

A PUBLICATION OF THE NATIONAL TELEMEDIA COUNCIL • SINCE 1953

# THE Journal of Media Literacy

VOLUME 54, NUMBERS 2 & 3 • WINTER 2007



## **THE NEW LITERACY RENAISSANCE: MEDIA CONVERGENCE AND THE COLLECTIVE COMMUNITY**

*Martin Rayala, Ph.D., Guest Editor*

AMBROSH • AUFDERHEIDE • BAKER • FRECHETTE • HOBBS • JASZI • JENKINS  
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# THE NEW LITERACY RENAISSANCE: MEDIA CONVERGENCE AND THE COLLECTIVE COMMUNITY

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# The Journal of Media Literacy

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*The Journal of Media Literacy* (first published in 1953 as *Better Broadcasts News* and later as *Telemedium, The Journal of Media Literacy*) is published by the National Telemedia Council (NTC), the oldest media literacy education organization in the United States, having been founded in 1953. *The Journal* reflects the philosophy of NTC, which takes a positive, non-judgmental approach to media literacy education as an essential life skill for the 21st Century. The National Telemedia Council is an organization of diverse professionals interested in the field of media literacy education. NTC encourages free expression of views on all aspects of media literacy in order to encourage learning and increase growth of understanding of issues in Media Literacy. Any opinions expressed in *The Journal* or by individual members of NTC, therefore, do not necessarily represent policies or positions of the National Telemedia Council.



# A Letter from the Editors

This century will bring radical and fundamental changes in the way we think and how we live. These extraordinary transformations hold the potential for a re-birth of literacy... a Literacy Renaissance, empowering people with creative and novel ways of thinking through new media convergence and collective communities.

These new tools of technology allow people to leap into imaginary, virtual worlds of their own making: interacting, playing, thinking, learning, reinventing. In this virtual world, people have the potential and the

power to transform the real world. This is new media literacy – the literacy of this century. The challenges and opportunities for education lie before us; we must work to understand the implications of these powerful new technologies and help young people develop the skills to create a sustainable future worth living into.

In this issue, some of today's most advanced thinkers help us work through this new virtual world. We thank them for their contributions and Dr. Martin Rayala for his leadership as guest editor.



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*"We dedicate this issue in memory of the Hon. Lee Sherman Dreyfus, former Governor of Wisconsin, Chancellor of the University of Wisconsin–Stevens Point, U.W. Professor, and Director of WHA-TV, Wisconsin Public TV station.*

As we go to press with this special future-oriented issue of the *Journal*, we have just learned of the passing on January 2, 2008 of one of the major visionaries in twentieth century media literacy. Throughout his colorful, dynamic career, Lee Dreyfus was always way out in front with technology, ten steps ahead in his thinking and wisdom about the media, and a steadfast leader, mentor, supporter and friend of NTC (formerly ACBB)—always open, approachable and dedicated—a friend in every way. It was a four-generation affair for the Dreyfus family, beginning with Lee's mother Clare, Lee, his daughter Susan as our president, and her son Jimmy.

*To the entire Dreyfus family we extend our deepest sympathy, respect and admiration.*





# Media Literacy in the Post-Human Universe

BY MARTIN RAYALA, PH.D.

I DO NOT KNOW WHAT I MAY APPEAR TO THE WORLD, BUT TO MYSELF I SEEM TO HAVE BEEN ONLY LIKE A BOY PLAYING ON THE SEASHORE, AND DIVERTING MYSELF IN NOW AND THEN FINDING A SMOOTHER PEBBLE OR A PRETTIER SHELL THAN ORDINARY, WHILST THE GREAT OCEAN OF TRUTH LAY UNDISCOVERED BEFORE ME. —Isaac Newton

**M**edia and technology are changing so rapidly that it is difficult for people to keep up. New media are evolving faster than the capacity for humans to assimilate them. In Ray Kurzweil's book, *The Singularity is Near*, he projects that by the middle of this century machines will surpass the processing power of human brains. This means that computers will rival the full range of the best of human intelligence at peak performance. (Kurzweil) This is seen by some to be one of the most transforming and thrilling prospects in the history of humanity. For others it evokes fear and terror.

The way people react to the coming "singularity" is so distinctly divergent that it makes one wonder if the human species hasn't actually branched somewhere along the line to make two distinct (albeit still overlapping) lines of human development. We have the traditional "Humans" for whom everything

seems to be happening too fast and who live in fear of the speed and scope of developments in everything from media to genetics, nanotechnology, and robotics. They do everything in their power to stop or at least slow down the speed and direction of these new developments. They fear the future. They suffer from anxiety, depression, fear, and inability to keep up with the pace of change in the world. This manifests itself in physical, psychological, and social breakdowns. The future is killing them. They are being driven to extinction.

Then there are those for whom the technological and media advances are exhilarating. These I will call the "Sapiens." They see that we are at the beginning of a "New Renaissance" that will even surpass the tremendous spurt of intellectual, social, and artistic growth that occurred during the first Renaissance after the first Dark Ages. They see that the future is going to be so spectacularly transformed that, by comparison, the time we live in now will appear to be a second Dark Age. The contrast will be so great that the pain and suffering so prevalent in our health care, the poverty still rampant in our social systems, the corruption in our political systems, the outright greed in our economic systems, the stupefying dullness of our urban systems, the ineffectiveness of our educational systems, the violence and fear in our communal systems, and the exasperating disarray in our transportation systems will look, in hindsight,

like the Dark Ages. People in the future will wonder, "How could they stand to live that way?" "How could they put up with such stupidity, inefficiency, selfishness and cruelty for so long?"

The brilliant futurist from the last century, Buckminster Fuller, some fifty years ago saw that we had all the technical knowledge to create a globally sustainable civilization for everyone on the planet to live like millionaires. He maintained, "This is not an opinion or a hope—it is an engineeringly demonstrable fact. This can be done using only the already proven technology and with the already mined, refined, and in-recirculating physical resources." (Fuller) The reasons we haven't done so include the "natural" human tendencies toward ideology, dogmatism, hatred, greed, egotism, and domination. The hopeful difference is that technology provides the means for more individuals and small groups to take advantage of new developments independent of recalcitrant political and social superstructures. Personal computers, cell phones, green technologies and a variety of similar technologies are democratizing tools that enable individuals and disenfranchised groups to manage their own development when the larger society fails to do so.

When Ray Kurzweil asserts that in the near future human aging will be slowed and then reversed and we will have the potential to live incredibly long lives if not forever, Humans recoil in fear and disgust. "I wouldn't want to live forever!" Given the chance to extend their lives by decades or a century they would just as soon pass on it, thank you very much. And isn't that "playing God," anyway? Some common reasons voiced by the pro-dying advocates include: living would become incredibly boring; my savings and retirement funds would run out; there are already too many people and many are starving in Africa; and dictators like Castro would live forever.

While some think he is a madman, the eccentric Aubrey de Grey is convinced that some people alive today will live for thousands of years as new technolo-

gies come on line to extend their lives just before they have reached the limits of previous technologies. In his book, *Ending Aging*, his argument is that extending someone's life by twenty years allows enough time to develop new strategies to extend their lives another twenty years ad infinitum. (de Grey)

For Sapiens the chance to extend healthy life indefinitely would be an incredible accomplishment. Isn't the whole point that eating right, exercising and living healthy life-styles extend our productive lives as long as possible? Haven't we always sought the "fountain of youth"?

When Ray Kurzweil asserts that in the near future there will be no clear distinction between humans and machines and that we will be able to assume different bodies that transcend our biological limitations, Humans are repulsed. This not only seems like a bad thing to do but they are afraid of what these powerful machines might do to us. They project our own human proclivities toward domination by force onto future sentient machines with the idea that, even with mental powers a trillion times greater than ours, these machines would behave like people when it comes to greed, domination, control and vengefulness.

Sapiens look forward to the logical extension of human capabilities with new technological advances. Machines are already faster and more accurate than humans at tasks ranging from arthroscopic surgery to landing 747s in poor weather conditions. The future survival of our solar system is dependent on the life of our middle-aged star that is rapidly (in geological scales) burning up its fuel reserves. Sapi-

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ens know that at some point our survival will depend on our ability to escape this certain death to successfully take up residence in some other galaxy. This will take intellectual firepower about a trillion times more powerful than the unaided human brain—the kind of capacity only possible with the help of machines.

The Russian scientist, Nikolai Kardashev calculated three levels of development: Type I is a civilization that can control the energy of an entire planet; Type II is a civilization that controls the energy of an entire star; and Type III controls the energy of an entire galaxy. For any chance of survival, we will need to reach the level of a Type III civilization before our Sun burns itself out. Granted, that won't happen for another 5 billion years, but we have not yet achieved even the status of a Level I civilization. We will need to advance a trillion fold to become a Type III civilization and a hope for any chance of survival. (Kardashev)

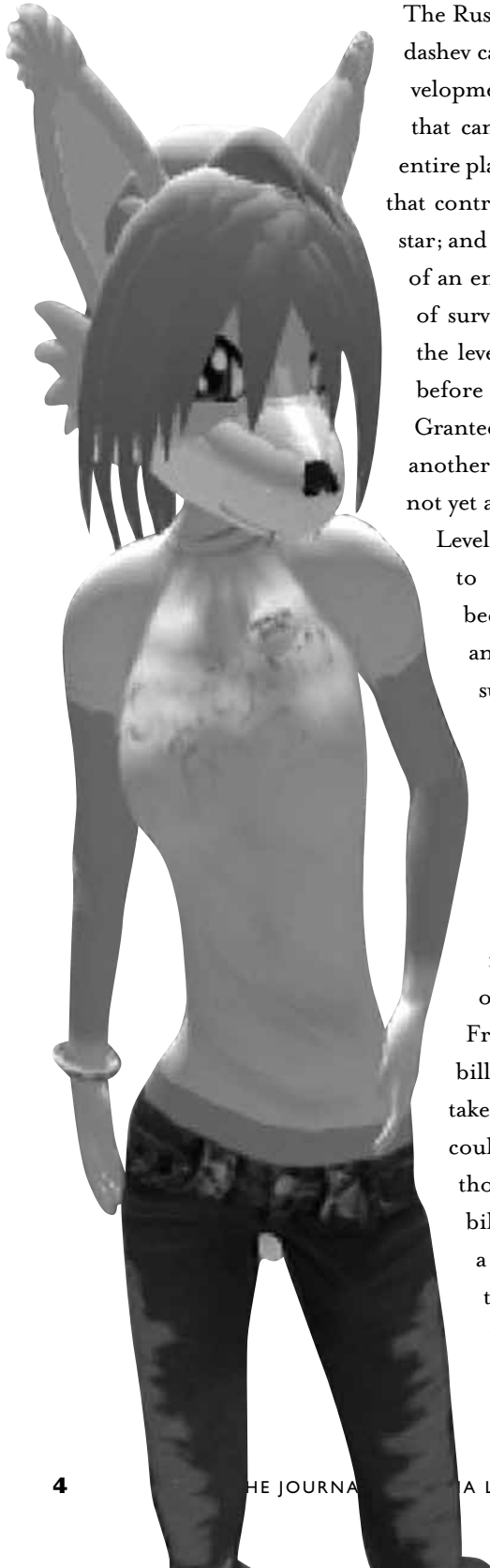
The good news is that we are roughly about 70% on the way to becoming a Type I civilization. Calculations show that the remaining 30% can be developed in the next 200 years. From then the necessary 10 billion-fold increase needed to take us to a Type II civilization could be accomplished in a few thousand years and another 10 billion-fold increase to reach a Type III civilization would take 100s of thousands of years. If we continue as we are with technological advancements without falter-

ing, within a million years we will be able to help insure our survival by developing a Type III civilization something along the lines of the future depicted in Star Trek or Star Wars.

So here is the immediate problem facing our civilization. In 1965, Gordon Moore, one of the founders of Intel Corporation, predicted the number of transistors that could fit in a given area would double every 18 months for the next ten years. It turns out he was right and that his prediction has actually held true for the past 40 years. With Moore's Law we are doubling our technological capabilities every 18 months while the human capacity to accommodate this growth develops at a rate of about 3 IQ points every ten years. This creates exponential technological growth that is surpassing human mental development by many orders. Humans are on the way to extinction. Sapiens, on the other hand, will survive into the future by dissolving the distinction between our slow biological human substrate to evolve into an increasingly non-biological post-human species.

As a result of the disparity between the exponential growth of technology and the glacial evolution of human "nature," we are not able to develop the theoretical and conceptual constructs to ground our thinking in a technological landscape that is transforming beneath our feet. With a few notable exceptions, we lack the new Marshall McLuhans who can guide us through these troubled media waters. Philosophers like Daniel Dennett and media scholars like Henry Jenkins are among those few who are capable of closing the gap between the theoretical and conceptual challenges arising from the slow chemical-electrical processing power and limited storage capacity of the human brain in contrast with the lightning fast digital processing capacity and exponentially growing storage and retrieval capacity of machines.

Yale Law School professor Ian Ayres wrote a book about those who analyze massive databases at lightning speed and calls them, and his book, *Super Crunchers*. He gives a reassuring nod to the role of human intuition and expertise but says that ulti-



mately, when it comes to a competition between human expertise and machine equations, "It will just be accepted that it's not a fair fight. ...When there are enough data, Super Crunching is going to win." (Ayres, p. 216)

Are we wasting too much of our limited capacity to develop useful media theory by having to assuage the fears of those who only see threat and danger arising from the most exhilarating advances in media technology? Do we squander our limited intellectual resources having to overcome backward ideological dogma and the selfish egoism of the hegemonic corporate complex? Our tentative and retreating steps may be more dangerous in crossing the multi-lane media superhighway than a sure and decisive forward movement.

In his book, *From Counterculture to Cyberculture*, Fred Turner provides a glimpse into how Stewart Brand, editor of the Whole Earth Catalog in the 60s, transformed from an icon of the counterculture movement to a digital utopian who sees technology as a path toward personal liberation. Stewart Brand is a virtual missing link between humanistic survivalism as exemplified by his Whole Earth Catalog to technological utopianism as exemplified by helping found *Wired* magazine. Turner describes how Brand and his influential colleagues made the transition from Human to Sapien in the span of 30 years. He shows us how the distance from the Grateful Dead to *Google* is not as far as it might seem. (Turner)

## STRATEGIES FOR TRANSITIONING FROM HUMAN TO SAPIEN

Several strategies are developing that are beginning to augment our limited mental capacity. Some of these are the result of efforts to improve our "hardware" (genetic modification, bionanotechnological enhancements) and others are the equivalent of developing better neural "software" (social adaptations). Kurzweil maintains that the first half of the 21st century will be characterized by overlapping revolutions

in GNR—Genetics, Nanotechnology, and Robotics. These will lead to "the virtual elimination of disease, dramatic expansion of human potential, and radical life extension." (Kurzweil, p. 205)

## Collaboration

One way that we are finding to exceed the limitations of our finite brains is widespread collaboration. The crowd is smarter than the individual. Recent studies of "swarm" behavior in birds and insects have shown how complex activities can be carried out by masses of small entities that individually are unconscious of the main thrust of their activity. *Wikipedia* will produce a better encyclopedia than *Britannica*. *YouTube* will provide faster, more comprehensive and more accurate information than *Network News*.

