

Traditional and New Media

As each generation enters our media-driven society, the term *new media* becomes very relative to their time **and** their immediate experience. Those readers born after the early 1980s have little experience in a world that was mostly not digital, **and** the “new media” around them were not new, just what they became familiar with in their time.

The purpose of this essay is both to create a very contemporary understanding of new media **and** to provide readers with a somewhat broader context that may help them as their “new media” become traditional **and** the next set of new media emerges, as it inevitably will.

If you are fortunate enough to survive a few decades, change will inevitably occur, **and** *new media* will be something else, again **and** again, no matter what it was when you started paying attention to it.

As a reader, I was, **and** I am even more today, a bit of a skeptic who wants to know why people know what they say they know. Thus, I will begin with a little of my own personal story, which may help you better understand the reason why a broader context may be valuable to you as you consider new media.

I am the first baby boomer, or one of the first. I was born just after midnight on January 1, 1946. The most common traditional medium of the time was radio, along with the daily paper. Families still actually gathered around the radio **and** listened to *Sky King*, *Fibber McGee and Molly*, **and** other shows. While television had been introduced to the public at the 1938 World's Fair **and** CATV was just getting its start in Oregon **and** in the hills of Pennsylvania, *new media* was not much of a public issue just after World War II, nor was computing, though it existed.

By the early 1950s, however, television, the “new media” that was going to ruin radio, had begun to invade living rooms. It was a black-**and**-white **and** often fuzzy picture, **and** programming was limited. It was relatively expensive to own, **and** it was erratic in service, especially in areas outside cities.

Our neighboring family, an older couple, owned a television set **and** often invited us to join them for the *Jackie Gleason Show*, *Ed Sullivan Hour*, or wrestling, which had a sizable following long before the version we know today. Television was “new media.” It did not destroy radio, though it changed it, **and** it was peculiarly American.

As we moved through the late 1950s, television was evolving, with better dramatic programming **and** news **and** political content becoming part of the normal fare. Color television was just around the corner.

The Kennedy-Nixon presidential debates were televised in 1960, changing the playing field **and** the cost of politics forever, **and** computing continued to grow in larger organizations. Can you imagine in today's world of political coverage on television **and** Web sites what those debates were like almost 50 years ago?

President John F. Kennedy proposed that we send a man to the moon, which ultimately broke the boundaries of our imagined tether to this planet. In 1957, satellites were launched, **and** this began to change the scope **and** distribution of new media in the 1960s, **and** color became the big deal as television evolved into three powerful networks that became our primary source of news, entertainment, **and** advertising.

Although the picture phone had been developed by AT&T's Bell Labs in the late '50s **and** realized some limited use in the 1960s, there were really no new media beyond network television that were publicly recognized as I finished college **and** army service **and** entered law school as the '70s began. The satellite **and** later CATV were less new media **and** more new distribution devices for television-based programming in those days. Of course, CATV, or community antenna television, was expected to destroy the broadcast networks, according to some authorities attending the International Radio **and** Television Society meetings in **New** York City with me in the mid-to late 1970s. I went on to become a Frank Stanton fellow with the International Radio **and** Television Society, **and** the broadcast networks somehow survived.

During the 1970s **and** early 1980s, the new media issue initially focused mainly on how to record television programs. While the first prototype of a videotape recorder was reported to have been demonstrated all the way back in November of 1951, at Bing Crosby's recording studio in Los Angeles, it took until the late 1970s for the industry to finally sort out the competing standards **and** get something nearly inexpensive enough for the consumer market, if you consider about \$1,000 for a VCR a competitive price (Lardner, 1987).

As I entered the 1980s, three major events began to shape the context in which new media **and** my own career would evolve.

The computer had been evolving since the 1930s, when John Atanasoff had developed the Atanasoff Berry Computer. Then came the ENIAC in the '40s, **and** then the first UNIVAC computer was delivered to the U.S. Census Bureau in June 1951 by Remington Rand Corporation. Thomas Watson Jr. pushed IBM into building computers in 1950. Thus, with this background of big, military, government, **and** large corporation-based central (mainframe) computing, a major shock occurred when the PC began to become a part of the desktop **and** the home. While it was 1976 when Jobs **and** Wozniak introduced the Apple I, by the early '80s IBM had rolled out its PC **and** rapidly surpassed little Apple in sales (Bellaver, 2006). The age of distributed computing **and** incredible personal computing power on your desktop had arrived.

