The New Media Technologies

Akpan Uduak

Department of Mass Communication Akwa Ibom State University, Nigeria.

ABSTRACT

The so-called new media technologies often referred to as Web 2.0 encompass a wide variety of web-related communication technologies, such as blogs, wikis, online social networking, virtual worlds and other social media forms. First, we present several views or perspectives that may be used to answer the question, "what is new media?" Then we examine and review five critical characteristics of the new media technolgies – the Five C's: communication, collaboration, community, creativity, and convergence. Finally, we look at some of the uses and applications of new media in a selection of disciplines. This overview provides a much needed framework for scholars and educators who wish to learn from and contribute to this field of study.

Keywords: Media technologies, Web 2.0, communication, networking and social media

INTRODUCTION

New media is a catch-all term used for various kinds of electronic communications that are conceivable due to innovation in computer technology [1,2,3]. In contrast to "old" media, which includes newspapers, magazines, books, television and other such non-interactive media, new media is comprised of websites, online video/audio streams, email, online social platforms, online communities, online forums, blogs, Internet telephony, Web advertisements, online education and much more [4,5]. It is not very easy to draw the line between new and old media because the so-called old media has found new ways of representation in digital forms, leaving behind its conventional methods of representation [6,7]. New media is considered to be the multimedia and digital form of communication happening via desktop and laptop computers, as well as phones, tablets and other devices. New media has introduced user interaction, rather than simply consuming media. New media can be customized to the users' preferences and it can selectively link from one form of content to another [8,9,10]. New media are forms of media that are computational and rely on computers for redistribution. Some examples of new media are computer animations, computer games, human–computer interfaces, interactive computer installations, websites, and virtual worlds [11]. New media are often contrasted to "old media", such as television, radio, and print media, although scholars in communication and media studies have criticized inflexible distinctions based on oldness and novelty [12,13]. New media does not include analog broadcast television programs, feature films, magazines, or books – unless they contain technologies that enable digital generative or interactive processes people in a specific area will often see only the partial effect of the new media revolution [14]. Thus, for example, a newspaper reporter might note the importance of blogs; a television producer might be interested in the movement away from network television to online TV (e.g., watching a full episode on nbc.com); and so on [15]. This brings to mind the Indian parable of the six blind men who went to "see" the elephant. Each blind man analyzed only that portion of the creature which he touched: The side was like a wall; the tail was like a rope; the trunk was like a snake, etc. Each of them was right and, of course, each was completely wrong [16]. The purpose of this paper is to review this so-called new media revolution as a "whole creature" and to

attempt to provide a framework of sorts for the purposes of further examination of this phenomenon. We are all affected by the new media. It is not just a small effect here and a small effect there [17]. The new media are dramatically influencing virtually every business, every organization, and every discipline. It is hoped that the overview presented here can serve as a researchframework for scholarship in this area. This paper is

organized as follows: First, we present several views or perspectives that may be used to answerthe question, "What is New Media". Then we examine and reviewthe characteristics of new media [18]. Finally, we look at some of the uses and applications of new media in a selection of disciplines. Looking back history also can tell much about the advent of the new media [19,20,21,22,23,24,25].

HISTORY

In the 1950s, connections between computing and radical art began to grow stronger. It was not until the 1980s that Alan Kay and his co-workers at Xerox PARC began to give the computability of a personal computer to the individual, rather than have a big organization be in charge of this [26,27]. "In the late 1980s and early 1990s, however, we seem to witness a different kind of parallel relationship between social changes and computer design [1]. Although causally unrelated, conceptually it makes sense that the Cold War and the design of the Web took place at exactly the same time. Writers and philosophers such as Marshall McLuhan were instrumental in the development of media theory during this period. His now famous declaration in *Understanding Media: The Extensions of Man* [4], that "the medium is the message" drew attention to the too often ignored influence media and technology themselves, rather than their "content," have on humans' experience of the world and on society broadly. Until the 1980s media relied primarily upon print and analog broadcast models, such as those of television and radio. The last twenty-five years have seen the rapid transformation into media which are predicated upon the use of digital technologies, such as the Internet and video games. However, these examples are only a small representation of new media. The use of digital computers has transformed the remaining 'old' media, as suggested by the advent of digital television and online publications. Even traditional media forms such as the printing press have