In his book *Group Genius*, Keith Sawyer shows why much of our history needs to be rewritten to more accurately show that many accomplishments mistakenly portrayed as the accomplishments of lone geniuses were part of the hidden collaboration that drives individual creativity. Sawyer says, "We began to see that innovations once believed to be the creation of a genius actually emerged from invisible collaborations, and that collaboration was responsible for famous creations throughout history." (Sawyer, p.8)

Scott Berkun reinforces this new perspective in his book, *The Myths of Innovation*. He explores several myths about innovation, why they continue to be popular even though they are myths, and what are some more useful and realistic ways to think about innovation from a more contemporary and informed perspective. Among these myths is the idea of epiphany. Newton's apple myth is a story of epiphany or "a sudden manifestation of the essence or meaning of something." (Berkun, p.4) Berkun and others are rewriting history to show that despite the myths, "...innovations rarely involve someone working alone, and never in history has an invention been made without reusing ideas from the past." (Berkun, p. 79)

James Surowiecki joins this discussion in his book, *The Wisdom of Crowds*. He argues that large groups of people are smarter than an elite few, no matter how brilliant. He says we are coming to the realization that groups are remarkably intelligent and are often smarter than the smartest people in the group. Furthermore, the group does not need to be guided by exceptionally intelligent people in order to be smart even if the people in the group are not especially well informed or rational. (Surowiecki)

## Simulation

Simulation through the construction of virtual environments is another strategy to enhance our mental capacity. Mathematicians and scientists have long discovered the value and necessity of mathematical modeling to solve complex problems with disjunctive or chaotic features. Video games are forms of simulated, virtual environments that allow one to learn by repeated trials without harmful consequences. A pilot can make hundreds of simulated flights at a fraction of the cost, time, and danger of real flights.

*Second Life*, the interactive virtual world that is a 3D computer simulation developed by Linden Lab, gives us multiple opportunities to learn how to get our first life right. *Second Life* is less a game than a virtual society. There are no foes to vanquish or quests to fulfill. (Carr & Pond)

The real news source, Reuters, has set up a virtual bureau in *Second Life*. Adam Reuters is Reuters' bureau chief stationed in *Second Life*. In real life, he is Adam Pasick, a veteran tech and media journalist. ([HTTP://SECONDLIFE.REUTERS.COM](http://secondlife.reuters.com)) Similarly, IBM got involved with *Second Life* because they see the beginning of a major transformation of how people are going to interact on the Web—going from a flat (2D) to an immersive 3D experience.

In his book, *What Video Games Have to Teach Us About Learning and Literacy*, Jim Gee argues that video games are often intricate learning experiences that teach

us a great deal about the changing world of learning and literacy. What people are learning may not always be good but "...what they are doing when they are playing good video games is often good learning." (Gee, p. 199)

Consider one of the principles of media literacy that says all media are constructions that don't simply reflect external reality but are crafted by someone. How does that principle change when some of the media messages are constructed by machines? Will we ascribe "motives" or "intent" in the same way?

## Convergence

We have already touched on a third strategy—media convergence. Various media will be integrated and converge like the Apple iPhone in which one device provides multiple media functions. Very soon we will be able to watch movies on our cell phones. And there will be increasing convergence of biology and technology. Bionanotechnology will enhance human productivity and longevity as well as allow us to "grow" more technology on biological substrates. Media will converge with each other and with us. Media may be implanted in our accessories, clothes, and bodies. Cell phones may be more like cochlear implants. The default status for media may be "on" and you may, if you ever feel the need, have to consciously turn off your implanted audio receiver and transmitter for telephony and digital data transmission and the holographic video being projected directly onto your retina. Your implanted media devices will put you to sleep, wake you up, and be constantly in the "on" mode for 24 hour audio-visual reception, processing and transmission.

In his book, *Convergence Culture*, Henry Jenkins describes many examples of people taking a more participatory approach to media by creating their own versions or extensions of popular media and inserting themselves into the protected corporate structures surrounding much mass media. These interventions range from "spoilers" seeking early clues to the outcomes of shows like "Survivor" and "American Idol"



and people creating grassroots variations on movies such as *The Matrix*, *Star Wars*, and *Harry Potter*. (Jenkins)

Jenkins describes how media are being transformed where old and new media intersect, where grassroots and corporate media collide, and where the media producer and the media consumer transfer power in unpredictable ways. When we consider the media literacy principle that says audiences negotiate meaning in the media according to individual factors like personal needs and anxieties, racial and sexual attitudes, family and cultural background, etc., will that still have relevance to machine-made media?

### Teleportation

A fourth strategy and growing trend is virtual teleportation. Your body no longer needs to sit in a vehicle crammed in stop-and-go traffic each morning and night as you transport yourself between your home and work. Two-way holographic projection and other media technologies will save you time, money, and frustration while allowing you more freedom to work from your home or a group office within walking distance from your home.

Holographic 2D projection technology suggests a new generation of pocket-sized digital video projectors and miniature projection displays incorporated into other handheld devices. Video projectors based on this holographic technology can be made very small so a projector could be integrated into a laptop, a PDA, or even a mobile phone. Current digital video projectors, while they produce large, high quality images and are becoming cheaper with mass production, are built on a technology that is limited in the capacity to be miniaturized, prevent-

ing projectors from being incorporated into mobile device markets. Holographic projection of 2D (rather than 3D) images represents a compelling alternative to conventional image projection. (WWW.WIKIPEDIA.ORG)

The University of California's Institute for Creative Technologies designed an Interactive 360 degree display that won the Best Emerging Technology Award at SIGGRAPH 2007. (SIGGRAPH is a hugely influential annual international conference and exhibition on computer graphics and interactive techniques.) USC's display system is capable of producing 3D images, which can be viewed by multiple users. It is clear that the ability to have multi-person face-to-face conversations through virtual technologies is on the immediate horizon. (WWW.SIGGRAPH.ORG/S2007/)



Media Literacy helps people see that form and content are closely related with each medium having its own grammar and way of codifying reality. How does that change when the media is a projection of us speaking in real time but appearing simultaneously to others in a distant place as a 3D image? What are the implications of the ability of machines to transfer complete data files to each other at incredible speed intact and without distortion?

### Participation

Another strategy is widespread participation in media production by anyone with a computer, camera, cell phone or an Internet connection. Sites like *YouTube* are filled with parodies, remixes, take-offs, reinterpretations and variant episodes of popular shows created by viewers to satisfy their own creative impulses. In *Convergence Culture*, Henry Jenkins explores what he calls “the politics of participation” where viewers don’t intend to be passive consumers of programming but become active participants in its production, selection, and distribution. Sites like *Wikipedia* represent this trend toward reader-moderated media content where the public contributes to the ongoing evolution of a living encyclopedia of knowledge rather than relying on academic authorities. (Jenkins)

Think how ubiquitous participatory media affect one’s understanding of the basic media

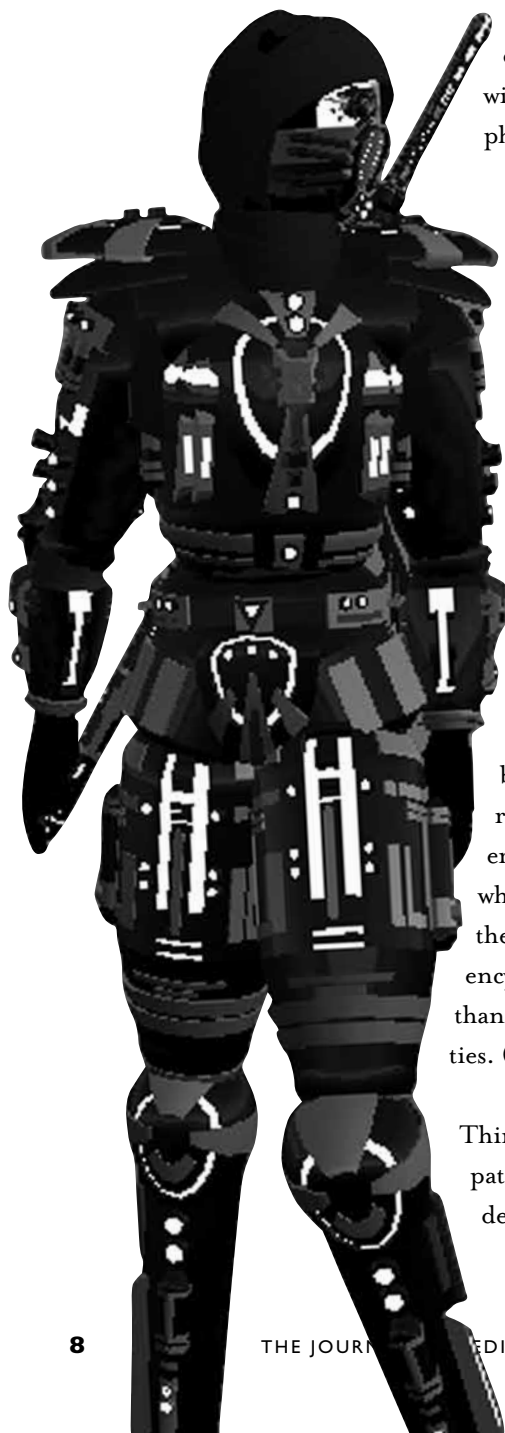
literacy concept that people experience the same messages differently. One can easily see this exemplified by reading a typical blog on any given topic. The transition to participatory media is significant enough that it is spawning protests from those who want to preserve the older system in which “professionals” controlled the media. Andrew Keen’s book, *The Cult of the Amateur: How Today’s Internet Is Killing Our Culture* presents a defense of the more controlled tradition of expert control of media. He laments that “what the Web 2.0 revolution is really delivering is superficial observations of the world around us rather than deep analysis, shrill opinion rather than considered judgment.” (Keen)

Neil Gershenfeld shows that personal production is not limited to 2-dimensional images but can be extended to the personal creation of 3-dimensional objects as well. In his book, *Fab*, Gershenfeld explains the growing capacity to design and produce your own products in your own home with personal industrial tools comparable to a printer attached to your computer. Such digital media enable school children to produce jewelry designed on the computer and “printed” with a 3-D printer. He says that this capability is the leading edge of a post-digital literacy in which digital fabrication is as familiar as information processing. (Gershenfeld)

We have become accustomed to thinking of “media” as primarily 2-dimensional representations (print, film, video, etc.). Gershenfeld’s depiction of personal 3-dimensional mediated production, along with the development of many virtual worlds that encompass large virtual spaces, and the accompanying interactivity and experiential components of virtual experiences, cause us to consider whether new media must be recognized as including not only images, but objects, spaces and experiences.

### Transparency

Transparency, reflected in tendencies toward open source technology, is another related widespread



strategy to optimize learning. In many areas there is a growing tendency to value access to the design and production of goods and knowledge. It is becoming increasingly difficult and unfashionable to try to control intellectual property. According to *Wikipedia*, the open source model can be extended to general decision-making, which allows concurrent input of different voices, agendas, approaches and priorities, in contrast with more centralized models of development such as those typically used in commercial companies. Open source culture is where collective decisions are shared during development and made generally available in the public domain, as done in *Wikipedia*. Participants in such a culture are able to modify the collective outcomes and share them with the community. Some consider open source as one of various possible design approaches, while others consider it a critical strategic element of their operations. (WWW.WIKIPEDIA.ORG)

Other examples of this trend can be seen in actions like the Massachusetts Institute of Technology (MIT) putting its courses online for anyone to access free. MIT's Open Course Ware (OCW) program shares free lecture notes, exams, and other resources from more than 1700 courses spanning MIT's entire curriculum. (HTTP://OCW.MIT.EDU) Similarly, presentations at the Technology, Entertainment and Design (TED) conferences for which attendees pay thousands of dollars, are available in high quality video for free on-line. (WWW.TED.COM) (This unique annual conference brings together one thousand of the world's top thinkers and doers, who are challenged to give the talk of their lives in 18 minutes.) These two resources alone provide a tremendous window into today's best available knowledge and ideas.

The flip side of the transparency condition is that there will be no place for us to hide. Global positioning systems and the ability to track us through our media devices indicate a future in which we will live much more of our lives in the open. Ubiquitous surveillance cameras, software that collects

data on us every time we do a search or make a purchase on-line, alarm some people today but will become used to it? Don't we already appreciate how many culprits are caught by reviewing the surveillance videos of some business near the commission of a crime?

## Implications

Ever since our ancestors killed off the last Neanderthal some 40,000 years ago, we have enjoyed the key role among sentient creatures in our known universe. That enviable position is about to change. Traditional humans are about to be surpassed by a post-human intelligence. This doesn't need to result in inevitable human extinction. We can continue to live peacefully like the thousands of other species that co-existed with us for the past 400 centuries. The fact that thousands of these species have become extinct by our actions makes us hope the new order will treat us more kindly.

The new Sapien species will work and blend with the technologies we have already developed. Man and machine will no longer be a dichotomy. Media, technology and humans, in many ways, will be indistinguishable. In many ways, we will not just use media—we will be media—the ultimate convergence.

If all of this was off in some distant future—thousands or even hundreds of years from now—we could comfortably continue on our merry paths and let the next generations sort it out. But this is happening in our century—in our lifetimes. Our children and, for that matter, many of us will be part of this transition.

Think about even a mild form of this future and simply address the idea that the next generation will likely live to at least 150 years of age. Using the normal pattern, that might mean that we will spend about 50 years in the learning and preparation phase of our lives, 50 years of productive work, and 50 years in retirement. Currently, many people spend about 30 years in each of those stages. Think about

the implications of any one of those stages—50 years of education? 50 years of work? 50 years in retirement? How much wiser will we inevitably be with the benefit of 50 years to develop knowledge, skills and wisdom? How much more interesting will work have to be to look forward to 50 years before retirement? And how will retirement need to change when we realize that we may be around for another 50 years?

WHAT WILL HAPPEN WHEN ONE OF  
THE ANSWERS TO A STANDARD MEDIA  
LITERACY QUESTION LIKE “WHO CREATED  
THIS MESSAGE?” IS “A MACHINE!”?

Of course, it is unlikely that these activities will exist as discrete chunks of time. People may do the traditional 18 to 30 years in preparation, work for a while, and then go back to some form of intensive learning. The activities of life, with the addition of more time, will likely be overlapping and intertwined rather than discrete blocks. People will likely have many jobs throughout their lives, go back to school (or its future equivalent) several times, and perhaps retire more than once. The point is that, collectively, there will be more time available for learning, working, and living. Currently, many people end their formal education at about the time their brain is first fully physically functional. Imagine the effect of another 25 years of disciplined learning on a fully functional adult brain.

Collaboration, simulation, convergence, teleportation, participation, and transparency are just the beginnings of new paradigms being developed to help finite minds assimilate infinite possible futures. Within our lifetimes, concepts, knowledge, skills, and capacities will multiply a billion fold and individual human brains will no longer have the speed, power, or capacity needed to manage this tsunami of change. This will require the development of new media literacies and the transformation of our global education systems virtually overnight.