The second major event was the early '80s move by the Federal Communications Commission to allow a little of the federally controlled broadcast spectrum to be used for limited consumer wireless telephones. It was expensive **and** limited, but it began what we all take for granted today as our right to mobile communication, **and** that had implications for new media.

The third event was the breakup of AT&T, which officially occurred on January 1, 1984, after the consent decree was issued on August 5, 1983 (Bellaver, 2006). That milestone created the opportunity for the rapid expansion of competitive communications **and** technology development, leading to the networks we take for granted today.

I will not unduly bog the reader down with too much detail—I think the above three events are central to my own, as well as your sense of context, as we move on to our shared time in the 21st century. Certainly, my life **and** career were forever changed by these events, **and** so was my sense of “new media,” although it was not always that clear to me at the time.

From 1982 to 1984, I led the process at the University of Pittsburgh that resulted in the creation of the first “Campus of the Future” in U.S. higher education. This eventual partnership with AT&T involved creating the first voice (phone) data (networked computing) **and** video system converged on a fiber-optic network for the entire campus. While it was a mix of analog **and** digital technologies, you could get what you wanted electronically, where you wanted it, when you needed it, **and** it allowed limited interaction with distant source machines as if you were in the same room. It sounds fairly standard by today's experience.

This prototype was evolved by 1987, in another partnership with AT&T, at Ball State University, **and** became a “market model” for both K-12 **and** higher education. I went on to lead projects like it across the country as head of my own consulting firm.

It was the precursor application, a kind of analogdigital hybrid of what we are now used to in applications as we use wired **and** wireless digital applications involving audio, video, text, **and** graphics. The university went on to become the number-one wireless university in 2005, according to Intel.

This market model demonstrated the kind of electronic environment that was able to deliver or shift in format many content sources. The basic policy implications of this shift had caused problems for the FCC chairman years before, in 1980, when he questioned “whether a newspaper delivered electronically is an extension of print **and** therefore free of regulation (First Amendment protection) or whether it is a broadcast **and** consequently under the control of (FCC rules) government” (Drake, 1995, p. 162). Electronic life had policy complications, **and** that could have implications for new media.

Without overcomplicating this legal mine field, simply understand that, in January 2008, the writers' strike, which almost ground Hollywood to a halt in production, was greatly about how writers are paid for the extended use of their work in new media areas. Most of the concern occurred when convergence allowed digitized content to move from known to new contexts.

Let me bring my story to an exit point briefly. The experiences I gained led me to found the Graduate Center for Information **and** Communication Sciences at Ball State University **and** to become a founding board member **and** President **and** Chairman of the Board of the U.S. Distance Learning Association in the late 1980s, where we would see satellite-delivered video education sessions evolve to online delivered classwork **and** streamed video, even cell-phone-based sessions. Through the 1990s, I led converged network-based campus projects across the United States **and** saw the evolution of what started as a military network **and** evolved to universities **and** then to what we all take for granted today, the Internet. The VCR **and** the videodisk evolved to the DVD **and** hard drives that digitally stored video content, **and** the simple cell phone evolved to become a device for entertainment, texting, **and** visual directions delivered from satellite as well as the more common telephone device.

In 2003, I founded the International Digital **Media and Arts Association** **and** still serve on its board **and** as its executive director. I am continuously confronted by “new media” evolving from what I thought I understood to be new media, which have either disappeared or become the new old traditional media—does anyone remember eight-track tapes for audio?

This is the context, the ever more rapidly changing context, in which I will discuss new media, **and** I hope you will learn as I did not to hold too tight to your definition. Things change, **and** so will you. Nevertheless, we will also discuss some things that I hope you will agree are constants **and** fundamental to our common experience **and** to our shared future.

New Media Versus Traditional Media

As you now know from the preceding introduction, *new versus traditional media* definitions must relate to context **and** time from my experience. Almost every related technology, at some point in its evolution, may have been considered “new media.” That makes defining it a bit tough.