been transformed through the application of technologies such as image manipulation software like Adobe Photoshop and desktop publishing tools [9]. [7], argues that the "emergence of new, digital technologies signals a potentially radical shift of who is in control of information, experience and resources [8]. [10], suggests that whilst the "new media" have technical capabilities to pull in one direction, economic and social forces pull back in the opposite direction. According to Neuman, "We are witnessing the evolution of a universal interconnected network of audio, video, and electronic text communications that will blur the distinction between interpersonal and mass communication and between public and private communication" [8]. Neuman argues that new media will:

- Alter the meaning of geographic distance.
- Allow for a huge increase in the volume of communication.
- Provide the possibility of increasing the speed of communication.
- Provide opportunities for interactive communication.
- Allow forms of communication that were previously separate to overlap and interconnect.

Consequently, it has been the contention of scholars such as Douglas Kellner and James Bohman that new media, and particularly the Internet, provide the potential for a democratic postmodern public sphere, in which citizens can participate in well informed, non-hierarchical debate

pertaining to their social structures. Contradicting these positive appraisals of the potential social impacts of new media are scholars such as Edward S. Herman and Robert McChesney who have suggested that the transition to new media has seen a handful of powerful transnational telecommunications corporations who achieve a level of global influence which was hitherto unimaginable. Scholars, such as [15], have highlighted both the positive and negative potential and actual implications of new media technologies, suggesting that some of the early work into new media studies was guilty of technological determinism – whereby the effects of media were determined by the technology themselves, rather than through tracing the complex social networks which governed the development, funding, implementation and future development of any technology. Based on the argument that people have a limited amount of time to spend on the consumption of different media, Displacement theory argue that the viewership or readership of one particular outlet leads to the reduction in the amount of time spent by the individual on another. The introduction of new media, such as the internet, therefore reduces the amount of time individuals would spend on existing "old" media, which could ultimately lead to the end of such traditional media [9].

DEFINITION

Although there are several ways that new media may be described, Lev Manovich, in an introduction to *The New Media Reader*, defines new media by using eight propositions:

1. New media versus cyberculture – Cyberculture is the various social phenomena that are associated with the Internet and network communications (blogs, online multi-player gaming), whereas new media is concerned more with cultural objects and paradigms (digital to analog television, smartphones).

2. New media as computer technology used as a distribution platform – New media are the cultural objects which use digital computer technology for distribution and exhibition. e.g. (at least for now) Internet, Web sites, computer multimedia, Blu-ray disks etc. The problem with this is that the definition must be revised every few years. The term "new media" will not be "new" anymore, as most forms of culture will be distributed through computers.

3. New media as digital data controlled by software – The language of new media is based on the assumption that, in fact, all cultural objects that rely on digital representation and computer-based delivery do share a number of common qualities. New media is reduced to digital data that can be manipulated by software as any other data. Now media operations can create several versions of the same object. An example is an image stored as matrix data which can be manipulated and altered according to the additional algorithms implemented, such as color inversion, gray-scaling, sharpening, rasterizing, etc.

4. New media as the mix between existing cultural conventions and the conventions of software – New media today can be understood as the mix between older cultural conventions for data representation, access, and manipulation and newer conventions of data representation, access, and manipulation. The "old" data are representations of visual reality and human experience, and the "new" data is numerical data. The computer is kept out of the key "creative" decisions, and is delegated to the position of a technician. e.g. In film, software is used in some areas of production,

in others are created using computer animation.

5. New media as the aesthetics that accompanies the early stage of every new modern media and communication technology – While ideological tropes indeed seem to be reappearing rather regularly, many aesthetic strategies may reappear two or three times ... In order for this approach to be truly useful it would be insufficient to simply name the strategies and tropes and to record the moments of their appearance; instead, we would have to develop a much more comprehensive analysis which would correlate the history of technology with social, political, and economical histories or the modern period.