What will happen when one of the answers to a standard media literacy question like “Who created this message?” is “A machine!”? Will machine-made media also exhibit ideological and value messages with social and political implications in the same way as traditional media? Will machine-media have embedded values and points of view? Will machines construct messages to gain profit or power? What would it mean for a machine to have a “life-style,” “values,” or “point of view?” Will these even be meaningful questions related to machine-media? Addressing these, and related questions, will require us to know a bit more about artificial intelligence and may, in the process, help us learn a lot more about what it means to be human. \*

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# What Wikipedia Can Teach Us About The New Media Literacies

BY HENRY JENKINS

In the winter of 2007, Vermont's Middlebury College found itself the center of a national controversy when its history department took a public stand against students referencing Wikipedia in their research papers.<sup>1</sup> The ban had been inspired by one faculty member's discovery that a large number of his students were making the same factual error (dealing with the role of Jesuits during the Shimabara Rebellion in 17th century Japan) which could be traced back to a bit of misinformation found in one entry of the online encyclopedia. Despite the publicity that surrounded it, the statement was scarcely a condemnation of Wikipedia: "Whereas Wikipedia is extraordinarily convenient and, for some general purposes, extremely useful, it nonetheless suffers inevitably from inaccuracies deriving in large measure from its unique manner of compilation." Students were asked to take responsibility for the reliability and credibility of the information they used in their papers; Students were told not to use Wikipedia as a scholarly source.

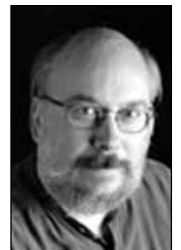
Jimmy Wales, the co-founder of Wikipedia, publicly supported the Middlebury History Department's decision: "Basically, they are recommending exactly what we suggested—students shouldn't be citing encyclopedias. I would hope they wouldn't be citing Encyclopaedia Britannica, either. If they had put out a statement not to read Wikipedia at all, I would be laughing. They might as well say don't listen to rock'n'roll either."<sup>2</sup> Despite Wales's statement, Middlebury's announced policy inspired a series of

national editorials; leading journalists and scholars weighed in on the perceived merits of the Wikipedia and on the credibility of online information more generally. The Middlebury History faculty were cast as poster children in the backlash against Web 2.0 and its claims about the "wisdom of crowds."

Wales's analogy between Wikipedia and "Rock'n'Roll" suggests that the Wikipedia debate has also become emblematic of the divide separating the generation that grew up in a world where digital and mobile technologies are commonplace from their parents, teachers, and school administrators for whom many of these technologies still feel alien. As Jonathan Fanton, president of the John D. and Catherine T. MacArthur Foundation, wrote in an op-ed piece published on the eve of this conference, "The real gap between tomorrow's digital haves and have-nots will be a lag in competence and confidence in the fast-paced variegated digital universe building and breeding outside schoolhouse walls.... Today's digital youth are in the process of creating a new kind of literacy; this evolving skill extends beyond the

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traditions of reading and writing into a community of expression and problem-solving that not only is changing their world but ours, too... In this new media age, the ability to negotiate and evaluate information online, to recognize manipulation and propaganda and to assimilate ethical values is becoming as basic to education as reading and writing."<sup>3</sup>

Responding to these challenges, the MacArthur Foundation has committed 50 million dollars over the next five years to support research which will help us understand the informal learning which takes place as children interact within the new media landscape and how we might draw on the best practices that emerge from these new participatory cultures as we redesign school and after-school pro-

grams. I was part of a team of MIT based researchers which drafted a white paper that accompanied the MacArthur announcement and sought to identify some of the core social skills and cultural competencies that young people need to acquire if they are going to be full participants in this new media environment.<sup>4</sup> And I am the principal investigator for Project nml, a MacArthur

funded effort to develop resources to support the teaching of these skills through in-school and after-school programs. Among these is a documentary about the Wikipedia movement and an accompanying curricular guide. This documentary is one of a number of short films produced for online distribution through the Project nml exemplar library.

Here, I will draw on the interviews and research behind the documentary to explore what Wikipedia (and the debate around it) might tell us about the new media literacies. Through looking more closely at what young people need to know about Wikipedia, I hope to suggest some of the continuities (and differences) between this emerging work on New Media Literacies and the kinds of concerns that

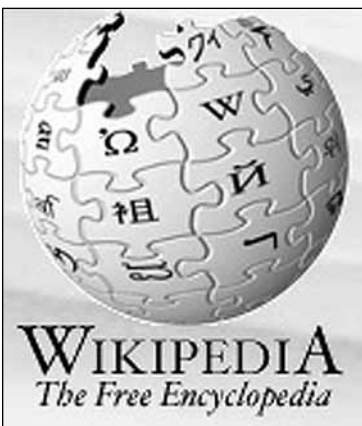
have occupied the Media Literacy community over the past few decades.

## THE NEW MEDIA LITERACIES

According to a recent study from the Pew Center for Internet & American Life, more than half of all teens have generated media content and roughly a third of teens online have shared content they produced with others.<sup>5</sup> In many cases, these teens are actively involved in what we are calling participatory cultures. A participatory culture is one where there are relatively low barriers to artistic expression and civic engagement, where there is strong support for creating and sharing what you create with others, where there is some kind of informal mentorship whereby what is known by the most experienced gets passed along to newbies and novices, where members feel that their contributions matter, where members feel some degree of social connection with each other at least to the degree to which they care what other people think about what they have created.<sup>6</sup>

A growing body of scholarship suggests potential benefits of these emergent forms of participatory culture, including opportunities for peer-to-peer learning, a changed attitude towards intellectual property, the diversification of cultural expression, the development of skills valued in the modern workplace, and a more empowered conception of citizenship. Access to this participatory culture functions as a new form of the hidden curriculum, shaping which kids will succeed and which will be left behind as they enter schools and workplaces.

Not all of these skills are dramatically new—they are extensions on or elaborations of aspects of traditional research methods, text-based literacies, and critical analysis that have long been valued within formal education. In some cases, these skills have taken on new importance as young people move into emerging media institutions and practices. In some cases, these new technologies have enabled shifts in how we as a society produce, dissect, and circulate information.



While some have argued that these new media skills represent the different mindsets of “digital natives and digital immigrants”, that analogy breaks down for us on several levels. First, the participatory cultures we are describing are ones where teens and adults interact but with less fixed and hierarchical relations than found in formal education. It is a space where youth and adults learn from each other, but it would be wrong to see young people as creating these new institutions and practices totally outside of engagement with adults. Second, the “digital natives” analogy implies that these skills are uniformly possessed by all members of this generation; instead, young people have unequal access to the technologies and cultural practices out of which these skills are emerging and so we are facing a growing participation gap in terms of familiarity with basic tools or core cultural competencies.

Even if we see young people as acquiring some of these skills on their own, outside of formal educational institutions, there’s still a strong role for adults to play in insuring that young people develop a critical vocabulary for thinking about the place of media in their lives and engage in meaningful reflection about the ethical choices they make as media producers and participants in online communities. While the MacArthur researchers take seriously youth innovations through media and respect the meaningful role that these experiences play in young people’s social and cultural lives, they also value what teachers, parents, librarians, youth workers, and others bring to the conversation. We want to help these adults respond to the changing circumstances young people face in a period of prolonged and profound media change. It is our belief that these new media literacies need to inform all aspects of the educational curriculum; they represent a paradigm shift in how we teach English, social science, science, math, and the other schoolroom subjects. If these skills are going to reach American young people, it is going to require the active participation and collaboration of all of those individuals

and institutions who impact young people’s moral, intellectual, social, and cultural development.

Our initial report raised three core concerns, which suggest the need for policy and pedagogical interventions:

1. **The Participation Gap**—the unequal access of youths to the opportunities, experiences, skills, and knowledge which will prepare them for full participation in the world of tomorrow.
2. **The Transparency Problem**—the challenges young people face in learning to see clearly the ways that media shapes our perceptions of the world.
3. **The Ethics Challenge**—the breakdown of traditional forms of professional training and socialization which might prepare young people for their increasingly public roles as media makers and community participants.

Educators need to work together to insure that every American young person has access to the skills and experiences needed to become a full participant; that all have the ability to articulate their understanding of the way that media shape our perceptions of the world, and have been socialized into the emerging ethical standards which should shape their practices as media makers and participants in online communities.

This context places new emphasis on the need for schools and after-school programs to foster what we are calling the new media literacies—a set of cultural competencies and social skills which young people need as they confront the new media landscape. Participatory culture shifts the focus of literacy training from individual expression onto community involvement: the new literacies are almost all social skills which have to do with collaboration and networking. Just as earlier efforts at media literacy wanted to help young people to understand

their roles as media consumers and producers, we want to help young people better understand their roles as participants in this emerging digital culture.

In the discussion of Wikipedia that follows, I am going to be emphasizing four of the eleven skills we identify in our report:

**Collective Intelligence**—the ability to pool knowledge and compare notes with others towards a common goal.

**Judgment**—the ability to evaluate the reliability and credibility of different information sources.

**Networking**—the ability to search for, synthesize and disseminate information.

**Negotiation**—the ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative sets of norms.

## WIKIPEDIA RECONSIDERED

Many educators express concern about young people's increased reliance on Wikipedia as a resource for their homework assignments and research projects. These teachers worry that youth aren't developing an appropriate level of skepticism about the kinds of information found on this particular site. There are legitimate concerns about the credibility of online information and the breakdown of traditional notions of expertise which should be debated. Our documentary project, and this article, reflect our assumption that these vital debates need to be shaped by a clearer picture of the Wikipedia movement. Our ultimate goal is not to convince you to use Wikipedia in your classes, but rather to argue that in a world where many young people are turning to this as a key source for information, educators need to understand what is going on well enough to offer them meaningful advice and guidance.

Much as educators responded to the debates in the 1990s about "political correctness" and multiculturalism by arguing that we should "teach the debate," today's educators should help young people to understand competing arguments about the value of Wikipedia. In this context, it is not enough to construct policies restricting the use of Wikipedia as a source if we don't help foster the skills young people need in order to critically engage with a site which has become so central to their online lives.

I am reminded of a powerful statement by Renée Hobbs about the role that media literacy education should play in shaping young people's relationship to news and information: "Some students, when asked to ask questions about the believability of media texts, may respond from deep within the familiar adolescent state of alienation and mistrust. In a more or less conscious way, they may answer, 'I can't believe in any of this information. Nothing is believable.' This cynical perspective is the antithesis of what the educational experience strives to foster. It is informed skepticism and a sense of the power of communication as a form of action to transform and shape society that educators hope to impart to students."<sup>7</sup> The same might be said of teachers and their relationship to Wikipedia: educators need to adopt an "informed skepticism" rather than a dismissive attitude. Wikipedia is a very rich site for teaching young people about many of those things that have historically been at the heart of the media literacy movement but we can only capitalize on its potentials if we understand how it works and what it is trying to do.

Here's what the About Wikipedia site tells us about the project: "There are more than 75,000 active contributors working on some 5,300,000 articles in more than 100 languages. As of today, there are 1,843,251 articles in English; every day hundreds of thousands of visitors from around the world make tens of thousands of edits and create thousands of new articles to enhance the knowledge held by the Wikipedia encyclopedia."<sup>8</sup> All of this development

has occurred since Wikipedia launched in 2001. This volunteer army of writers, editors, and fact-checkers has been supervised, if we can use that word, by a paid staff of roughly five people. So much negative attention has been directed against Wikipedia that it is easy to forget the idealistic goal which motivates all of this activity. As Jimmy Wales explains, "Imagine a world in which every single person on the planet is given free access to the sum of all human knowledge. That's what we're doing."<sup>9</sup>

Wikipedia has benefited enormously from its use of the encyclopedia analogy. People already know what an encyclopedia looks like; they start from a shared understanding of the kinds of information it contains, language it deploys, and functions it serves. This familiarity with basic genre conventions allows large numbers of people to roll up their sleeves and start working and even more people to go to use Wikipedia as a central reference work.

Yet, like most analogies, calling Wikipedia an encyclopedia clarifies some aspects of the phenomenon while obscuring others. Describing it as an encyclopedia emphasizes Wikipedia as a product rather than focusing attention on the ongoing process by which its community pools information, debates what knowledge matters, and vets competing truth claims. Encyclopedias we have known in the past were depositories of an always already completed process of writing and research.

Wikipedia is something different. Andrea Forte, a Georgia Institute of Technology researcher who has studied Wikipedia, told our production team, "When you first come to Wikipedia, it really seems like a collection of articles. It seems like a bunch of pages about different topics. Now when you talk to people who are very involved in Wikipedia, it becomes a collection of people who are carrying out a project... Wikipedia was a place where people were coming together to write about the world and figure out what's true about the world and

what kinds of facts are important to know about the world. These are the kinds of things I think students should be doing."

Critics also argue that the analogy to an encyclopedia is misleading. Robert McHenry, a former editor of the Encyclopedia Britannica, argues, "To the ordinary user, the turmoil and uncertainty that may lurk beneath the surface of a Wikipedia article are invisible. He or she arrives at a Wikipedia article via Google, perhaps, and sees that it is part of what claims to be an "encyclopedia." This is a word that carries a powerful connotation of reliability. The typical user doesn't know how conventional encyclopedias achieve reliability, only that they do."<sup>10</sup>

Surely, the appropriate response to the problem which McHenry identifies is not to turn our backs on the enormous value of the Wikipedia project but

WIKIPEDIA IS A VERY RICH SITE FOR TEACHING YOUNG PEOPLE ABOUT MANY OF THOSE THINGS THAT HAVE HISTORICALLY BEEN AT THE HEART OF THE MEDIA LITERACY MOVEMENT BUT WE CAN ONLY CAPITALIZE ON ITS POTENTIALS IF WE UNDERSTAND HOW IT WORKS AND WHAT IT IS TRYING TO DO.

rather to help young people place Wikipedia in a larger context, developing a deeper understanding of the process by which its information is being produced and consumed. Wikipedians would push us further, arguing that we also should develop a more critical perspective on other, more traditional sources of information. If McHenry is correct that most people don't know how conventional encyclopedias achieve reliability, that should be an indictment of how our schools teach research skills, not an excuse to blindly accept Britannica.

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# Teaching the New Media Literacies Framework

BY ALICE J. ROBISON

How are we preparing MIT's graduate and undergraduate students for the work they are doing on Project NML?

Teaching students to be critical thinkers, readers, and writers is difficult in just about any academic setting, but it can be especially challenging for media literacy educators. Popular media might often seem to be in competition with schools' content learning goals, where war metaphors are often used to describe the "barrage" of "bullet-like" messages "bombarding" our students' minds and "occupying" their free time. Media Literacy has long sought to help students develop the critical skills needed to be discerning consumers and more frequently, active producers of media content.

Yet, the new media literacies push us further—to think about their roles as active participants in online



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communities, gaming guilds, fan cultures, and social networks. Here at MIT, the New Media Literacies Project seeks to help educators develop professional techniques, ideas, and strategies for working with new media, as Henry Jenkins (this issue) explains.

How do we make the ideas and framework of the New Media Literacies Project useful to pre-service educators, educational technologists, librarians, legal scholars, literacy specialists, or for that matter, students in media studies?