Be that as it may, let us establish a contemporary working definition for the purpose of this essay **and** use it as a baseline as we move forward. Although it is not as simple as we might like, the term *digital* might serve as our baseline label for defining *new media* with some reservations.

If we say that new media encompasses those technologies that move, store, manage, **and** allow manipulation of digitized information, whether for news, entertainment, communication, visual or other purposes, we may have a starting point.

We must remember that we are dealing with one of the more complicated areas in life, communication, **and** one

of the more complex concepts, information. Every hour of our waking days we create information of all kinds. If we do it digitally, it is reduced to ones **and** zeros **and** then what? We must find an appropriate medium for communicating both the code **and** the message contained in that code with our desired audience. **Media**, new or old, do not exist for themselves, shocking as this may be to a sizable segment of the working world; they exist to help human beings get their information communicated.

Let us take a relatively simple example. A graphic artist has been asked to create the cover of the catalog for a digital art exhibit in Chicago. The exhibit has a theme, a title, artist contributors, a sponsor or some source of support, a somewhat defined audience, **and** the rest of the world, today or whenever in the future, who might pay some attention to this cover work.

All of the elements mentioned above were present "before digital," but "after digital," things are a bit more complex. While there is still the challenge to the graphic designer to create the visual information that communicates an acceptable, appropriate, **and** even creatively reinforcing message about the exhibit, in the new media world, life is both better **and** much more complicated.

Before digital designers had their experience, some limited research time to review related designs that were available nearby, the wishes of those who commissioned the work, the challenge of a relatively limited audience with modest potential for broad exposure—with limited lasting **and** broad-based archival potential, **and** their courage **and** creativity.

Now, what has changed after digital? Graphic designers still have the experience, but with the Internet **and** worldwide access to both contemporary **and** archival examples, the research of related designs can be both extraordinary **and** daunting. When do you stop? With texting, cell phones, e-mail, **and** other invasive personal access, when does the designer get enough input from those who commissioned the work, whose gallery will be featured, or whose works will be inside the catalog that the design will cover? Then, designers must also consider the impact of worldwide access to their work since it will, no doubt, be added to a Web page **and** available across the globe now **and** likely archived for future reference. Nevertheless, perhaps the saving grace is that artists still have their creativity **and** courage, **and** that may be the true bridge for all of us between before digital **and** after digital. As we move forward in this essay, the real issue between old media **and** new media may continuously come back to the concept of integrity in communicating information, **and** that involves the courage of the reader/viewer to question the accuracy of the content **and** the commitment of the creator of this information to integrity.

Exploring Technology and the Myth of Interactivity

Techencyclopedia's (www.techweb.com/encyclopedia) definition of *new media* is an intriguing one:

*The forms of communicating in the digital world, which includes electronic publishing on CD-ROM, DVD, digital television **and**, most significantly, the Internet. It implies the use of desktop **and** portable computers as well as wireless, handheld devices. Most every company in the computer industry is involved with new media in some manner.*

For more than 20 years, we have been in an era of digitally based technologies that allow manipulation of all forms of digitized content that can be converged on broadband (often fiber optics) **and** easily **and** instantly transmitted across the planet via the Internet.

Before we leap forward to the myth of interactivity, it is critical to our lives as citizens of the 21st century that we consider what is significant about this technology discussion. It is not the coolness of Blu-ray or HD, iPhone, MP3, GPS, VoIP, or any other technologies. These will shift with engineering breakthroughs. Marketing will rename or reconfigure a service to enhance sales, **and** new opportunities will evolve, as they always have done. Technologies are simply tools.

What is important to us as we contrast new media **and** traditional media in a digital world is to understand the key words used in the foregoing. They are *manipulate*, *converge*, **and** *instant*, whether referring to accessed information or to transmitted information.

As citizens **and** potential professionals in the digital world, we have every aspect of our lives affected by new media. To be well informed, even educated members of our society, we cannot be naïve about the implications of these three key words.