6. New media as faster execution of algorithms previously executed manually or through other technologies – Computers are a huge speed-up of what were previously manual techniques. e.g.calculators. Dramatically speeding up the execution makes possible previously non-existent representational technique. This also makes possible of many new forms of media art such as interactive multimedia and video games. On one level, a modern digital computer is just a faster

calculator, we should not ignore its other identity: that of a cybernetic control device.

7. New media as the encoding of modernist avant-garde; new media as metamedia – Manovich declares that the 1920s are more relevant to new media than any other time period. Metamedia coincides with postmodernism in that they both rework old work rather than create new work. New media avant-garde is about new ways of accessing and manipulating information (e.g. hypermedia, databases, search engines, etc.). Meta-media is an example of how quantity can change into quality as in new media technology and manipulation techniques can recode modernist aesthetics into a very different postmodern aesthetics.

8. New media as parallel articulation of similar ideas in post–World War II art and modern computing – Post-WWII art or "combinatorics" involves creating images by systematically changing a single parameter. This leads to the creation of remarkably similar images and spatial structures. This illustrates that algorithms, this essential part of new media, do not depend on technology, but can be executed by humans [12,14,16,17].

THE NEW MEDIA: SOME PERSPECTIVES

How does one explain what is meant by the term new media? Sometimes, it is as simple as enumerating the many specific examples that come to mind. Thus,

Q: What is new media? A: Blogs, wikis, facebook, mashups,

amazingly, enumeration turns out to be a pretty good way to explain to folks what is meant by the term new media. Listed in Table I are some examples of the new media and where to find them [9].

TABLE I: Some of the New Media

Blogs:	Blogger.com; technorati.com
Social networking:	Myspace.com; facebook.com; friendster.com
Social bookmarking:	del.icio.us
Wikis:	Wikipedia.com
P2P filesharing :	Bittorrent.com
Video clips, mashups : YouTube.com; Google video	
Virtual worlds:	SecondLife.com webkinz.co

The term new media is used ubiquitously in many different ways. [16] focus on the message (i.e., the communication and its practices), the technology (i.e., the medium), and the social context in which it is used. These three aspects of the new media show up repeatedly in the literature along with other more specific technologies and practices such as collaboration, digitization telecommunication. [20] take the temporal approach, using the term "media in transition" to describe a period of time during which amedium is emergent and thus a sort of contrast to and competitor for the old media. [21] has defined new media as cultural objects "which use digital computer technology for distribution and exhibition." Clearly, new media may be characterized using a variety of different approaches. In large part, The confusion – such as it is – among various definitions of the new media is due to an inherentconfusion of the object of study – the message, the medium, the technology, the time period, the social context. In fact, today,the term media itself may sometimes refer to the technology – i.e., the mediumof communication – but increasingly to the message itself.This appears to be the inverse of what MarshalMcLuhan (1964) famously argued – that the medium (i.e., the technology) is more important to society than the content of the message – but perhaps that just shows how far we have come. The use of the word "new" implies a time factor, so it may seem reasonable to define the term in a temporal context. However, this is a never-ending enterprise. There will always be something "new" on the horizon. In would probably be a good thing to retire the word new in this context – a better choice would be networked media – but, as of now, it is meaningful. We attempt here to outline some of the perspectives through which the new media technologies are often examined. We note, too, that there is quite a bit of overlap among these multiple views [21].

THE WEB 2.0 PERSPECTIVE

Some use the term Web 2.0 to refer to the technological underpinnings of much of what we call new media. This term probably came into usage around 2001, when O'Reilly Publications started to refer to "modern" Internet applications as "Web 2.0" The implication is that these are second generation web applications, a quantum leap ahead of the old applications [6]; the idea being that, say, a personal web page is Web 1.0; a blog is Web 2.0. One interesting feature in this perspective is that of control. Web 1.0 applications were intended to force people to do certain things in certain ways at particular locations. With Web 2.0, the technology empowers users and thus – far from stifling web-related activities actually stimulates innovation and growth [9].