This past spring, I was invited to teach a graduate course titled New Media Literacies that would expand and support the concepts put forth in the New Media Literacies white paper, published in October, 2006 for the MacArthur Foundation's Digital Learning Initiative. The purpose of the course was to provide students with a solid theoretical understanding of what it means to think about media production and consumption as literacy practices. At the same time, I wanted to give students the opportunity to act as educators and design materials for teaching new media literacy concepts that themselves represented the new ways of thinking about both interpreting and making media. The course was offered as a special topics mixed undergrad/grad course in the Comparative Media Studies Program;

it enrolled ten students total and a handful of auditors who joined us regularly.

The syllabus I created was designed to provide students with some rapid reading in the area of contemporary media literacy by introducing them to some of the progressives in the area, including Renee Hobbs and David Buckingham. At the same time, we read from the print-based literacy tradition, beginning with Plato's *Phaedrus*, in which he expresses his deep skepticism of written language. Positioned opposite Plato was Walter Ong's "Writing is a Technology that Restructures Thought," in which Ong, once a student of Marshall McLuhan's, argues that the process of writing—of making meaning—is closely tied to thinking. "To say writing is artificial is not to condemn it but to praise it," says Ong. "Like other artificial creations and indeed more than any other, writing is utterly invaluable and indeed essential for the realization of fuller, interior, human potentials. Technologies are not mere exterior aids but also interior transformations of consciousness, and never more than when they affect the word" (23). The comparison between Plato and Ong helped students understand why similar debates arise with regard to digital technologies, and how perhaps both Plato and Ong might be viewed as privileging the technology more than the practice of using it.

I wanted to teach them about the "new" and "literacy" parts of new media literacies. Since my training as a literacy scholar was largely based in what is now called the New Literacy Studies (NLS), I assigned readings from NLS scholars who argue for an even further extension



of Ong's theories. Among the New Literacy Studies scholars are Deborah Brandt, James Paul Gee, Brian Street, Gunther Kress, Colin Lankshear, and Michele Knobel, all of whose work we read in the course. Jumping straight into the New Literacy Studies scholarship enabled students to think critically about where meaning is situated. Plato had argued that meaning comes from oral dialogue; Ong positioned meaning in the printed word. The New Literacy Studies looks instead at meaning-making as a process, as a "coming to know," as a series of both oral and print-based activities within particular contexts and social groups. Much of the NLS research is anthropologically-based and driven by topics of social justice, but what resonated most with the class were the concepts of multimodality (Kress and Van Leeuwen) and D/discourse analysis (Gee). But most important for these media studies graduate students, thinking in "new" ways about literacy enabled them to see why

participating in media production and consumption communities is a rich and cognitively valuable experience.

Students remarked that the practical applications of the theories we discussed were the most helpful when thinking about media literacy education. Nine of the fifteen weeks were devoted to heavy, theory-driven readings in media, literacy, and learning. During the other six weeks (interspersed throughout the semester), students wrote their own media literacy lesson plans. They focused on the skills and competencies of the NML framework (e.g., transmedia navigation, networking, judgment, play) and developed theoretically-informed activities which we then practiced in-class. Highlights of these student-led teaching days included lessons on editing digital video, making a podcast, and constructing a wiki. Combined with the regular sharing of viral videos, memes, and fun new

technology toys, these teaching days made for a nice counterbalance to a challenging set of course readings.

Final projects for the course, student-written lesson plans, photos, videos, readings, notes, and the course syllabus are available free for download via MIT's Open Courseware project, located at [HTTP://OCW.MIT.EDU](http://ocw.mit.edu). \*

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The Wikipedians sought to make the production of knowledge more transparent to everyday people. The practices around Wikipedia preserve traces of the disputes and disagreements that typically go on behind the scenes through the editorial processes that shape traditional reference works. Jason Mittell, a media studies professor at Middlebury College, explains, "Wikipedia is transparent in its goals and rules, explicitly listing its policies and guidelines. As far as I know, other encyclopedias offer no such reflexivity as to what they are, how they work, and what type of content and form they follow. As an educator, transparency provides an excellent teaching opportunity to get students to reflect on sources and their usage."<sup>11</sup> Mittell's blog

documents some of the teachable moments as his students tried their hands at producing their own Wikipedia entries:

"Aaron was one of the first to dive into Wikipedia, choosing to edit an entry on a Columbian volcano that he'd previously written a research paper about. As he blogged about his experiences, the act of becoming an editor made him feel invested in a topic that he'd otherwise just learned about as an assignment. Simply the act of sharing his knowledge made him feel like an expert and care about a remote subject. He followed up by considering how other people's edits to his information made him feel part of a community, even though the other editor was anonymous and remote..."

"Paxson created a new entry on Eagle Peak, a mountain near his hometown in Alaska. He discovered that unlike Aaron's entry, nobody seems invested in this topic, as he's the only editor who has contributed. But he did learn a lesson about copyright, as he uploaded his own photo of the mountain, which was immediately tagged for lacking the proper copyright - he needed to give it a public domain, GPL, or Creative Commons license to fit with Wikipedia policy. Although we'll be reading about copyright issues later in the semester, this hands-on experience with the practicalities of the system are far more pedagogically striking."

EDUCATORS ASK THE WRONG QUESTION  
WHEN THEY WONDER WHETHER WIKIPEDIA  
IS ACCURATE, BECAUSE THIS IMPLIES A  
CONCEPTION OF WIKIPEDIA AS A FINISHED  
PRODUCT RATHER THAN A WORK IN PROGRESS.

"...Scott had a less productive experience - he created an entry for the Middlebury College hockey team, which was "speedy deleted" for not justifying its notability. Scott and I sat down and together rebuilt the entry, following the template for other college sports teams with me teaching him some of the language and protocols for wiki editing, an experience which certainly increased his fluency and strengthened his awareness of how Wikipedia functions as a self-regulating process."<sup>12</sup>

Wikipedia empowers students to take seriously what they have learned in other classes, to see their own research as having potential value in a larger enterprise, and to take greater responsibility over the accuracy of what they have produced. Much as young people become more critical consumers of media when they have engaged in production activities, young people ask better questions about the nature of scholarship and research when they contribute to Wikipedia.

Educators ask the wrong question when they wonder whether Wikipedia is accurate, because this implies a conception of Wikipedia as a finished product rather than a work in progress. Wikipedians urge a more skeptical attitude: "Wikipedia's radical openness means that any given article may be, at any given moment, in a bad state: for example, it could be in the middle of a large edit or it could have been recently vandalized. While blatant vandalism is usually easily spotted and rapidly corrected, Wikipedia is certainly more subject to subtle vandalism than a typical reference work."<sup>13</sup>

The key word here is "at any given moment." The community has taken on responsibility to protect the integrity and accuracy of its contents; they have developed procedures which allow them to rapidly spot and respond to errors, and the information they provide may be more up-to-date than that found in printed encyclopedia which in school libraries might sit around for decades. As historian Roy Rosenzweig explains, "Like journalism, Wikipedia offers a first draft of history, but unlike journalism's draft, that history is subject to continuous revision. Wikipedia's ease of revision not only makes it more up-to-date than a traditional encyclopedia, it also gives it (like the web itself) a self-healing quality since defects that are criticized can be quickly remedied and alternative perspectives can be instantly added."<sup>14</sup>

Yet, the accuracy of an entry has to be judged "at any given moment." Some entries, which receive heavy traffic, also receive more regular attention than others which might represent tide pools that lay stagnant for extended periods of time. Someone using Wikipedia needs to assess the state of a current entry. The good news is that Wikipedia provides a series of tools that help us to trace and monitor the process by which an entry is taking shape.

We can see this process in action if we visit the entry on the Shimabara Revolution which caused such controversy at Middlebury (see Fig. 1). At the top of the site are two warning tags. The first tells us that



FIG. 1

“This article or section is in need of attention from an expert on the subject” and if we follow a link there, we find ourselves in a Talk section (see Fig. 2) where participants weigh in about the contents of the entry, including discussing extensively the criticisms raised by the Middlebury history faculty.<sup>15</sup>

This section tells us the entry is being reviewed by the WikiProject Japan, which is seeking to improve the quality of entries on Japanese history and culture and by the Military History WikiProject, which gives the entry a B for its overall quality. The section includes a list of details under dispute and tasks which still need to be completed.

Going back to the top level of the page (Fig. 1), we see a second and even more troubling flag: “This article does not cite any references or sources” and a link to a page which lays out standards of verifiability (see Fig. 3): “The threshold for inclusion in Wikipedia is verifiability, not truth. ‘Verifiable’ in this context means that any reader should be able to check that material added to Wikipedia has already been published by a reliable source. Editors should provide a reliable source for quotations and for any material that is challenged or is likely to be challenged, or it may be removed.”<sup>16</sup>

If one reads the history pages of most Wikipedia entries, one can see vigorous debates about what

counts as reliable evidence. Many of these pages offer compelling case studies that teachers could use to teach the logic through which historians, or other scholarly communities, interpret, evaluate, and contextualize the information they gather.

Wikipedia taps the power of networked culture by providing hyperlinks where-ever possible; this makes it very easy for readers to return to the original source and weigh its evidence for themselves. Wikipediaian Kevin Driscoll has proposed a game, much like the popular “Six Degrees of Kevin Bacon,” where students challenge each other to see who can find the quickest pathway between two seemingly unrelated concepts. So, for example, we might ask whether one could trace the connection between William Shakespeare and the Apollo Space Program in five or fewer links: We could go from William Shakespeare to his play, *The Tempest* (move one), from *The Tempest* to the science fiction film, *Forbidden Planet*, which was loosely based on Shakespeare’s plot (move two); from *Forbidden Planet* to the larger category of Science Fiction Cinema (move three); from Science Fiction Cinema to *La Voyage Dans La Moon*, one of the earliest science fiction films (move four); and from *La Voyage Dans La Moon* to the Apollo Moon Mission (Move five). This trajectory takes us between high and low culture, across the divides between science and the humanities, across

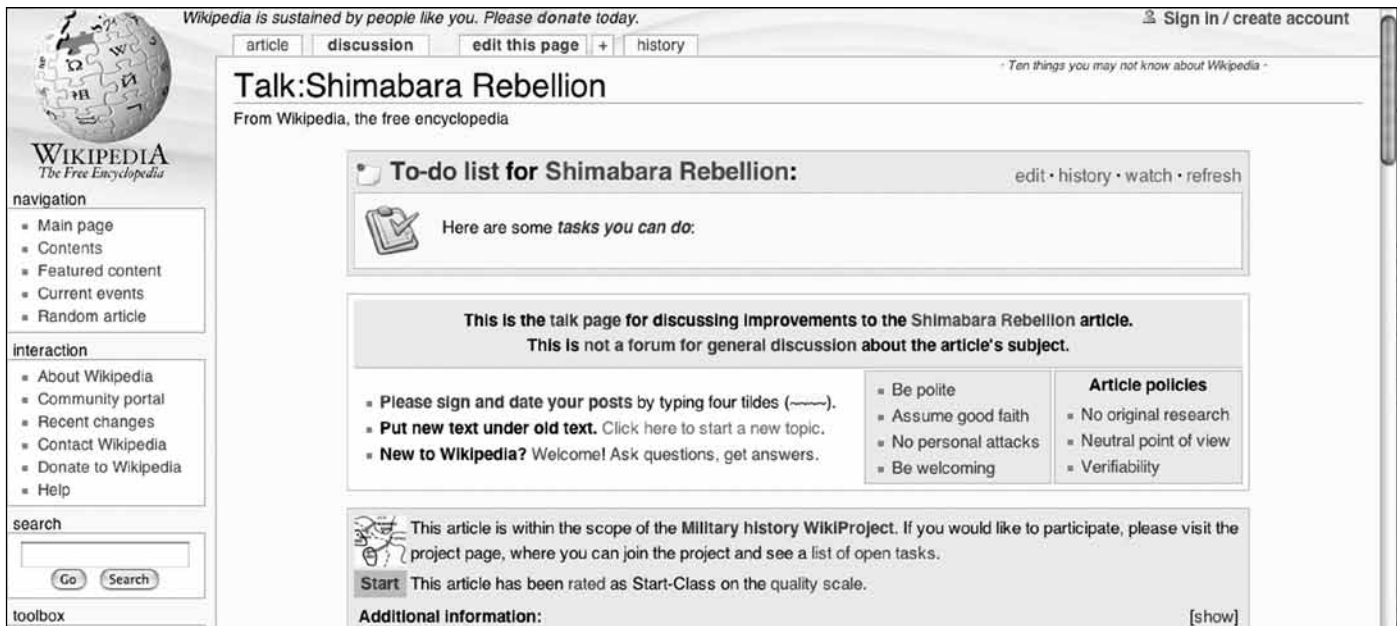


FIG. 2

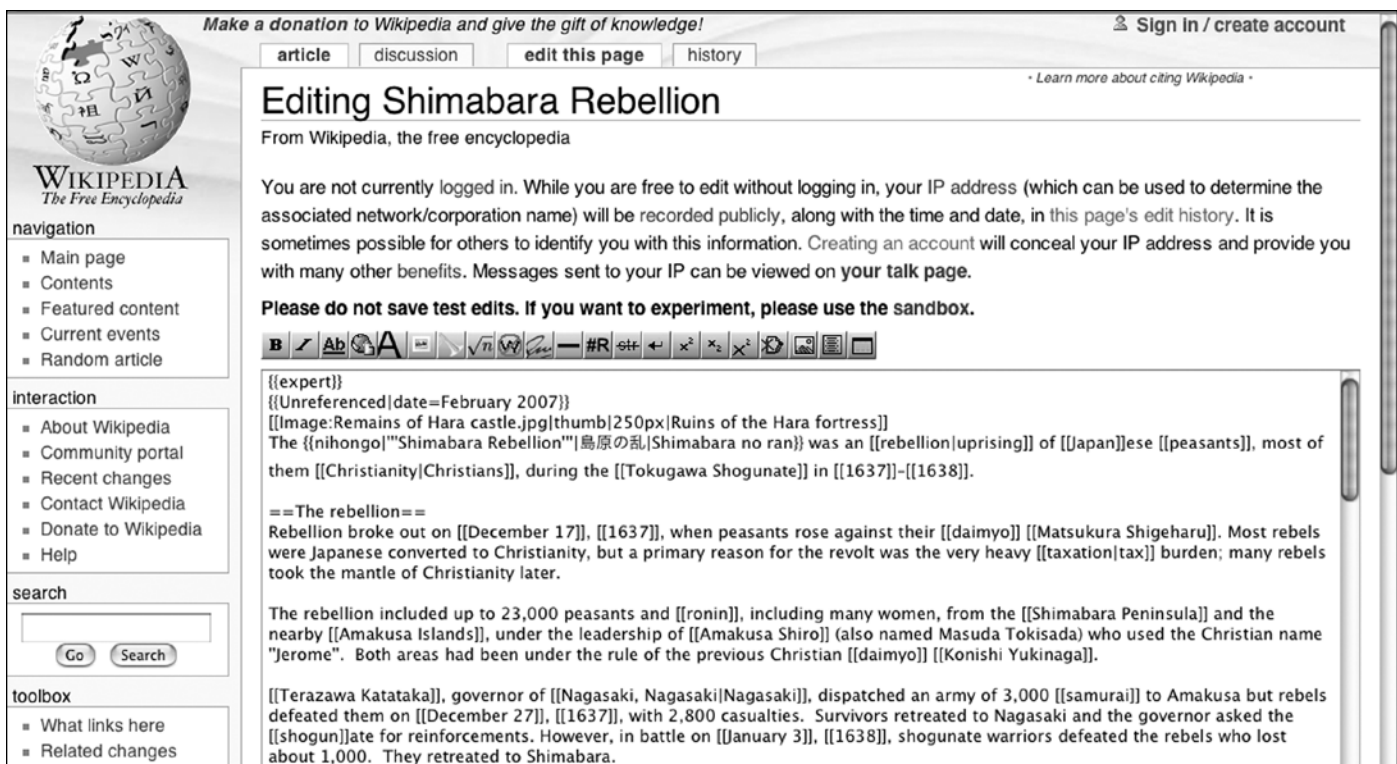


FIG. 3

several periods of human history and across three national borders.