Let us begin with *manipulate*. Once you digitize an image, a document, a film segment, it can be relatively easily manipulated. Now, we have been manipulating all sorts of media, **and** everything else for that matter, for a very long time. Analog films **and** video were edited, **and** “wet” or film-based photography was also manipulated, as were written articles or text. Our issue today in new media is that manipulation is relatively easy **and** most users of digital technology can do it: Certainly, younger people who have grown up digital find this to be no big deal to do. That was not the case in the analog world.

If a photograph used in a trial was manipulated in the analog world, there were a relatively finite number of professionals who might have had the experience or skill level to achieve this. Today, with a cell phone camera, little experience, **and** some relatively inexpensive software, it is no big achievement to capture **and** manipulate an image.

On Friday night, when we need to just get out of our space **and** see a film on the big screen, we do not care if the film footage was digitized in Hollywood **and** sent via broadband to **New** York, London, **and** Wellington, **New** Zealand for simultaneous editing by three different groups working on AVIDS as long as what we see on the big screen is entertaining to us. The end justifies the means for us.

Nevertheless, if two students, one in Queensland, Australia, **and** the other in Muncie, Indiana, are taking an online distance-learning class **and** go to a Web site **and** each turns in a paper that has a number of paragraphs “lifted” from the site **and** inserted into each of their papers without credit, this easy-to-do manipulation of text is called plagiarism, **and** it is especially painful if the faculty member happens to notice or if he or she is using software that now checks papers for this sort of dishonesty.

What is the point here for us? **New** media in a digital world open up vast manipulation opportunities to masses. The benefits, for example, to film making are remarkable. Without integrity as a key element in user judgment, the potential for disservice to our society is significant in every field you can list due to the pervasiveness of our digital world. From identity theft to digital photo makeovers to political contests, we have a new obligation as citizens in the digital, new media age. We cannot assume that integrity is always a primary consideration in what we see **and** read, **and**, thus, critical thinking **and** a healthy dose of skepticism are required.

Convergence is the next key word. While not simple to achieve, it refers to a digital world where telephony, computer data, **and** video are all digitized signals that can be transmitted **and** switched over the same network that is IP or “Internet protocol”-based. The rules of economics **and** access have changed. A voice-over Internet protocol (VoIP)-based telephone call to China from the United States is today no big deal for a Chinese student calling home. It was a very big deal only a few years ago. A U.S. soldier serving in Iraq can sit down in a tent before a computer screen with a Web camera **and** visit with his family in California via an IP-based session. This “video conference” or call had a significant cost before the expanded capability of broadband Internet.

Today convergence of voice, data, **and** video signals over an IP-based network, transmitted across the Internet, means that both the technical **and** the economic barriers that limited our choices **and** breadth of communication **and** access are mostly gone.

So what, you might say? This is just the way it is today, after all. For new media **and** for citizens of this time in the digital age, we have access to the widest scope of information ever, **and** that means others have access to

us as well. Privacy **and** personal judgment become more important to us as stalkers, friends, **and** even pedophiles, **and**, oh yes, potential employers visit our Web site, our Facebook, **and** other social-networking site entries. Using data-gathering software, marketers **and** others can easily profile us, **and** very little we do electronically can be held private. The concept of access is truly a two-way street, **and** personal privacy becomes a new challenge. If we put up something "stupid," revealing, or just tasteless, the world can see it just as we can see others via new media.

While there are numerous examples of this phenomenon, none can be much more telling than the January 2008 story of the Michigan woman who advertised on craigslist, a popular Web site, for an assassin to kill her lover's wife. She was quickly discovered **and** arrested. Stupid, we might exclaim, but the simple truth is that with all the good that comes with access in our new media world, judgment **and** responsibility end up being much more important today because we are so much more "exposed" than we were in past.

Just in case you assume this concern to be overstated, let me refer you to the 2007 book *The Cult of the Amateur: How Today's Internet Is Killing Our Culture*, by Andrew Keen, someone who has pioneered a number of Internet start-ups himself.

It is easy to look back to the summer of 2003, when 12-year-old Brianna LaHara was caught by the Recording Industry Association of America after downloading, copying, **and** distributing 1,000 songs to her friends. She was young, the case was settled out of court, **and** the association needed to make a point.