THE OLD VS. NEW PERSPECTIVE

Sometimes the best way to explain a phenomenon is to convey what it is not. One way to define the new media and their associated technologies is to contrast them to the old media. Old media – newspapers, magazines, radio television – are communication delivery systems. These are relatively independent, static historical. Today, old media are almost always paired with new media – newspapers and magazines have online versions, as well as their own blogs, television networks produce a great deal of online content related to their programming, etc. Some of this evolution has been due to the concern that the new media is growing at the expense of the oldmedia; and old media must evolve to survive. Voithofer (2005) specifically contrasts the new media with old media counterparts by describing the "newness" of the new media in terms of changes in production due to convergence of technology and media, storage (digitization and indexing), presentation (in a video display of sorts), and distribution over telecommunication networks [11].

Table II displays some examples of the old media vs. the new.

TABLE II – THE OLD VS. THE NEW

Books :	Ebooks, wikis
Journalism →	blogs
Music →	Pandora
Newspapers, Magazines	Ezines
Radio →	podcasts
Television	Full episodes on the web
Telephone →	VOIP
Film →	Amateur videos on the web
Photography →	Flickr, Picasa
Art →	Museums on the web

The past few years have brought wholesale transformations of established and existing media - e.g., photography, animation, television, film, newspaper. Computer-mediated communication and collaboration - e.g., email, chat room, IM, discussion forums, teleconferencing, avatar-based virtual worlds, VOIP, mobile telephony, blogs, wikis – have changed our organizations in profound ways. Even consumption is different in the age ofnew media; we are seeing more active post-purchasebehavior – in the form of, e.g., mashups, media sharing, and the modding of digital media. The historical perspective, illustrated with this sort of timeline, helps to clarify the antecedent technologies that had to be in place before the new media technologies of today could be developed. In addition, we can easily see how the pace of innovation has become increasingly rapid as we move forward. Furthermore, the trend towards increased interconnectivity, with its attendant globalization is evident as well [7].

THE FIVE C'S

Yet another perspective one might take in the study of the new media technologies is to examine the unique character of the new media technologies, especially the

features that unite these seemingly disparate technologies under a single umbrella. The wide range of characteristics of these new media technologies can be summarized by the 5 C's: communication, collaboration community, creativity, and convergence [9].

COMMUNICATION

By and large, new media technologies are concerned with communication in one form or another. After all, what are media if not communication modalities? Blogs may be viewed as an alternative or a complement to publishing, but they may also be an alternative to personal webpages. Furthermore, bloggers do not only engage in one-way posting. Many will cite and link to other blogger's posts; enough of this cross linking and the result is "conversational blogging" [12]. Communication supported by the new media may be categorized as unidirectional, collaborative, or networked. In our highly interconnected age, communication is extremely rapid, whether asynchronous or synchronous. The term viral – as in viral marketing or viral videos – is used to imply a rapid speed of transmission throughout networkedsociety.

COLLABORATION

Many, if not all new media technologies enable collaboration over the Internet.The primary and definitive example of this sort of medium is the wiki. Much Internet collaboration of the past (and present) has been done using email. When we use email for collaboration on a document, we tend to forward the collaborative document as an attachment repeatedly, at each iteration, to all members of the group. This is a tremendous waste of resources in terms of time, inbox capacity, bandwidth, hard drive space, etc. and also limits the size of the group. With this sort of redundancy, there is always the potential that different copies of the document will contain different sets of information. In addition, with all this forwarding of attachment, there is increased potential for viruses and other malware. That the size of the collaborative group is not limited by wiki technology may be illustrated by what is probably the most well-known example of a wiki – Wikipedia, the online encyclopedia. For more on the use of wikis, see [8] Blogs in general have limited collaboration. However, a single blog may be shared among a group of individuals and sometimes a blog may be used for group work. Online special interest groups often share documents and, more recently, Google Docs enables groups of users to work on the same document. The social networking technologies like Facebook have a collaborative aspect and virtual communities like SecondLife are used for virtual conferencing. Skype facilitates conference calls and chats.