In doing so, students follow their curiosity, tap their knowledge, and draw connections between topics that might not seem intuitively linked. As

Joseph Wang, one of the people we interviewed at the Wikimania conference, explained, "You have to just, every now and then just step back and say, 'What do I think is fun? What do I want to learn?' As you learn more you realize how much there is in the world that you don't understand. And that's

really fun. And the thing that I find fascinating about Wikipedia is that there is all this cool stuff that I didn't know I didn't know." Just as young people coming of age in a hunting based culture learn by playing with bows and arrows, young people coming of age in an information society learn by playing with information. This playful relationship to learning and knowledge is one of the things that motivate the community's participation, though the Wikipedians are quick to stress that they also take on very hard tasks, such as proofreading and fact checking pages.

The practices and tools that sustain Wikipedia are designed to insure the highest degree of transparency—the most controversial entries come with the maximum numbers of warnings. Yet, realistically, many young people are going to the site in search of quick data and may lack the critical vocabulary necessary to use its contents meaningfully. So, at the most basic level, a media literacy practice around Wikipedia needs to focus attention on the basic affordances of the site, so that students are encouraged to move beyond the top level and see what's going on underneath the hood.

Researchers have shown that the current generation of young learners often exploit digital tools to copy and paste information, sometimes getting confused about where any fact came from, or blurring the lines between their own insights and those from secondary sources.<sup>17</sup> Preliminary work from the researchers at a MacArthur funded project at the University of Southern California suggests that differences in access to digital technologies further impact young people's research practices.<sup>18</sup> Those children who have the most extensive access to networked computers are most likely to look critically upon the kinds of information that they draw from Wikipedia: they have the time to experience knowledge production as a collaborative process. For those young people whose only access is through schools and public libraries, however, they need to get in quick, get the information they need, and make way for the next user. These time constraints encourage them to see the web as a depository of information and often dis-

courage them from taking time to closely examine where that information comes from or under what circumstances it was produced. This is only one of the many consequences of what we are calling the participation gap.

The participation gap is shaped by uneven access to technologies but also by unequal access to formative experiences and thus unequal opportunities to acquire the social skills and cultural competencies we are calling the new media literacies. Participation in these online communities constitutes a new hidden curriculum which shapes how young people perform in school and impacts the kinds of opportunities they will enjoy in the future.

## RETHINKING EXPERTISE

At a time when schools still emphasize the autonomous learner and most kinds of research collaboration get classified as cheating, the Wikipedia movement emphasizes a new kind of knowledge production Pierre Levy has described as collective intelligence. As Levy notes, collective intelligence exploits the potential of network culture to allow many different minds operating in many different contexts to work together to solve problems that are more challenging than any of them could master as individuals. In such a world, he tells us, nobody knows everything, everyone knows something, and what any member knows is available to the group as a whole at a moment's notice.<sup>19</sup>

Indeed, such groups are strongly motivated to seek out problems that are sufficiently challenging that they can engage as many members as possible: "Members of a thinking community search, inscribe, connect, consult, explore... Not only does the cosmopedia make available to the collective intellect all of the pertinent knowledge available to it at a given moment, but it also serves as a site of collective discussion, negotiation, and development... Unanswered questions will create tension with cosmopedic space, indicating regions



where invention and innovation are required.”<sup>20</sup> What holds a knowledge community together is not the possession of knowledge—which can be relatively static—but the social process of acquiring knowledge—which is dynamic and participatory, continually testing and reaffirming the group’s social ties. The Wikipedians bond by working together to fill gaps in their collective knowledge.

THE WIKIPEDIA MOVEMENT IS ALLOWING PEOPLE WITH VERY DIFFERENT BACKGROUNDS TO WORK TOGETHER TO SHARE WHAT THEY KNOW WITH EACH OTHER.

Wikipedian Kevin Driscoll proposes a suggestive analogy for thinking about such collaboration: “The only thing that I can think of in my life that’s similar in an “off-the-internet” kind of way is sometimes when you go to the beach there will be a bunch of people making a sand castle. And you can just come over and start making another part of the sand castle and then join them together. And then somebody sees like “wow those guys are making a huge sand castle.” And then they get involved and then the thing gets so big, you might not even ask the other peoples’ names. You still built the thing together. And nobody owns that sand castle. You all built it together. You’re all proud of it. And you all get the benefit of each other’s work so you’re all really relying on each other. And Wikipedia is like that sand castle except no ocean is going to wash Wikipedia away.” Part of what young people can learn through contributing to, or even consuming, Wikipedia is what it is like to work together within a knowledge culture.

It might be helpful to trace some of the ways that this idea of a knowledge-generating culture contrasts with what Peter Walsh has called the Expert paradigm:<sup>21</sup>

1. The expert paradigm requires a bounded body of knowledge, which can be mastered by an individual. The types of questions that thrive in a collective intelligence are open-ended and profoundly interdisciplinary.
2. In the expert paradigm, there are some people who know things and others who don’t. A collective intelligence assumes that each person has something to contribute, even if they will only be called upon on an ad hoc basis.
3. The expert paradigm uses rules about how you access and process information, rules which are established through traditional disciplines. Within the collective intelligence model, each participant applies their own rules, works the data through their own processes, some of which are more convincing than others, but none of which are wrong at face value. Debates about rules are part of the process by which knowledge gets generated.
4. Experts are credentialized; they have gone through some kind of ritual which designates them as among those who have mastered a particular domain, most often through formal education. While participants in a collective intelligence often feel the need to demonstrate how they know what they know, this is not based on a hierarchical system and knowledge that comes from real life experience may be highly valued.

Learning how to weigh different claims about expertise should be part of Hobbs’ “informed skepticism.” We might, for example, ask young people to talk through the differences in the kinds of expertise displayed by a coach and a ballplayer, a librarian and a researcher, an actor and a director, a mechanic and a race car driver, an architect and a construction worker, or a biologist and a nurse. Some of these people gained their expertise from formal education, others through practical experience; they know different things because they play differ-

ent roles in a shared process; and having all of these people contribute to the production of knowledge is likely to result in richer and more valuable insights than weighing one's perspective above the others. At the moment, I am playing the part of an expert in writing this article. Perhaps some individual readers see themselves as having greater expertise than I do and in at least some cases, they may be right. But there's no question that there is more knowledge in the combined readership of this article than I can access at the time I am writing it. The Wikipedia movement is allowing people with very different backgrounds to work together to share what they know with each other.

Of course, Wikipedia is simply one of a broad range of online activities that involve the collaborative and coordinated production and circulation of knowledge. For example, alternative reality games—large-scale informational scavenger hunts—are being designed so that they occupy the interests of several hundred players working together: any given problem might require a mix of skills and knowledge drawn across different disciplines and domains.<sup>22</sup> Writers like Steven Johnson and Jason Mittell have shown that television narratives are becoming increasingly complex, involving many different characters and subplots, as they are being consumed in very active and collaborative ways by online fan communities.<sup>23</sup>

Games researcher T.L. Taylor has shown how the guild structure of a massively multiplayer game such as *World of Warcraft* may encourage people with very different skills to work together to meet challenges that are designed for this kind of coordinated activity; the community may develop its own modes and toolkits that help them to monitor and organize such large-scale activities.<sup>24</sup> Similar tools, institutions, and practices have emerged around Wikipedia as the community has sought to flag problems to be addressed and identify people with the skills and knowledge needed to solve them. The Wikipedians we interviewed stressed the broad range of skills needed for the project to succeed.

Participating in the Wikipedia community helps young people to think about their own roles as researchers and writers in new ways. On the one hand, they are encouraged to take an inventory of what they know and what they can contribute. The school expects every student to master the same content, while Wikipedia allows students to think about their own particular skills, knowledge, and experience. Wikipedia invites youth to imagine what it might mean to consider themselves as experts on some small corner of the universe. As they collect and communicate what they know, they are forced to think of themselves writing to a public. This is no longer about finding the right answer to get a grade on an assignment but producing credible information that others can count upon when they deploy it in some other real world context.

On the other hand, participants are encouraged to see themselves as members of a knowledge community and to trust their collaborators to fill in information they don't know and challenge their claims about the world. Composition theorist Kenneth A. Bruffee has emphasized the power of collaborative writing to change how young people think about the relationship between readers and writers: "Most of us are not in the habit of thinking about writing nonfoundationally as a collaborative process, a distanced or displaced conversation among peers in which we construct knowledge. We tend to think of writing foundationally as a private, solitary, 'expressive' act in which language is a conduit from solitary mind to solitary mind....When each solitary reader in the socially unrelated aggregate reads what we write, what happens, we suppose, is that another mind 'absorbs' the thoughts we express in writing. Our goal is to distinguish our own distinct, individual point of view from other people's points of view and demonstrate our individual authority....Once we understand writing in a nonfoundational way as a social, collaborative, constructive conversational act, however, what we think we are doing when we write changes dramatically. The individualist, ex-

pressive, contentious, foundational story we have been telling ourselves about writing seems motivated by socially dubious (perhaps even socially immature) self-aggrandizement.... We use a language that is neither a private means of expression nor a transparent, objective medium of exchange, but a community construct. It constitutes, defines, and maintains the knowledge community that fashions it. We write either to maintain our membership in communities we are already members of, to invite and help other people to join communities we are members of, or to make ourselves acceptable to communities we are not yet members of.”<sup>25</sup> Contributing to the Wikipedia might encourage students to adopt the very different kinds of rhetorical goals and mindset Brufee claims emerges through collaborative writing activities.

Again and again, the Wikipedians we interviewed for our documentary made reference to certain shared principles that shape the group’s activities and offer a framework for adjudicating disputes. Rather than arguing each point, the group agrees to work together to insure that all points of view get heard. This is what Wikipedians call adopting a neutral point of view, which is understood here as a goal or ideal shaping the writing process as much or more than it is seen as a property that can be achieved by any given entry.

This focus on neutrality takes on special importance when we consider the global context within which the Wikipedia operates. While Wikipedia projects are being created within a broad array of different languages, many of which are dominated by a single national context, all of these groups want to insure that their perspectives are fairly represented in the most widely consulted English language edition. So, we might consider the very different way that a topic like the Winter War, the Russian invasion of Finland during the Second World War, gets represented in Russian and Finnish history textbooks as opposed to the challenges of producing an account acceptable to Russians, Finns, Germans, Americans, and everyone else within the shared space of the English

language Wikipedia. Mastering the protocols concerning “neutrality,” then, might provide young people with good skills at navigating across the cultural differences that they will encounter elsewhere in the digital domain. Network culture is bringing people together who would never have interacted face to face given geographic distances but who now must work together to achieve shared goals.

## WHAT KNOWLEDGE COUNTS...

The decentralized nature of knowledge production in the Wikipedia movement results in some surprising gaps and excesses. Historian Roy Rosenzweig notes, “It devotes 3,500 words to the science fiction writer Isaac Asimov, more than it gives to President Woodrow Wilson (3,200); American National Biography Online provides a more proportionate (from a conventional historical perspective) coverage of 1,900 words for Asimov and 7,800 for Wilson.”<sup>26</sup> Rosenzweig models one of the core critical activities that students might perform in examining Wikipedia: systematically comparing how the same topic gets dealt with within traditional and emergent kinds of reference works. In doing so, we can flag the selection process which goes into the production of any kind of text. How do we decide how much space to devote to any given topic?

Remember that the relationship of space to prioritization operates differently within the economy of scarcity that dominated print culture and the plentitude that surrounds a digital resource. The amount of space given a topic in a printed encyclopedia reflected its relative importance because space cost money. Wikipedia space is free and unlimited so the amount of space devoted to a given topic might reflect a range of other factors, including how much the community knows or feels able to communicate about the subject, how many people know about the topic, and in what kinds of contexts this information gets used. There isn’t someone out there—an editor or publisher—

deciding how much space to grant a given topic, though the group may sometimes prune entries that they feel are over-inflated. Rather, someone who cares deeply about a subject takes the first crack towards writing an entry and others who share her interests may also contribute, thus often swelling its word count.

The Wikipedians discuss this issue in terms of what they call “systemic bias.” Our documentary on Wikipedia features the following exchange between Wikipedians Mark Pellegrini and Jim Giles:

**Jim Giles:** *Some groups of people really like Wikipedia, like scientists, computer programmers, mathematicians. Technically-minded people seem to like Wikipedia. So they write really good articles. So on those topics, Wikipedia is likely to be stronger than on say, poetry.*

**Mark Pellegrini:** *It's called a systemic bias is how we refer to it as. We, originally our draw was, yeah, people who are really technologically savvy, you know, white males in the Western world. And so the hope is that as we get larger, the systemic bias will kind of go away.*

The greater focus placed on a science fiction writer over an American president reflects this systemic bias: early participants in the Wikipedia project were more likely to reflect the biases and values of geek culture. The solution, the Wikipedians argue, is to become more inclusive, to draw together a more diverse range of participants, and thus to expand which topics get discussed and what kinds of information get included. Collective intelligence places new emphasis upon diversity: the more diverse the participants, the richer the final outcome.

Accordingly, the Wikipedians argue that the question isn't what knowledge matters but rather what knowledge matters to whom under what circumstances for what purposes. Indeed, the whole point is to produce a work which can serve many different purposes and thus which may offer many different structures of information. This is consistent

with what David Weinberger argues in his new book, *Everything is Miscellaneous*; one of the defining characteristics of a networked culture is that it enables information to be configured and reconfigured in many different ways: “It's not about who is right and who is wrong. It's how different points of view are negotiated, given context, and embodied with passion and interest....It's not whom you report to and who reports to you or how you filter someone else's experience. It's how messily you are connected and how thick with meaning are the links... A topic is not a domain with edges. It is how passion focuses itself.”<sup>27</sup> While networked culture will generate many different institutions and social structures which individually and collectively help us to sort through information, the final decision about which process works rests not with traditional gatekeepers but with the community of participants.

WIKIPEDIA SPACE IS FREE AND UNLIMITED SO THE AMOUNT OF SPACE DEVOTED TO A GIVEN TOPIC MIGHT REFLECT A RANGE OF OTHER FACTORS, INCLUDING [...] HOW MANY PEOPLE KNOW ABOUT THE TOPIC, AND IN WHAT KINDS OF CONTEXTS THIS INFORMATION GETS USED.