Nevertheless, was the point clear to her slightly older contemporaries? Perhaps not, if you consider the June 2005 study of 50,000 undergraduates by the Center for Academic Integrity. In it, 70% admitted to cheating **and** 77% of them "didn't think that Internet plagiarism was a serious issue" (Keen, 2007, p. 143). The issues of judgment **and** integrity become more prominent.

The availability of images, music, movies, **and** text, all someone else's work, all converged on an incredibly accessible network, **and** all easily stolen (yes, this is stealing), represents a seductive temptation to us as users **and** a real threat to the culture of which we are a part. Thus, the notions of user courage **and** skepticism, **and** integrity in providing **and** using information are critical to our social **and** professional futures.

The third key word is *instant*. In this digital world, speed is all, **and** we can truly think it, access it, or record it **and** send it around the planet instantly, **and** that is both good **and** risky.

Much as I would never subject you to my writing in this essay without editing it, rethinking the content, **and** revising it, that is less likely in this era of "just hit the send key." At the end of the day, after the editing this may not be great, but it will not be careless.

As a PhD **and** a professional with almost 40 years of experience, I have never received so much poorly written **and** insufficiently thought-out junk than in the last decade as e-mail **and** texting took over the majority of correspondence. **New** media have broadened the base of input in many areas, **and** instant communication has changed the quality of content, not always for the good!

Some limited examples should help to make my point. Note that while personal carelessness in electronic communication may just cause a little loss in confidence, when new media gets involved, much more is at stake.

My first example will be Wiki's. Newton's Telecom Dictionary notes that "a Wiki, in its simplest form, is a web site that can be written upon **and** edited by multiple users at once" (Newton, 2006, p. 998).

While there is nothing inherently wrong with democratically shared information, **and** no system of information development is without some fault or risk, would you trust your health to an MD who got his latest drug information from a Wiki? He might have gone to Web MD, a site with reviewed **and** vetted content, **and** gotten

poor information, but which source has the greatest credibility **and** the least risk? Remember, aWiki can be instantly available for access, **and** the qualifications of contributors are generally unknown.

Since this raises a both disturbing **and** very difficult set of considerations for the reader as well as the author in our time of new media issues, I want to go a little deeper **and**

once again involve you with Andrew Keen's work, this time in the context of the January 2001 creation of Wikipedia by Jimmy Wales with Larry Sanger.

Keen (2007) reports the clash between Dr. William Connolley, a well-published **and** recognized climate modeler **and** expert on global warming, **and** a Wikipedia editor who punished Connolley for "strongly pushing his POV (point of view) with systematic removal of any POV which does not match his own." The result was that Connolly, who Keen notes "was pushing no POV other than that of factual accuracy," got restricted by the editor on this democratic information site without any consideration for relative expertise or credibility, **and** on appeal he was given the same deference as his unknown foe, "who, for all anyone knew, could have been a penguin in the pay of Exxon Mobil" (p. 43).

The implications of this should be disturbing to all of us unless you believe that a new college freshman is as competent to teach the Basic English course as is a tenured **and** well-published senior professor. Certainly, the freshman might be more entertaining **and** might make some valid points, but would you pay tuition or, more important, give your time for this level of expertise?

Let us jump ahead in Keen's work to see why Larry Sanger, who ran Wikipedia's day-to-day operations, left the company after 2 years. According to Keen (2007), Sanger found "that the democratization of information can quickly degenerate into an intellectually corrosive radical egalitarianism." In effect, "he learned that fully democratic open-source networks inevitably get corrupted by loonies" (p. 186).

Keen (2007) noted that what Sanger realized to be Wikipedia's problem "was with its implementation, not its technology (p. 186). Thus, in an attempt to do better, Sanger launched Citizendium in September 2006, which he described as "an experimental new Wiki project that combines public participation with gentle expert guidance" (p. 187).

Citizendium lists its difference as a Web 2.0 Wiki as "credibility **and** quality not just quantity," involving "both general public **and** credentialed experts," using "our real names, not pseudonyms," **and** being "both collegial **and** congenial."