COMMUNITY

A key feature of many of the new media – community – is fostered in a variety of ways and in a number of diverse new media technologies, for example, social networking sites like myspaceand facebook; virtual universes like SecondLife and Webkinz; social bookmarking technologies like that of del.icio.us.even older technologies like listservs, discussion boards, Yahoo (or Google) groups – or, even, Usenet – fostered a sense of community among like-minded folks who might be disconnected in terms of geography or time zone, but can meet synchronously or asynchronously was of Internet connectivity. Even among the new media technologies that do not seem at first to incorporate this sense of community, many eventually do. YouTube and Craigslist, for example, both have social networking aspects for users who login. Many of the web technologies we may not even associate with new media now have a social networking component (for example, visit eBay and HowStuffWorks). This aspect of the new media technologies, to a great extent, is

responsible for the sense of the world as a smaller place than it used to be. Our new media communities reach all over the globe, and are democratic and inclusive. In essence, the new media technologies foster a leveling of the playing field [22]. Technology has become the great equalizer

. CREATIVITY

A key feature of the new media is user-generated content. Users are no longer the passive receivers of the message. The couch potato is already an outdated image. Today's "audience" members create and edit videos, post to blogs, post product reviews, and contribute content in a host of ways. What motivates this active innovation in the new media? In large part this is due to the digitization of media. Is digital media that different from non-digital (that is, analog) media? For one thing, digitization makes editing extremely easy. Therefore, it also promotes creativity, since we are not burdened by the limits of the medium we are working with. Remember making changes to a large document using a typewriter? The size of the page severely limited any changes we were willing to make. With digitization and the right software our editing capabilities are limited only by our capacity for thinking. Today, consumers of digital media do not simply, read, listen, view, or play it. The also edit, mod, and create mashups. This sort post-purchase behavior means that a product is no longer necessarily "finished" when it goes into production and distribution.

CONVERGENCE

In years to come, the mashup may be viewed as the metaphor of choice for today's new media phenomenon. Indeed, if anything can be said to be the driving force behind the new media, it is the notion of convergence. The past decades have witnessed a convergence of technology more fantastic than fiction. This is primarily due to widespread digitization and to the Internet, which itself can be seen as the convergence of digitization and telephony. Some of the results of this trend are: companies that produce printers are now in the camera CONVERGENCE OF TECHNOLOGY: One of the most obvious recent trends is the convergence of computer technology and entertainment: for example, Tivo. The marketers use one name for both industries: infotainment. With the national move to digital TV, will TV sets become obsolete, to bereplaced by computers? A special kind ofmashup is the convergence of software applications into a web application hybrid, like applying Google Maps to real estate data to map the available homes in a particular community. One counter trend seems to be the divergence of technology. For example, with mobile technology we can do the same thing over different platforms. We want to be business; long distance telephone calls use a broadband internet connection; photographs are transmitted via e-mail using a cellular telephone; several companies are competing for video-on-demand; computer manufacturers are in the music business; and many more. There are many different types of convergence in the new media phenomenon, including convergence of technology, convergence of media, convergence of consumption, and convergence of roles.

able to, say, get our email and edit our Facebook site at home, at work, on the train, in the coffeeshop, etc. It is interesting to note that this divergence of technology appears to a special case or, perhaps, a consequence of the convergence of technology.
CONVERGENCE OF MEDIA: The old media newspapers, magazines, radio,television were fairly distinct and separate. Now we are seeing convergence of media due to technology e.g., a newspaper must have an online presence and probably a few blogs. On the other hand, most of the old media producers have "converged" into a few large corporations. All the more reason to enjoy the entrepreneurial,

democratic, and inclusive nature of the new media.

CONVERGENCE OF CONSUMPTION: We see convergence of consumption in consumers using several media simultaneously, e.g., computer, Internet, music, newspapers, telephone, camera, etc., and in consumers who produce mashups using several different forms of media [12]. One interesting question that arises: Does technological convergence drive consumer convergence? Or, is technological convergence a market response to the impetus of consumers towards multimedia multitasking?

