play. The online environment gives the audience more choices than any other medium – radio, television and print – and many times the sender, or news site, cannot control the individually chosen paths taken in a story. These multimedia journalists want the individual user to mix the navigational options and create a personalized experience in understanding the information or story.

Based on previous uses and studies of the word multimedia along with interviews by these seven multimedia journalists, the following definition for "multimedia package" was devised:

> A multimedia package is the integration of more than one medium in combination with interactivity that is related to a story, event or information.

Figure 1.1 shows a non-computer model of multimedia. Multimedia can be the combination of static media, such as text and a map. This is arguably the basic level of multimedia because it offers two ways to digest information. One could argue that a textbook with photographs is not multimedia. However, the premise behind multimedia is giving individuals additional ways to learn information, and even more importantly, remember this information. A photograph is a medium. Text is a medium. At its simplest level, multimedia can be text and pictures.

Multimedia can be more than one dynamic medium, such as video and audio. An example of this would be a video news clip with a voice-over. Non-computer multimedia is typically thought of as the combination of static and dynamic media. A language teacher may include audio with textbook reading so students not only see how new words are used and spelled in sentences but hear how these words are pronounced. If the audio allows for students to repeat the words or phrases, this adds the feature of interactivity. Related audio, text and interactivity are an example of a multimedia package. Multimedia packages offer three or more ways to learn information – by seeing, hearing and doing. Examples of multimedia packages include video games, DVDs and television newscasts with voice-overs and textual news tickers, to name a few. Interactivity, however, is not a required component for non-computer multimedia.

Multimedia must have context. This has not changed. Video that is unrelated to text cannot be multimedia. In this case, they are each an individual medium. This has not changed from the pre-computer era to now. Fig. 1.2 shows how context still applies to multimedia on news Web sites. Stevens says redundant and non-related material, such as b-roll, as an additional medium make for poor multimedia on news Web sites.

> For example, if you're doing a science story and you're interviewing someone in the lab, you can show any lab procedure in the lab and it doesn't necessarily have to do with anything with that particular story you're talking about, it's just lab stuff. Anything moving in that lab is fair game. But if you're doing a multimedia piece [for online] and you show that b roll it's got to be pertinent to what you're talking about or else people aren't going to stick with it (J. Stevens, personal communication,).

Fig. 1.2 shows how multimedia from pre-computer days has evolved into multimedia on news Web sites with the *required* component of interactivity. For computers to do something, a user must send a command for a related response to occur. This introduces interactivity at its most basic level, or dialogue. These journalists agree that interactivity is a characteristic of multimedia on news Web sites. Users choose to read, see, listen, watch or click through additional media. Multimedia

features on news Web sites can be thought of as additional ways to understand a story or information. Interactivity at its simplest level is one or more hyperlinks to a related text story. Fig. 1.2 shows how multimedia on news Web sites can be a story with a related photograph (static media) and a hyperlink (interactivity) that brings up a related textual story or other medium (context). This is multimedia on news Web sites at its most basic level. Multimedia on news Web sites can be a combination of dynamic media and interactivity with streaming newscasts, such as ESPN's Live Motion (http://msn.espn.go.com/) or ABC News Live (http://abcnews.go.com/). These newscasts with voice-overs are pushed at the user, only after the user chooses to watch them (interactivity).

These multimedia journalists strive to reach the advanced level, or Multimedia Package, in which static media are combined with related dynamic media to tell a story in an interactive way. This is the ideal multimedia package because, like the non-computer model of a multimedia package, it taps into additional ways of learning – seeing, hearing and doing. Multimedia journalists have moved from thinking about the inclusion of individual multimedia features on their sites to ways of packaging these features with stories. Like multimedia, the idea of packaged journalism is not new. Print designers strive to package related sidebars, illustrations, graphics and photographs in layouts. Radio reporters collect sound bites and natural sound with copy to produce a story or piece. Television journalists gather video clips, graphics, interviews and b-roll in addition to voice-overs to create news packages. Packaged journalism online gives users alternative ways to understand a story while extending the coverage of the story and heightening the users' experience. These journalists agree that each medium that makes up a multimedia package should complement each other and the story. Having a photo gallery of a news event without a related story seems illogical almost. (J. Stevens, personal communication, October 25, 2002). A type of "Day in Photos" gallery, however, is an exception to the norm. But why? A day-in-photos gallery allows users to click from photo to photo, skip pictures or simply watch as photos are pushed at them with Flash. Photo galleries can be a type of wire roundup of the days' events locally, nationally and/or internationally or a storytelling

device. Stand-alone photo galleries have captions (text), photographs and interactivity – all components of a multimedia package.

Packaged journalism online has evolved into higher quality multimedia and even more detail, with fewer talking head videos and audio for the sake of audio. A few of these journalists refer to the *art* of multimedia as the picking of media, the editing, the production, the creation, grabbing the users' attention, the inclusion of various navigational paths, and ultimately the storytelling.

> You just try to put the most powerful vivid experience up front to grab a hold of people and then you try to shape a narrative art through the remainder of the content that makes sense and conveys the essence of the story and takes people for a ride through the story so that they come out at the other end having had an experience and feeling like they've gained some knowledge from having taken the journey (T. Kennedy, personal communication, October 18, 2002).

Conclusion

This study shows how the core concept of multimedia has not changed from the non-computer era. Multimedia, or the integration of more than one medium to deliver information, offers people additional ways to understand content. Interactivity is not a required component of multimedia in a computer-less environment. However, interactivity is a required feature of multimedia on news Web sites, in addition to more than one medium.

This study does not attempt to redefine multimedia for all sites on the Internet, just news sites. The reason behind this decision was that the Internet is an unpredictable, inconsistent, complex landscape with many producers of information with different goals. Perhaps, future studies could tackle the larger picture of multimedia on the Internet. Instead, this study focuses on a particular type of site – news sites – and the multimedia journalists who produce content for such sites. Multimedia on news Web sites has become a more packaged journalism online with the purpose of giving users additional ways to understand information, extending coverage and heightening the users' experience in taking in a story. The characteristics of a multimedia package are: more than one medium, interactivity and related context.

Little research has been conducted regarding multimedia journalism. Its existence on news Web sites is becoming more popular by the day. What makes this type of storytelling so powerful is that, if done successfully, it could draw non-readers to news Web sites. Multimedia on news sites also could accommodate different learning styles. But what makes multimedia successful? This type of journalism still is considered new by even those journalists who work with multimedia every day. Multimedia journalists can spend a few minutes to more than a year producing a multimedia package for users. But are users catching on to this new way of storytelling online? And most importantly, are users learning information with these added features? This study provides a starting point, or definition, on which to build for future studies.

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