Based on this **and** numerous other Web 2.0 examples, Keen (2007) notes that "This gives me hope that Web 2.0 technology can be used to empower, rather than overshadow, the authority of the expert, that the digital revolution might usher in an age in which the authority of the expert is strengthened" (pp. 188-189).

I have told my clients, my students, **and** my colleagues for 25 years that the technology is just a tool **and** what we do with it in application makes all the difference for the human condition.

The reason I have emphasized the Wiki issue is to help the reader consider how easy it is for those who have reason to know to be shouted down by so many who will only work at the noise **and** not the content quality. In the new media world, credibility **and** careful thought presented with care, not just instantly off the top of the head, still matter.

My second example is Weblogs, or blogs, which are really nothing more than a Web site for an individual or individuals. Not being a great fan of blogs, I conferred with a colleague who has studied this digital world phenomenon. Dr. Jay Gillette described a blog as, primarily, an electronic diary or journal of an individual whose thoughts are made public by instant access via the Web. The blogger may be serious or not, 13 or 45, passionate about the topic, well-informed or not, biased or objective, but the blog is the blogger's unrestricted

and unvetted thoughts. It is instantly accessible, **and** credibility is the challenge to the reader's judgment, as it is with any source, just more so in this case. We see bloggers everywhere, **and** especially in politics in an election year.

So what is the point? If the source of the information is not credible in a time of instant **and** immediate access, then the information may be worthless or, worse, deceiving **and** dangerous. If we do not develop a healthy sense of skepticism **and** check out the credibility of sources of information as citizens of a digital world in which instant access lessens effort, we are subject to the worst of new media, **and** that lessens our society. The more lazy easy access makes readers, the greater the risk to all of us. My final example involves one of our more trusted roles, the credibility of the editor function in new media in this time of instant access in the digital world.

The simple description of the role of the editor in traditional print or broadcast media was primarily to see that the story submitted fit the time or space available after judging its relative importance for placement in the paper or news show **and** to be certain that it was accurate **and** clearly presented to protect the credibility of the organization. It was always a time-challenged role where deadlines, scoops, **and** audience appeal were critical issues.

What is so different about the role of an editor in new media? First, in a world of instant access where everyone can be published or viewed, the time pressure **and** the volume increase make careful vetting that much harder, especially in the wide variety of new media outlets. Even traditional media such as the venerable **New York Times** **and** **CBS News** have lost credibility over the past few years from inaccurate stories from people as credible as the former CBS anchor Dan Rather, who reported stories alleging that the then-President George W. Bush had shirked his military duties as a young man, which proved to be false **and** happened to be reported in September 2004, just over a month before the next presidential elections. Rather left the anchor job as a part of the fallout.

In new media, the pressure of time, the breadth of sources, **and** the less concentrated competition for scoops, audience appeal, **and** glory make this editing role much more difficult. Since new **and** traditional media compete for audiences, this is true for both.

The very traditional **New York Times**, in May 2003, reported that Jason Blair, a 27-year-old reporter, regularly misled readers with "frequent acts of journalistic fraud" over months of reporting before he was caught.

So what is the point? **New** media, with all of its pressures **and** opportunities, has a somewhat weakened capacity to ensure accuracy. The responsibility for ferreting out truth **and** veracity in our information-rich world falls more heavily than ever on the reader **and** the viewer, who are bombarded by new media **and** all its competing sources. If we are too lazy, too rushed, too unconcerned with truth or at least credibility, we become the victims of new media, not the beneficiaries of greater **and** more immediate access to a world of new **and** creative information sources. It certainly complicates matters when these sources arrive two or three at a time on our screen.

In case this is becoming a bit depressing, there is a bright side, **and** once again I will turn to Keen's book for a great example of "managing new media **and** traditional content without compromising editorial standards or quality" (p. 188), as he puts it when he describes how the British newspaper *The Guardian* has moved part of its business online without compromising "high-quality news gathering **and** reporting."

One result has been that the online version, *Guardian Unlimited*, has more online U.S. readers than do top U.S. newspapers such as the *Los Angeles Times*. One critical **and** credible step has been that the division between professional reportage **and** amateur opinion has been clearly delineated.