CONVERGENCE OF ROLES: With the new media technologies, we have seen a blurring of the line among users, developers, distributers, producers, and consumers. New media encourages user-generated content; supports entrepreneurs, provides distribution channels for aspiring artists, and creates communities of consumers for these user-generated goods.

APPLICATIONS OF THE NEW MEDIA TECHNOLOGIES

Strategically, within an organization, new media technology may be incorporated individually as, say, a corporate blog or a CEO's blog or comprehensively as a separate corporate function whose objective is to facilitate online communication and collaboration [6]. Some of the ways that new media technologies are being used in business include: blogs and podcasts used for public relations purposes; viral videos to stimulate word-of-mouth (i.e., buzz marketing); online advertising; using wikis for collaboration; creating a collaborative, learning-organization type of corporate environment [3]; networking and collaboration both within the organization and externally with consumers / users; monitoring the blogosphere for customers both satisfied and dissatisfied; participating and learning from brand-related social networking media; enhancing customer loyalty and relationship marketing [9].

There are many other industries that have been affected by the new media. The following is a selection of application areas affected by the new media technologies, and some examples of the uses and application of new media in these areas. This is just a small sample of applications. Because of space limitations, many applications such as real estate, religion, military, and finance are not discussed. Also, it is interesting that even NASA is using SecondLife as a means of collaboration among its personnel.

ADVERTISING: Advertising media that did not even exist a few short years ago are leading the industry. Internet advertising is the fastest growing advertising medium. ZenithOptimediaexpects online advertising to account for 8.6% of global ad spending in 2008, 9.4% in 2009, and 11.5% in 2010 [12]. This means that online advertising will surge ahead of radio in 2008 and magazines in 2010. Advertisers are expected to spend about $20 billion worldwide this year on search ads (Google, Yahoo, and Microsoft totally dominate this area). In the United States, this type of advertising accounts for about 40% of all online advertising [13]. The whole notion of "pay per click" is very new – it feels as if it has been around forever – but it has not. Advertisers are turning to this type of advertising since it is the most selective way of reaching a prospect. A consumer is doing a search on, say, arthritis remedies, and ads for arthritis products appear at the precise moment. In this TiVo age, companies are trying new approaches to advertising, such as product placement, brief commercials placed in front of official, network-sponsored streaming video content (e.g., television shows). Mars, manufacturer of various sweets, is now on Facebook.Facebook users can send actual gifts to friends; in the past, they could only send "virtual" gifts [7].

RELATIONSHIP MARKETING: Relationship marketing is about satisfying customers (and other stakeholders) with quality products while building a long-lasting,

trusting relationship with them. It is being transformed by the capabilities of the Internet. Social networking has taken off as a popular way of connecting with like-minded individuals all over the globe. It enables organizations to increase brand/customer loyalty while at the same time getting feedback from customers and discovering what changes they want. Companies are now taking advantage of this trend. For example, American Express is experimenting with a beta version of a "travel community" for its membership.

NICHE MARKETING: Companies create products using micro segmentation for target markets that are too small to be profitable by traditional ("old media") marketing strategies. The goal is to use buzz marketing through the Internet. To get consumers to promote the product, perhaps on their blogs, social networking profiles, etc. [15]. A powerful advertisement on, say, YouTube could go viral and successfully support a small company in launching a new product or service.

PUBLIC RELATIONS: The field of public relations now has a new tool at its disposal. It cannot rely solely on press releases, but must consider the use of blogs, video releases on

YouTube, and organizational web presence. [7] feels that "online content in all of its forms is causing a convergence of marketing and PR that does not really exist offline." Good web content can enhance the reputation of a firm but also cause consumers to purchase products.