The Wikipedia Project's openness to knowledge not valued in academic settings, for example, has made it possible for young people to more actively contribute:

**Ndesanjo Macha:** *Most of the kids who come to our Boys and Girls Club are very very good consumers of information tools and knowledge. They know how to chat, how to email, how to do MySpace, Facebook, how to play video [and] computer games, very very good consumers. But they're not producers of knowledge and information. And if knowledge and information are going to be the key elements that are going to define this moment of history, I think it's very very important for kids in schools to start being producers of these things.*

**Andrea Forte:** *So one of the things that happens on Wikipedia that makes it different from other encyclopedias is [that] people start writing about popular culture. So this is an area where young people far far outstrip their older peers when it comes to being able to contribute new knowledge about the world.*

**Kevin Driscoll:** *Some of my students are super big fans of a T.V. show or a sports team. And I think that those two are things that people document really heavily. Because what happens is that there's a new--another football game every week. And there's another episode of the TV show. So there's something new to add to the Wikipedia entry.*

Similarly, people from different class, race, religious, ethnic, and gender backgrounds will choose to write about different topics, including many which are under-represented in standard reference works. This again places new emphasis upon the problems caused by the participation gap: by locking some segments of our society (let alone the world's population) out of full participation online, we deny the society at large access to the things they know and the ways they know them.

As Levy suggests, a knowledge culture sees such gaps as an incitement to activity. It is certainly valid to ask what information is not included in the Wikipedia and why. However, critics then should roll up their sleeves and take responsibility for making sure that topics that matter to them get full and adequate representation

At their most passionate, they see Wikipedia as part of a larger process of insuring a more democratic culture by taking seriously what each member has to contribute:

**Joe Abraham:** *The idea that a few "experts" tell us how we should live our lives, what battles we should fight in, is going to, I think, go by the wayside and we as a collective community, as a democracy, as a world of equals will decide together where we should go and what we should learn. "Raymond's law," that is destined to be one of the great comments of history, which is funny because it's a rather geeky expression: "Given enough*

*eyes, all bugs are shallow." That if enough people are looking at something, that you will find the bugs--the errors. And once you identify the error, you will almost always very quickly find the solution.*

**Mark Pellegrini:** *If you look at the "What the Wikipedia is Not," it says "Wikipedia is not experiment in democracy" and I know that because I wrote it! But it has the trappings of democracy, which is to say it's driven by the collective will of the people.*

**Joe Abraham:** *What makes a democracy so different is that each of us has our hand on the wheel of the ship of state.*

**Kevin Driscoll:** *I imagine that Wikipedia is the beginning of a much larger movement for us to be sharing our knowledge with one another in a real, world-wide way. So there are all of these parts of our culture and parts of our society that have not yet been experimented--on the way that the encyclopedia was experimented--on. And Wikipedia proves that it's possible to find a different way to build these things--a cooperative way--that people who don't ever meet each other can work together. But I believe that this idea will endure, because it's so powerful. And people care about it so much. And when you see that happening, that is something that can't be beat.*

If we understand the Wikipedia movement as fostering civic engagement, then it becomes all the more important that we insure the diversity of participation. We should take steps through classroom and after school activities to broaden who gets to participate in this process of knowledge production and evaluation.

## WRAPPING UP

I have tried to suggest throughout this essay that the Wikipedian movement might be one space where young people could acquire the kinds of social skills and cultural competencies necessary to meaningfully participate in the new media landscape. The Wikipedia movement is a place where young people and adults work together to achieve shared goals.

The group itself has worked to make its standards, practices and protocols as transparent as possible, giving us the tools we need to evaluate the information the group produces. Wikipedia assumes an active reader who asks questions about the factual claims presented, the evidence supporting the claims and the sources that were consulted.

In particular, I have identified several key skills which are potentially enhanced through active engagement with Wikipedia:

**Collective Intelligence**—the ability to pool knowledge and compare notes with others towards a common goal.

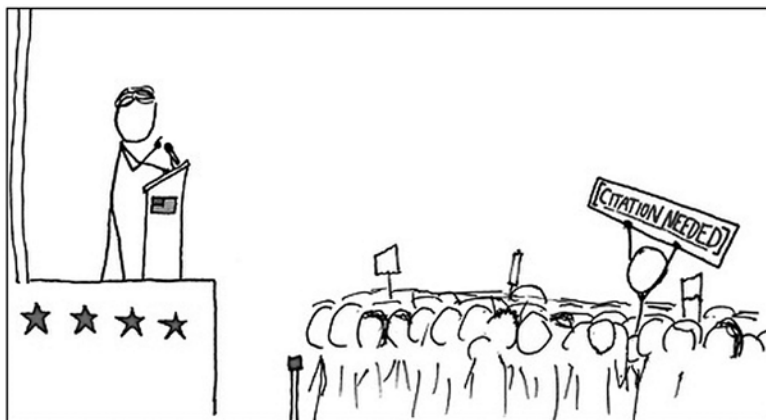
**Judgment**—the ability to evaluate the reliability and credibility of different information source.

**Networking**—the ability to search for, synthesize and disseminate information.

**Negotiation**—the ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative sets of norms.

But, we need to help our students to develop a larger context for identifying the strengths and limitations of its particular model for knowledge production. As we do so, we need to return to the core questions which have been described as central to the Media Literacy movement (see for example Project Look Sharp), and rethink them in relation to this changing context of media production, circulation, and consumption.

**1. Who made - and who sponsored - this message, and for what purpose?** In this case, we need to understand this question from the perspective not of someone who is consuming media produced elsewhere but of someone who is invited to actively participate in the production and circulation of media content.



Courtesy [xxcd.com/c285.html](http://xxcd.com/c285.html) © Randall Munroe Creative Commons 2.5 license

- 2. Who is the target audience, and how is the message specifically tailored to it?** In this case, we need to focus on the sets of norms and shared ideologies that are shaping the Wikipedia movement.
- 3. What are the different techniques used to inform, persuade, entertain, and attract attention?** In this case, we need to focus on the rhetorical tools which establish credibility or motivate participation.
- 4. What messages are communicated (and/or implied) about certain people, places, events, behaviors, lifestyles, etc.?** In this case, we need to consider the different kinds of expertise that different participants in the Wikipedia movement bring to the project, looking at the ways that these diverse perspectives get negotiated through the production of any given article.
- 5. How current, accurate, and credible is the information in this message?** In this case, we need to focus attention on the devices which make the research process more transparent and the ways we need to deploy them to test the reliability of the information.
- 6. What is left out of this message that might be important to know?** In this case, we need to reflect on the systemic biases of the project and how they emerge from the participation

gap and from other obstacles which limit individuals' ability to access technologies and participate within networked culture.<sup>28</sup>

Clearly, the media literacy community has lots of work to do if we are going to develop as rich and nuanced an understanding of Wikipedia as we have created together over the past several decades around older media forms such as print advertising or television news. But I hope that this article—and the documentaries and curricular guides being produced by Project nml—will represent a step towards integrating Wikipedia into the range of topics that media literacy education seeks to address. \*

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# ABOUT PROJECT NML

BY HENRY JENKINS  
& ALICE J. ROBISON

MIT's New Media Literacies Project provides educators, parents, librarians, youth workers, and media makers with curricular materials they can use to help respond to the challenges of preparing young people for a more participatory culture. These materials incorporate and expand upon the perspective on production and consumption that has long shaped media literacy education but expand it to focus on the new forms of participation, social networking, and collaborative research within the 21st-century media landscape. Our white paper (available for download from [projectnml.org](http://projectnml.org)) draws on a range of contemporary research on literacy, learning, new media, play, civic engagement, and grassroots media production. This NML framework reflects a decade plus of profound and prolonged media transformation, including changes in the digital infrastructure, audience behavior, industry structure and logic, governmental policy, educational practice, and theoretical perspectives.

So far, we are translating the framework of the white paper into a series of short digital documentaries which constitute the beginnings of what we are calling the Exemplar Library ([projectnml.org/exemplars](http://projectnml.org/exemplars)). These documentaries emerged from our recognition that a growing number of media literacy educators are incorporating media production activities into their pedagogy, yet they often do not have resources for contextualizing the new kinds of media production that have emerged in response to these shifts in the media landscape. They often lack

a vocabulary to talk with their students about what is interesting about these new media practices. We wanted to produce a series of documentaries which focused on the choices — ethical, aesthetic, and economic — media makers make as they produce and circulate their work. We wanted to help people understand the contexts within which they worked and the standards by which they judged their own work. The documentaries are broken down into four- to five-minute chunks which are ideally suited for sparking discussions or prompting media production activities.

These exemplars are also designed to implicitly and often explicitly reflect the underlying framework of social skills and cultural competencies we believe constitute the new media literacies. Topics developed so far include the remixing and mashup practices of DJ culture, the public artworks produced by a graffiti collaborative, the steps that go into designing the page of a comic book, videoblogging and citizen media, documentary production in video and radio, special effects, and "big" games. Future topics currently being planned and development include animation, cos-play in the anime fan community, the Wikipedia movement, social networks, and computer game design. Project NML is currently seeking collaborators around the world who will develop short films on their own topics to add to the collection; over time we will make the library fully open source so the students and teachers can develop class projects documenting media production in their own local communities and share them with a larger public.

The short documentaries are supported with curricular materials, including vocabulary terms and definitions and lesson plans which build on the films and often lead into class projects (both high- and low-tech) that encourage young people to put these ideas into practice. Our team have developed instructions for how teachers can dissect the rule system behind a game like *Mafia*, how they can get students to think about the relationship between Thomas Paine's *Common Sense* and contemporary blogs, or how they might learn the difference between remixes and mash-ups by cutting out and pasting together passages from classic poems. Our goal here is not so much to teach students technical skills as to give them exposure to the social skills and cultural competencies needed to deploy those technical processes meaningfully in a participatory culture.

The group's long term goals include the development of larger scale teaching guides which, for example, explore how a better understanding of remixing might transform the teaching of Herman Melville and *Moby Dick* and the development of a casebook designed to encourage young people to reflect on their own ethical choices as media makers and participants in online communities, being developed in collaboration with Howard Gardner and Harvard's Good Play project. All of these efforts are being supported through a generous grant from the John D. and Katherine T. MacArthur Foundation. For more information, see [WWW.PROJECTNML.ORG](http://WWW.PROJECTNML.ORG).

# SR. ROSE PACATTE & CHRIS WORSNOP



## Receive the 2007 Jessie McCanse Award

*Celebrating the Twentieth Anniversary of the award that honors NTC's co-founder Jessie McCanse, two eminent educators share the recognition, presented this year to Canadian educator Chris Worsnop, and Los Angeles – based Sr. Rose Pacatte.*

*In announcing the awards, NTC President Karen Ambrosch said, "This year's recipients exemplify the high principles of excellence, dedication and innovation that the Jessie McCanse*

*Award for Individual Contribution to Media Literacy represents. Both Rose and Chris consistently contribute deeply rich and thoughtful leadership to the field of media education."*

*The Jessie McCanse Award was established in 1987 on the occasion of Mrs. McCanse's 90th birthday, to honor her lifelong dedication and leadership role in the field of education, her sixty years as leader of our organization, with its positive philosophy and champion*

*of the highest standards of excellence, fairness, ethics and innovation. In recognizing the example set by Jessie McCanse, the award is given for individual contribution to the field of media literacy education over a long and sustained period of time of at least ten years. It honors individuals whose contribution exemplifies her high principles and dedication.*

### CHRIS WORSNOP

Pioneering Canadian media educator, Chris has a long and distinguished career. He is a key leader among the innovators who forged the impressive Canadian media education movement, and whose clear principles and implementation initiatives are today a role model among educators worldwide.

Chris has balanced an amazing life as teacher, mentor, author, critic; producer, actor, and poet; and much more. His has been a rich and diverse career that spans Education, the Media, the Arts. He is known across the world for his sound pedagogical approach to learning, to Best Practices, and to a passionate pursuit of authentic student evaluation and assessment. His books, *Screening Images: Ideas for Media Education* (1994 and 1999) and *Assessing Media Work* (1996) are classics in their field.

In more recent years, he has turned his attention to the International Baccalaureate Organization where he continues to play a key role.

And finally, Chris is known and cherished by those privileged to have met him, for his wonderful sense of humor, keen wit (perhaps a touch of his British origins showing up?) and a way with words that has prompted the editors of this *Journal of*

CONTINUED ON FOLLOWING PAGES –  
SEE LEFT COLUMNS FOR CHRIS

### SR. ROSE PACATTE, FSP

A Daughter of St. Paul, Sr. Rose is the founding Director of the Pauline Center for Media Studies in Boston, and Director of its Los Angeles Western branch, where she has developed a first-of-its-kind educational facility that offers media literacy classes including most recently an accredited Master Teaching Certificate. She is a 1995 graduate of the Masters Degree Programme at the University of London, the phenomenal Research Center for Children, Media and Education directed by Professor David Buckingham (Jessie McCanse Award, 2005). Her impressive 11-page CV attests to the wealth and diversity of Rose's contribution: from her books, film critiques and weekly columns to curriculum guides and workshops, and to her other media interests, including a passion for film, which has earned her a place in the Hollywood scene where she can be found as both critic and participant, author and film maker.

Last but not least, Sr. Rose may wear the serious habit of a Daughter of St. Paul but the smile, and the twinkle in her eye hint at the lighter side of Rose, her delightful sense of humor and willingness to play...as seen in her appearances on Network TV's "Last Comic Standing" and recently as one of "The Hundred" of "The Mob". Is it a coincidence that both

CONTINUED ON FOLLOWING PAGES –  
SEE RIGHT COLUMNS FOR SR. ROSE

## CHRIS continued

*Media Literacy* to crown him with the title of “Poet Laureate” of our publication.

The presentation of the award to Chris took place on November 6, in Toronto. It was a fitting setting, in the midst of teachers and colleagues, during a special event in which he was a speaker, on “Film and Popular Culture” that was sponsored by the Association for Media Literacy as part of the Canadian “National Media Education Week.” It was equally fitting and meaningful that the award was given to Chris by Mary Moen, NTC’s long-time Board member, Madison teacher, Jessie McCause award recipient, and herself a pioneer in media literacy in Wisconsin.

In presenting the award to Chris, Mary Moen stated: “with your wisdom and intellect you have opened eyes to the principles of pedagogy in a changing media environment and you have consistently led the way as an educator, to the new frontiers. Please accept our salute to your gifts to the world of Media Education.”

## Chris Reminisces...

I started in media education in about 1966, when I organized a film society in the Ottawa, Ontario high school where I was working, and started using some National Film Board of



A FEW WORDS FROM CHRIS AS HE RECEIVES THE AWARD FROM MARY MOEN OF THE NTC. [Credit: Mrs. Worsnop]

## SR. ROSE continued

of our awardees this year complement their deep and serious dedication to media education with the lighter touch?

The Award ceremony for Sr. Rose took place in Hollywood among her cherished California community of film makers and Catholic communicators on the occasion of the prestigious Gabriel Awards. Ross McCause, son of Jessie McCause and himself a distinguished producer-director, presented the award as spokesman for his mother’s legacy in a moving personal tribute. Representing the National Telemedia Council were NTC President Karen Ambrosch and Executive Director Marieli Rowe, who said, in her introduction: “Sr. Rose is a most amazing valuable human being, so grounded in a deeply scholarly understanding of media education and a sound pedagogy, all comfortably aligned in her faith. She is a most worthy honoree for the award named in honor of Jessie McCause.