Most of us love to see an underdog win, to see the amateur best the pro. It makes for great entertainment, but when it comes to our health, our living, our government, our laws, it really matters to us to know the source of

our information. We make decisions, select paths, **and** base critical judgment on information, whether credible **and** accurate or not. We have the right **and** the responsibility to know the kind of source before we decide on the value of the information. We have the obligation of integrity as we become sources of that information in an information-driven economy where global access is now reasonably common.

Our content today is unquestionably the richest in information at any point in history, **and** access to it is worldwide. While not everyone has fully equal access, you can find an Internet café in almost any city in any country across the globe. The potential for changing lives with access to information is unquestionable. Can anyone question the impact that having access to information by people around the world had on the events of 1989 in Tiananmen Square in Beijing, China, had on the Chinese government in quelling student riots? Even after shutting down satellite visual access, the fax **and** Internet communication kept information flowing to the world **and** greatly affected the level of government reaction **and** harm to human life.

In a recent conversation with a stimulating friend who is president of Constellation Communication, I was challenged to imagine what might have been if young Anne Frank, a diarist in the Netherlands during the Nazi invasion of her home who hid in a secret set of rooms to survive while the world looked on, had been a blogger with access to the Internet of today. She may have brought worldwide attention more quickly to the atrocities being leveled against Jews by the Nazis. Unless she was extremely clever, she might have also been traced electronically **and** found more quickly, **and** therefore her diary might never have been shared. It is always a two-sided sword. Our endless opportunities in a new media world bring with them some serious new responsibilities.

The final issue I will discuss regarding new media within the technology area is interactivity, which some have tried to use as the more important or compelling aspect of defining new media.

Interactivity, as defined by Newton (2006), is "the ability of a person or device to talk to or communicate with another device in real time" (p. 484). So I ask you, if you are playing on a pin ball machine **and** the ball sticks **and** you hit the machine **and** the ball moves without (or with) a "tilt" penalty, is this an interactive experience? If you are working on your Mac **and** it freezes up **and** you reboot it **and** it becomes responsive, is this an interactive experience? If you speak to your SYNC-equipped Ford product **and** the requested song comes up, is this interactive? If you e-mail me **and** suggest that I am lost, **and** my laptop sends back an automatic "drop dead" or "I'm away" message, is that interactive?

They all may be somewhat interactive by definition, but most of us would not find this level of interaction very satisfying. The promise of interactivity, especially as it relates to new media, is a murky area **and** one that is more myth than deliverable in my experience except, perhaps, in gaming. If you have ever been caught up in a voice response system loop where you absolutely cannot get your question answered or your call shifted to a human, you understand the fundamental myth.

As humans, we are naturally interactive with each other, **and** we thrive on it, to a point, but in the world of new media, we face some obvious limitations, **and** often we resort to marketing-driven "overpromise"; since some of you will likely become Web 2.0 **and**, perhaps, Web 3.0 entrepreneurs as well as users, let me clarify this enticing area in a simple fashion.

Interaction requires access, **and** it tends in the new media world to expect a 24/7 level of responsiveness. I do not mind when an e-mail arrives at my machine. I begin to be concerned when I receive 100 between 2:00 **and** 3:00 a.m. on a business trip to Asia **and** I am expected to instantly respond. Machine interactivity is limited by artificial intelligence levels in terms of available choices in the software **and** the level of secured access. Online banking **and** other interactive services amply demonstrate

this, as does gaming. Nevertheless, there are limits that we humans have in a new media world of 24/7 access on a global basis. Businesses often figure this out when resources do not permit quality **and** quantity of

personnel sufficient to meet the promises of marketers of consumer help **and** ever-present access. Then customers get turned off **and** depart.

Most of us, no matter how big a tech junkie, have capacity limits **and** therefore cannot dedicate 24/7 response time. We sometimes actually require a life separate from this hyper-interactivity; we even desire a bit of thinking time.

So what is the point here? Interaction is a human need **and** desire **and** a technology option. It is highly desirable, **and** it comes with limitations. Promise it wisely, **and** be somewhat skeptical of the level of interactivity promised to you. Understand the limits of the Second Life-type experiences **and** the addictive potential of Internet dating, gambling, pornography, ad nauseam. Both the human **and** the machine still have limitations.