HUMAN RESOURCE MANAGEMENT: Resumes are no longer "static" pieces of paper. They are content folded into searchable databases. According to one professional recruiter, Maureen Crawford-Hentz, "Social networking technology is absolutely the best thing to happen to recruiting – ever" [9]. One site that Crawford-Hentz uses for job candidates is Linkedin. Linkedin is a network of millions of professionals from all over the world. Finding an individual with a unique talent becomes considerably less complicated when all it takes is searching

a business networking website. The cost of surfing a website is also considerably less expensive than personally interviewing dozens of candidates. In fact, many business networking sites provide a setting in which a member indicates whether or not s/he is interested in being contacted about job opportunities. Monster enables people looking for work to post resumes and search for a job electronically; employers can search through huge numbers of posted resumes. Some people are now even putting their "resumes" (video version) on YouTube.

IBM is using Second Life, an online virtual world, for training and mentoring new employees [17]. The firm feels that a virtual world is less intimidating than the real one and individuals are more open to taking risks using their own avatars than when in the real corporate environment. Second Life is being used to teach new employees all types of working skills including how to sell.

POLITICS/JOURNALISM: [11] discuss the interesting paradox that even though blogs have relatively low readership when compared to traditional media, they still have a huge influence in U.S. politics. The authors found that "only 7% of the general public is exposed to blogs; however, 83% of journalists use them. Since journalists treat blogs veryseriously, they have a great impact on politics. In addition, Moveon.org claims to have more than 3.2 million members across the United States and has become a powerful tool for social change.

[5] describes how the new media have created a kind of citizen journalism.In his words: citizen journalists seek to hold mainstream media more accountable for the information it prints, and mainstream media seek to hold bloggers more accountable for the information they circulate. In this way, they both keep each other [on] their toes." He observes that smart newspapers examine the blogosphere to discover underserved groups in their markets. This is very similar to what marketers are doing in

trying to find micro-niches in the marketplace. Citizen journalists with cameras in their phones have enhanced professional reporting by making vivid images available to everyone on the Internet.

MEDICINE: [9] discuss a serious problem in medical education. The emergence of new fields such as genomics, complementary medicine, and palliative care and new approaches, pose a huge challenge for medical education. Medical school curricula is already overburdened teaching traditional areas; the field of medicine, however, requires lifelong learning. The solution is learning that is collaborative and allows an individualistic approach to learning, i.e., Web-based learning. The authors point out that the Internet has become the tool to enhance knowledge and the performance of the medical profession. Indeed, there are a number of digital repositories supported by medical education organizations for this purpose (e.g,healcentral.org, ivimeds.org, merlot.org, aamc.org/meded/mededportal). [8] also discuss the merits of new media technologies for medical education. Medical professionals use new media when they stay connected with their PDAs to each other and to the latest information and look things up in dbs,

etc. There is also a revolution on the consumer side. Patients arrive at the doctor's office with a lot of information, much of it obtained on social networking sites set up for specific conditions [3]. Virtual environments like SecondLife are being used to help the autistic and those on the Asperger's spectrum develop social skills in the virtual environment that they can later apply to the "real" world [8].

SOCIALIZING/DATING: The social networking website has been defined as "an online location where a user can create a profile and build a personal network that connects him or her to other users" [6]. These sites are extremely important for teenagers. According to a recent survey of online teenagers conducted by Pew Internet & American Life Project, 55% of all of online young Americans between the ages of 12-17 make use of a social networking site. Also, older female teenagers are more likely to use these sites. They are used to "reinforce pre-existing friendships." Young boys use these sites for flirting purposes as well as to make new friends (Lenhart 2007). There are approximately 1,000 Internet dating sites in the United States; the major ones are Match.com, eHarmony, and Yahoo! Personals. More than 17% of American.

CONCLUSION

To sum up, it is possible to note that the distinction between old and new media can be based on several features. The most relevant distinction is based on the structural component and popularity. Thus, new media are characterized by computing andconnectedness while old media do not possess these features. However, it is also necessary to note that even this distinction is becoming somewhat blurred due to the changes taking place in the society of the twenty-first century.Newspapers and TV are now digitalized and these media start being more collaborative (i.e. customers are getting involved in the process of creation of the products). This collaboration is beneficial for the media as well as the development of the society. People are now ready to collaborate and interact, which is crucial for the globalized world of the twenty-first century.

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