## Sr. Rose Shares her Vision...

The one compelling force that has driven my life since I was about eleven years old is the quest for meaning, that what I would do with my life would make sense, and that it would matter. The quest led me, while still in high school, into religious life in the convent as a Daughter of St. Paul. Here I discovered

AFTER THE AWARD CEREMONY; SR. ROSE PACATTE WITH MARIELI ROWE, ROSS McCAUSE, & KAREN AMBROSH OF THE NTC. [Credit: Lisa Dahm, Catholic Academy]



## CHRIS continued

Canada (NFB) films in my classroom. In 1967 I moved to a new school and expanded my use of film and other media, and in 1968 taught one of Ontario's first grade 13 courses in film. In 1968, I spent six weeks at a media education film institute at Montreal's NFB HQ.

All of this is a result of my (mis)spending five to seven undergraduate nights a week at the cinema. And that was a result of my spending a fair amount of my high school evenings helping my father, who was a projectionist. (Shades of Cinema Paradiso)

In the 70s I took an undergraduate diploma course in "Social Communications" at Ottawa U. and became more and more involved in media education. Then it was called "Screen Education", and I later found ways of incorporating it into my M.Ed. studies in Kingston, Ontario. Throughout the 70s, 80-s and well into the 90s I was heavily involved in the Ontario Film Association, writing



CHRIS WORSNOP

hundreds of reviews of short Canadian, non-theatrical films, and producing some of the first study guides to take a media education slant on film in the classroom. I was then a curriculum coordinator with responsibility for English, Drama and Media in elementary and secondary schools in Ontario's largest school board.

In 1995, I retired from full time work and devoted myself to media education. I wrote the first Edition of *Screening Images: Ideas for Media Education* in 1994, (second edition, 1999) then *Assessing Media Work* in 1996. I did a lot of workshop and conference work between 1995 and 2000, and then slowly began to cut down on my activities. In 2006, I retired again and moved out of the Toronto area, only to find myself involved in running afternoon film programs in the local library.

Starting in 1999, I worked for the International Baccalaureate Organization (IBO) first as a committee member, than as chair of the committee and later as the chief examiner for a film course

## SR. ROSE continued

that the mission of the Daughters of St. Paul is to use the communications media—what are now the press, film, radio, television, DVD's, the Internet—to spread God's Word to all. In 1984 my community modified our rule of life by adding a significant article to our Constitutions; Number 25 reads in part:

*The education and formation of the audience to critically discern the messages communicated through traditional mass media and emerging forms of social communication are important media formation and education projects to the Daughters of St. Paul.*

What this meant became startling clear to me a few years later in 1990 when I heard Elizabeth Thoman, founder of the Center for Media Literacy, speak at a Catholic communicators conference. All of a sudden spiritual, educational, practical, and experiential aspects of my life's work began to integrate. This encounter led me to the media literacy conference in Guelph, Ontario and on to the University of London's Institute of Education for a Master of Arts in Education in Media Studies degree in 1995. The rest, as they say, is on-going history.

As my co-honoree, mentor and media literacy education colleague, Chris Worsnop, wrote, "Media education is a quest for meaning. Much of the value of a quest lies in the search itself as well as in the achievement of the goal.

My vision is that this quest for meaning that takes place on the story-telling media landscape be increasingly shared through media literacy education in our living rooms, class rooms, and pews. To be part of the quest and to journey with others on this continual search for meaning through communication is energizing and fulfilling. Even as meanings are contested, media literacy education creates a peaceful, safe space for authentic dialogue between all people of all cultures, creeds, and generations.

## A Tribute to Sr. Rose

From colleague and friend **Sr. Gretchen Hailer, RHSM**

Rose and I met in 1996 when I was facilitating a visioning process for the National Association of Catechetical Media Professionals. She had just completed an MA in Media Studies from the Institute of Education of the University of London. She was the first person I had known to have actually done media studies rather than communication arts. It was a great pleasure to listen to someone who had pursued that avenue to media literacy.



## CHRIS continued

in the diploma program. My term expired in 2006, and I am now the representative for all the diploma arts programs on the IBO Diploma Review Committee. This position expires in two years from now, when I am planning a third retirement.

I am extremely proud to be named as a recipient of the Jessie McCause award, and to be counted among those former recipients whom I have long respected as landmarks in the media education world. I am exceedingly proud of the fact that nomination for this award is by the former recipients, as I consider this to be the ultimate in peer review. 17 SEPTEMBER, 2007

### Who is Chris, really?

An interview with friend and colleague **Barry Duncan**

Chris Worsnop is a mischievous character and at a dinner party is known to stage quite a performance. I am a witness. There is no stopping him once he gets going. From dun-derhead superintendents to the crew that proposed the ill conceived Youth News Network, it's all fodder for his goon show—Monty-Python-style-grinder and ultimately, part of his amazing intellectual and pedagogical talent.

His role as a teacher and a coordinator of English, especially in the area of assessment, would be sufficient to earn him kudos. But his career since officially retiring in 1995 is impressive. Largely dedicated to media education, his work would include innumerable presentations at conferences around the world, the publication of several books including *Screening Images and Assessing Media Work* and his role on the committee for the prestigious film studies IB International Baccalaureate.

Chris is a strong team player. (Having been on several committees with him, I know.) While on the AML executive, he took on the Youth News Network (YNN), eloquently refuting the questionable rationale of this daily 12 minute telecast for schools that included two minutes of commercials.

While he is super media literate—and especially a connoisseur of good films—he is equally in love with the theatre, performing or taking care of the sound board. I trust he never gets his signals crossed.\*

## SR. ROSE continued

The two of us met again in Colorado Springs the following year at the National Media Education Conference. I was thrilled to see her again. We had dinner together and at that time forged both a friendship and a professional partnership that includes co-authoring print resources and co-presenting workshops in media education for Catholic school teachers and parish catechists and youth ministers. I really think that Rose is the brain of the partnership!

Our first book: *Media Mindfulness—Educating Teens about Faith and Media* came out last spring, published by St. Mary's Press. Our current adventure is writing another resource on media literacy, this time for grades Kindergarten through Eighth Grade. *Our Media World* will be published soon by Pauline Books and Media.

Our workshop gigs for teachers always have the moniker: Sr. Catechist and Sr. Media go to.... So far, we have done presentations on the movies, the mall, the museum, the market. All done using our strategy of media mindfulness, which directs the consumer of all types of media to be more critically conscious of the ways that media work.

Last year, Rose graduated the first class of Master Teachers in Media Literacy in the Pauline Center for Media Studies which she directs. The graduates are certified by three Catholic dioceses: Los Angeles, Orange and San Diego.

She is also one of the founders of the annual National Film retreat—an opportunity for religious folks to spend several days together reflecting on films on single themes from the "God-perspective."

Sr. Rose Pacatte, FSP, is certainly well deserving of the prestigious Jessie McCause Award given by the National Telemedia Council to individuals who have made exceptional contributions to the field of media literacy. I am indeed grateful to have been asked to pay tribute to a good friend and talented colleague. \*



SR. ROSE PACATTE, FSP

# Gaming Literacy

## GAME DESIGN AS A MODEL FOR LITERACY IN THE 21<sup>ST</sup> CENTURY

BY ERIC ZIMMERMAN

### INTRODUCTION: LITERACY AND GAMES FROM THE INSIDE-OUT

Gaming Literacy is an approach to literacy based on game design. My argument is that there is an emerging set of skills and competencies, a set of new ideas and practices that are going to be increasingly a part of what it means to be literate in the coming century. This essay's proposal is that game design is a paradigm for understanding what these literacy needs are and how they might be addressed. I look at three game design concepts—systems, play, and design—as key components of this new literacy.

ask questions like: Is a given instance of media racist or sexist? Who is creating it and with what agenda? What kinds of intended and unintended messages and meanings does media contain?

Literacy and even media literacy are necessary but not sufficient for one to be fully literate in our world today. There are emerging needs for new kinds of literacy that are simply not being addressed, needs that arise in part from a growing use of computer and communication networks (more about that below). Gaming literacy is one approach to addressing these new sorts of literacies that will become increasingly crucial for work, play, education, and citizenship in the coming century.

Gaming literacy reverses conventional ideas about what games are and how they function. A classical way of understanding games is the "magic circle," a concept that originates with the Dutch historian and philosopher Johann Huizinga. The magic circle represents the idea that games take place within limits of time and space, that they are self-contained systems of meaning. A Chess king, for example, is just a little figurine on a coffee table—but when a game of Chess starts, it suddenly acquires all kinds of very specific strategic, psychological, and even narrative meanings. To consider another example, when a Soccer game or Street Fighter II match be-

...GAMING LITERACY IS NOT ABOUT JUST ANY  
KIND OF REAL-WORLD IMPACT—IT IS A SPECIFIC  
FORM OF LITERACY.

Traditional ideas about literacy have centered on reading and writing—the ability to understand, exchange, and create meaning through text, speech, and other forms of language. A younger cousin to literacy studies, media literacy, extended this thinking to diverse forms of media—from images and music to film, television, and advertising. The emphasis in media literacy as it evolved during the 1980s was an ideological critique of the hidden codes embedded in media. Media studies scholars

gins, your friend suddenly becomes your opponent and bitter rival—at least for the duration of the game. While many social and cultural meanings certainly do move into and out of any game (your game rivalry might ultimately change your friendship outside the game), the magic circle emphasizes meanings that are intrinsic and interior to games.

Gaming literacy turns this inward-looking focus inside-out. Rather than addressing the meanings that only arise inside the magic circle of a game, it asks how games relate to the world outside the magic circle—how game playing and game design can be seen as models for learning and action in the real world. It asks, in other words, not *What does gaming look like?* but instead *What does the world look like from the point of view of gaming?*

But it's important to be very clear here: gaming literacy is not about just any kind of real-world impact—it is a specific form of literacy. So for the sake of specificity, here are some things that gaming literacy is *not*:

- Gaming literacy is not about 'serious games'—games designed to teach you subject matter, such as eighth-grade algebra.
- Gaming literacy is not about 'persuasive games' that are designed with a message or social agenda to impart to the player.
- Gaming literacy is also not about training professional game designers, or even about the idea that anyone can be a game designer.

Gaming literacy is *literacy*—it is the ability to understand and create specific kinds of meanings. As I describe it here, gaming literacy is based on three concepts: *systems*, *play*, and *design*. All three are closely tied to game design, and each represents kinds of literacies that are not being addressed today through traditional education. Each concept also points to a new paradigm for what it will mean to become liter-

ate in the coming century. Together they stand for a new set of cognitive, creative, and social skills—a cluster of practices that I call *gaming literacy*.

I like the term 'gaming literacy' not only because it references the way that games and game design are closely tied to the emerging literacies I identify, but also because of the mischievous double-meaning of 'gaming,' which can signify exploiting or taking clever advantage of something. Gaming a system means finding hidden shortcuts and cheats, and bending and modifying rules in order to move through the system more efficiently—perhaps to misbehave, but perhaps to change that system for the better. We can game the stock market, a university course registration process, or even just a flirtatious conversation. Gaming literacy, in other words, 'games' literacy, bending and breaking rules, playing with our notions of what literacy has been and can be.

## SYSTEMS

To paraphrase contemporary communications theory, a system is a set of parts that interrelates to form a whole. Almost anything can be considered a system, from biological and physical systems to social and cultural systems. Having a systems point of view, being systems literate, means understanding the world as dynamic sets of parts with complex, constantly changing interrelationships seeing

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ERIC ZIMMERMAN has been working in the game industry for thirteen years. He is the co-founder and Chief Design Officer of Gamelab ([WWW.GAMELAB.COM](http://WWW.GAMELAB.COM)), an independent game development company based in New York City. Gamelab creates and self-publishes innovative singleplayer and multiplayer games that are distributed online, on mobile phones, and through retail, including the hit downloadable games *Diner Dash* and *Miss Management*. Pre-Gamelab titles include *SISSYFIGHT 2000* and the PC title *Gearheads*. Eric has taught courses at MIT, New York University, and Parsons School of Design. He has lectured and published extensively about game design and is the co-author with Katie Salen of *Rules of Play: Game Design Fundamentals* (MIT Press, 2004), and *The Game Design Reader: A Rules of Play Anthology* (MIT Press, 2006), as well as the co-editor of *RE:PLAY* (Peter Lang Press, 2004).





structures that underlie our world, and comprehending how these structures function.

As a key component of gaming literacy, systems can be considered a paradigm for literacy in the coming century. Increasingly, complex information systems are part of how we socialize and date, conduct business and finance, learn and research, and conduct our working lives. Our world is increasingly defined by systems. Being able to successfully understand and navigate, modify and design systems will be more and more linked to how we learn, work, play, and live as engaged world citizens.

JUST AS GAMES ARE MORE THAN THEIR  
STRUCTURES OF RULES, GAMING LITERACY  
IS MORE THAN THE CONCEPT OF SYSTEMS.  
IT IS ALSO PLAY.

Systems-based thinking is about process, not answers. It stresses the importance of dynamic relationships, not fixed facts. Getting to know a system requires understanding on several levels, from the fixed foundational structures of the system to its emergent, unpredictable patterns of behavior. Systems thinking thereby leads to kinds of improvisational critical problem-solving that will be key skills for creative learning and work in the future. In part, the rise of systems as an integral aspect of our lives is related to the increasing prominence of digital technology and networks. But systems literacy is not intrinsically related to computers. The key to systems literacy is about a shift in attitude, not about learning technological skills.

Systems literacy, as an approach to learning, is not wholly new. Theorists like Lev Vygotsky, and approaches like constructivism and Montessori edu-

cation have set some precedents. However, it goes without saying that a systems approach to literacy is the exact opposite of what is currently going on in American public schools, under the standardized testing regime of No Child Left Behind. Meanwhile, contemporary thinkers from Stephen Johnson to Malcolm Gladwell are increasingly proposing systems-based thinking as the best way to understand a range of complex subjects, from media and society to history and culture.

If systems are a paradigm for an emerging form of literacy, what is the connection to games? Games are intrinsically, essentially systemic. Every game has a mathematical substratum, a set of rules that lies under its surface. Other kinds of media, art, and entertainment are not so intrinsically structured. Scholars debate, for example, the essential formal core of a film—is it the script? The pattern of the editing over time? The composition of light and shadow in a frame? There is not one correct answer. But with games, there is the clarity of a formal system—the rules of the game. This formal system is the basis of the structures that constitute a game's systems. More than other kinds of culture and media which have been the focus of literacy in the past, then, games are uniquely well-suited to teach systems literacy.

To play, understand, and—especially—design games, one ends up having to understand them as systems. Any game is a kind of miniature artificial system, bounded and defined by the game rules that create the game's 'magic circle.' Playing a game well to see which strategies are more effective, analyzing the game's rules to see how they ramify into a player's experience, and designing a game by playtesting, modifying the rules, and playtesting again, are all examples of how games naturally and powerfully lend themselves to systems literacy.