Your time is your most valuable resource, **and** it is often the way new media players are measured for success. Interactivity, like seduction, is often a means to a not always satisfying end. Participate wisely since you can never get your time back, whether you are making the contact or promising to respond to it.

The promise of interactivity reminds me a little of what my colleague Scott Shamp, who directs the University of Georgia's **New Media** Institute, calls "the Law of the Hammer.... when you have a hammer, everything looks like a nail."

How New Media Are Developed and Assimilated

Most new media entrants in the time of our "digital" line in the sand definition were evolved from a combination of technological, marketing, **and** economic factors combining to create a new opportunity.

The Internet offers tantalizing opportunities to reduce distribution costs, to more broadly spread content from local to global access, **and** to create greater author access in the highly competitive field of print journalism. Who would have printed a diary of an unknown author for local or even regional distribution just a decade ago, **and** then the blog arrived? Now, some blogs are carried in print newspapers.

Who would have considered evolving a 30-second story for the six o'clock TV news into an expanded print version that would also be carried both in the electronic version of the newspaper **and** as the expanded subject of the author's blog? Who would have believed that this would be done by a reporter working in a corporate contract for both print **and** broadcast interests, historically in competition with each other?

Who would have believed that YouTube would have opened a wide **and** very popular portal for so many wannabe video **and** film amateurs? This story, including that of social networks, is just in its early chapters.

Finally, who would have been persistent enough just a decade or so ago to assume that the wireless phone, then just a few years from being a big clumsy device sometimes carried in a good-sized bag, would become a pocket camera, a source of news, entertainment, texting **and** e-mail, gaming, **and** sports—**and** that list is still evolving as formatting issues are addressed.

Every market seeks growth for its opportunities **and** products. The developers of technologies often create a technology for more limited or differing uses than marketers can help sell to users. Most businesses, **and** print journalism **and** electronic news media are businesses, may come kicking **and** screaming into a new world changed mostly by the Internet, but they understand competition **and** survival, **and** they do change to survive.

Over the past 25 or so years, digital technology has been at the heart of the most rapid **and** broad set of changes, across the globe, that mankind has ever experienced. It has merged evolutions with revolution **and** curiosity with unprecedented access to information, **and** it is disturbing **and** disrupting to numerous cultures, our own included, in the United States. Previously held taboos are now fodder for Internet chats, **and** if they are

out there, a very hungry new media segment sees no reason not to also discuss them, **and** that competition forces even the traditional media into the same discussion. Values, ethics, judgment, **and** integrity all sometimes suffer.

All this means opportunity, **and** it includes risks for every society **and** profession across the globe, not just this country.

Remember, each new generation comes to the world that it finds at its time. While assimilation of new media today is an issue for executives, investors, practitioners, **and** mature users, it is not such a big deal for the very young. If they have no sense of history or context, it is just the way it is to them.

The “So What?” Factor

It is essential in my view, to both a free **and** independent personal life **and** to an informed citizenry in a free democracy, that each generation realize that its tools of technology **and** the resulting new media **and** their consequences fit into a time that is part of a greater context. That greater context includes both the lessons of history **and** the opportunities for choosing a better or lesser future that we can create via our choices **and** our tools.

At a time when rapidly appearing **and** shifting new media present us with an ocean of information that is both global **and** local, that is, not unlike our oceans, filled by both pure **and** polluted sources, that like the oceans ebbs **and** flows with the tides but is ceaseless in presence, the responsibility of both the users **and** the creators of our information has never been greater. Creators of information without integrity, sources without responsible editing, vetting, **and** valued credibility, can do great personal damage as well as harm to society. Open **and** universal access to such information means that those without the courage to be skeptical of sources, expertise, **and** veracity can be easily fooled, misled, **and** even harmed by foolish health or financial advice, bad drugs being promoted, character assassination—**and** the list is long.

New media will continue to evolve for the good **and** not so good: Will you have the personal responsibility **and** the courage to guide its use for you **and** your time to serve us well? That is the ultimate challenge, not the ability to tick off a list of new-media technologies.

Author's Note

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—Rayford L. Steele

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