## PLAY

Games are systems in part because they are at some level mathematical systems of rules. But if games were just math, we would never have the athletic balletics of Tennis, the bluffing warfare of Poker, or the deep collaboration of World of Warcraft. Play is the human effect of rules set into motion, and play in its many forms transcends the systems from which it arises. Just as games are more than their structures of rules, gaming literacy is more than the concept of systems. It is also play.

There is a curious relationship between rules and play. In the classical sense of a game as a magic circle, rules are fixed, rigid, and closed. They are logical, rational, and scientific. Rules really don't seem like much fun at all. But when rules are taken on and adopted by players, when they enter the magic circle and agree to follow the rules, play happens. Play in many ways is the opposite of rules: as much as rules are closed and fixed, play is improvisational and uncertain. Yet in a game, these two opposites find a common home—game play paradoxically occurring only because of game rules.

In *Rules of Play*, Katie Salen and I define play as *free movement within a more rigid structure*. Imagine play as the 'free play' of a gear or steering wheel—the loose movement in an otherwise rigid structure of interlocking parts. The free play of a steering wheel is the distance it can move without engaging with the drive shaft, axle, and wheels—the more rigid utilitarian structures of the car. This free play only exists because of the more inflexible, functional structures of the automobile. Yet it also exists *despite* those structures, almost in spite of them. The play of a joke, for example, is funny because jokes play with structures of language, creating subtle ironies, or double-meanings, or vulgar inappropriateness. The free play humor of a joke exists in opposition to

the more rigid structures of serious, ordinary language—yet is utterly dependent on these structures for its play.

Yet play is far more than just play *within* a structure. Play can *play with* structures. Players don't just play games, they mod them, engage in metaplay between games, and develop cultures around games. Games are not just about following rules, but also about breaking them, whether it is players creating homebrew rules for Monopoly, hacking into their favorite deathmatch title, or breaking social norms in classics like Spin the Bottle that celebrate and create taboo behavior.

Although play exists outside of games, games do provide one of the very best platforms for understanding play—from free play within a structure to the transformative play that reconfigures that structure. Any instance of a game is an engine designed to produce play, a miniature laboratory for studying play *qua play*.

WHEN WE MOVE FROM SYSTEMS TO PLAY, WE SHIFT FOCUS FROM THE GAME TO THE PLAYERS, FROM STRUCTURES OF RULES TO STRUCTURES OF HUMAN INTERACTION.

So why is play an important paradigm for literacy in the coming century? Systems are important, but if we limit literacy to structural, systemic literacy, then we are missing part of the equation. When we move from systems to play, we shift focus from the game to the players, from structures of rules to structures of human interaction. Games as play are social ecosystems and personal experience—and these dimensions are key aspects of a well-rounded literacy.

As our lives become more networked, people are more and more engaging with structures, but they are not just inhabiting them. They are playing with them. A social network like Wikipedia is not just a fixed construct like a circuit diagram. It is a fuzzy system, a dynamic system, a social system, a cultural system. Systems only become meaningful as they are inhabited, explored, and manipulated by people. In the coming century, what will be important is not just systems, but *human* systems.

*productivity are the results of the designs (the structures) of complex systems of people, environments, technology, beliefs, and texts.*

—from *A Pedagogy of Multiliteracies: Designing Social Futures*, The New London Group

## EXISTING MODELS OF LITERACY SIMPLY DO NOT FULLY ADDRESS REALITY IN THE WORLD TODAY.

A literacy based on play is a literacy of innovation and invention. Just as systems literacy is about engendering a systems-based attitude, being literate in play means *being playful*—having a *ludic attitude* that sees the world's structures as opportunities for playful engagement. What does it mean to play with institutional language, with social spaces, or with processes of learning? When these rules are bent, broken, and transformed, what new structures will arise?

If gaming literacy were simply about systems and play, it would be a literacy based on games, not game design. But design, the third component of gaming literacy, is absolutely key, and in many ways brings the traditional idea of literacy as understanding and creating meaning back into the mix. There are many definitions of design, but in *Rules of Play* Katie Salen and I describe design as *the process by which a designer creates a context, to be encountered by a participant, from which meaning emerges.*

Play emerges from more rigid systems, but it does not take those systems for granted. It plays with them, modifying, transgressing, and reinventing. We must learn to approach problem-solving with a spirit of playfulness, to not resist but in fact embrace transformation and change. As a paradigm for innovation in the coming century, play will increasingly inform how we learn, work, and create culture.

Design as the creation of meaning invokes the magic circle: designers create contexts that in turn create signification. Although design comes in many forms, from architecture to industrial design, games happen to be incredibly well-suited for studying how meaning is made. Outside the game of Rock Paper Scissors, a fist can mean many things. But inside the game, that gesture is assigned a highly specific significance, a defined meaning within the lexicon of the game's language. The creation of meaning through game design is wonderfully complex. A game creates its own meanings (blue means enemy; yellow means power-up), but also traffics with meanings from the outside (horror film music in a shooter means danger is coming; Poker means a fun evening with friends).

## DESIGN

*The notion of design connects powerfully to the sort of creative intelligence the best practitioners need in order to be able, continually, to redesign their activities in the very act of practice. It connects as well to the idea that learning and*

For a game designer, the creation of meaning is a second-order problem. The game designer creates structures of rules directly, but only indirectly creates the experience of play when the rules are enacted by players. As a game unfolds through play, metaplay, and transformative play, unexpected things happen, patterns that are impossible to completely predict. In this way, design is not about the creation of a fixed

object. It is about creating a set of possibilities. The audience is always at least one step removed from the designer. Games embody this aspect of design in a very direct and essential way; even the most straightforward game of Chess or The Sims is about players exploring possibilities they are given by a designed object. In a game, design mediates between structure and play; a game system is designed just so play will occur.

Over and above game design's affinity for the process of making meaning, it is also radically interdisciplinary. Making a game includes creating a formal system of rules, while also designing a human play experience for a particular cultural and social context. Game design involves math and logic, aesthetics and storytelling, writing and communication, visual and audio design, human psychology and behavior, and understanding culture through art, entertainment, and popular media. For videogame design, computer and technological literacy become part of the equation as well.

As an exploration of process, as the rigorous creation of meaning, and as a uniquely interdisciplinary endeavor, game design represents multimodal forms of learning that educators and literacy theorists have been talking about for years, perhaps most significantly in the publications of the New London Group (I've quoted them at the start of this section above). Game design, as the investigation of the possibility of meaning, truly gets at the heart of gaming literacy, and ties together systems, play, and design into a unified and integrated process.

## CONCLUSION: A PLAYFUL WORLD

As we move into the early years of the 21<sup>st</sup> Century, the world is becoming increasingly transformed by communications, transportation, and information technology that is shrinking our globe, making it a place of cultural exchanges both constructive and

destructive. Existing models of literacy simply do not fully address reality in the world today.

Gaming literacy is certainly not the only way to understand the emerging literacy needs I have identified. But games and game design are one promising approach, making use of a cultural form that is wildly popular and wildly varied, both incredibly ancient and strikingly contemporary. And intrinsically playful as well.

So how does one take action to promote gaming literacy? At Gamelab, the independent game development company I founded in 2000 with Peter Lee, we have begun a number of gaming literacy projects. We are building Gamestar Mechanic, funded by the MacArthur Foundation and created in collaboration with the GAPPs group at the University of Wisconsin-Madison—a computer program that will let youth learn about game design by letting them create and modify simple games. We have just announced creation of the Gamelab Institute of Play. With Katie Salen as the Executive Director, the Institute will promote gaming literacy through educational programs and advocacy.

...IN THE COMING CENTURY, THE WAY WE LIVE AND LEARN, WORK AND RELAX, COMMUNICATE AND CREATE, IS GOING TO MORE AND MORE RESEMBLE HOW WE PLAY GAMES.

What does gaming literacy mean for game players and game makers? The good news is that games, so often maligned, have much to offer our complex world. And not just so-called "serious games" with explicit educational goals, but *any* game. Gaming literacy can help us feel good about what we do by playing games, making games, studying games, modding games, and taking part in gaming

communities. As literacy scholar James Gee likes to say, “video games are good for your soul.”

Gaming literacy turns the tables on the usual way we regard games. Rather than focusing on what happens inside the artificial world of a game, gaming literacy asks how playing, understanding, and designing games embodies a crucial way of looking at and being in the world. That way of being embraces the rigor of systems, the creativity of play, and the game design instinct to continually redesign and reinvent meaning.

It’s not that games will necessarily make the world a better place. But in the coming century, the way we live and learn, work and relax, communicate and create, is going to more and more resemble how we play games. And while we’re not all going to be game designers, game design and gaming literacy offers a valuable model for what it will mean to become literate, educated, and successful in this playful world.

## CODA: NO ESSAY IS AN ISLAND

The ideas in this essay are not just my own, but are part of a growing conversation that can be heard across universities, commercial game companies, grade school classrooms, nonprofit foundations, and in other places where game players, game makers, scholars, and educators intersect.

Although I have been a game designer and game design theorist for more than a decade, I began to rigorously connect game design and literacy through my interaction with the GAPPS group (now called GLS), a collection of scholars at the University of Wisconsin–Madison that includes Jim Gee, Rich Halverson, Betty Hayes, David Shaffer, Kurt Squire, and Constance Steinkuehler. I was privileged to be invited to a series of conversations with this stimulating crew about games and literacy sponsored by the Spencer Foundation. In 2006,

during the third of these three meetings, the term ‘gaming literacy’ emerged from our conversations as a concept that could reference growing connections between games, learning, literacy, and design.

I am greatly indebted to game designer, scholar, and educator Katie Salen for our ongoing collaborations, including the textbook *Rules of Play: Game Design Fundamentals* (Katie also attended that third Spencer meeting). My ideas on game design and learning have also been shaped by my work with the amazing staff at Gamelab, especially my co-founder Peter Lee, and former Gamelab game designers Frank Lantz and Nick Fortugno. Connie Yowell at the MacArthur Foundation also has been instrumental in bringing together scholars, artists, educators, and designers to exchange ideas, including commission of important foundational research by the polymedia scholar Henry Jenkins. The specific formulations in this paper were first instantiated in a talk I gave at Vancouver’s Simon Fraser University, in January 2007, and this essay received valuable feedback from Jim Gee, Katie Salen, Kurt Squire, and Constance Steinkuehler.

So thanks, everybody. I go to this trouble to highlight some of my sources in order to emphasize the newness of these ideas and the collaborative way that they are emerging from a thick soup of scholarship, debates, and collaborations. This kind of dialog is very much in the spirit of gaming literacy itself, and I encourage you to take part in the conversation as well. Some of the best places to get involved include the Games, Learning, and Society conference held annually at the University of Wisconsin–Madison ([WWW.GLSCONFERENCE.ORG](http://WWW.GLSCONFERENCE.ORG)), the Serious Games Initiative ([WWW.SERIOUSGAMES.ORG](http://WWW.SERIOUSGAMES.ORG)), the Education SIG of the International Game Developers Association ([WWW.IGDA.ORG/EDUCATION](http://WWW.IGDA.ORG/EDUCATION)), and the ongoing dialogs about digital media literacy at the MacArthur Foundation website ([HTTP://COMMUNITY.MACFOUND.ORG/OPENFORUM](http://COMMUNITY.MACFOUND.ORG/OPENFORUM)).\*

# Media Literacy Educators Need Clarity about Copyright and Fair Use

BY PAT AUFDERHEIDE, PETER JASZI & RENÉE HOBBS

Here's a story that's familiar to many readers of this journal: a college professor at a school of education is involved in preparing young people to be high school English teachers, and his students develop activities and lessons that help demonstrate the connection between media literacy and English language and literature. He usually puts together a DVD of students' media works at the end of each semester, but he can't share it with his colleagues at the National Media Education Conference in St. Louis. He's concerned that he may face legal risks since his students make use of popular music and clips from Hollywood movies in their productions.

There is a strong need to critically examine how understandings — and misunderstandings — of copyright and intellectual property affect the work of media literacy educators. The media literacy community shares values, practices and problems directly related to the remixing and transformation of contemporary cultural products with its focus on promoting critical thinking and communication skills. By encouraging people to be thoughtful, reflective choosers and users of information, encouraging critical evaluation skills, and supporting the development of people's ability to present their own ideas using digital tools, media literacy education offers people a wide variety of ways to expand freedom of expression.

But we are living at a time when concern over running afoul of extended copyright protections severely constrict our educational mission and our expressive ability when it comes to issues concerning mass media and popular culture.

Media literacy educators should be at the front lines of the **user rights movement**. Media literacy materials, curricula and resources are created by classroom teachers, librarians, educational publishers, leaders of youth media organizations, media professionals, and especially by children, teens, and students themselves. All of these people need to use copyrighted materials—film and television clips, newspaper and

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magazine articles, popular music, online images, and other digital media content—as an essential part of their own work.

As Henry Jenkins has explained, a set of core beliefs is emerging about the scope of user rights for those who work as amateurs, fans, non-professionals, and citizens. Why? The rapid rise of participatory culture has created new opportunities that were not evident when people largely conceptualized media as a one-way medium dominated by large corporations and mass media culture. Thus, it is worth remembering that teachers and students, perhaps more than any other group of information users, are the intended beneficiaries of the copyright doctrine of “fair use,” which teaches that when the social or cultural benefit of an unlicensed use of copyrighted material exceeds its economic cost, the use should be permitted rather than punished. In an environment dominated by exaggerated demands for copyright compliance, however, it can be difficult for users to take advantage of the rights they are given in the copyright law (and the U.S. Constitution).

## EXTENDING A MODEL FOR ESTABLISHING USER RIGHTS

Over the next two years, we are emulating the consensus-based process that American University professors Pat Aufderheide and Peter Jaszi used in their work with documentary filmmakers, in a project that resulted in the *Documentary Filmmakers’ Statement of Best Practices in Fair Use* ([CENTERFORSOCIALMEDIA.ORG/FAIRUSE](http://centerforsocialmedia.org/fairuse)). This process, coordinated through the Center for Social Media and the Program on Information Justice and Intellectual Property, both at American University, and funded by the John D. and Catherine T. MacArthur Foundation, the Rockefeller Foundation, and the Ford Foundation, resulted in fundamental change in business practices and liberated creativity and free speech for documentary filmmakers.

The process began with documenting the problems that documentary filmmakers had in quoting

copyrighted material in their films—a common occurrence. The results, recorded in the report *Untold Stories* ([HTTP://WWW.CENTERFORSOCIALMEDIA.ORG/FILES/PDF/UNTOLDSTORIES\\_REPORT.PDF](http://www.centerforsocialmedia.org/files/pdf/untoldstories_report.pdf)), shocked many filmmakers, who had not seen how prevalent their individual problems were. Filmmakers regularly paid too much and too often for material (music, video, photos) that they could have used for free under fair use. They did not employ fair use because there was no shared understanding of how to interpret it for documentary practice. Several national filmmakers’ organizations worked with Aufderheide and Jaszi to host focus groups, in which filmmakers wrestled with their own expectations for fair use. The result was a collaboratively-produced statement of best practices in fair use, which has changed industry practice.

This work has been inspiring for many concerned with the impact of copyright on freedom of expression because it specifically addressed the real-world problems of a group of creative professionals who rely, in part, on the ability to use and re-purpose copyrighted audio-visual materials. This project helped filmmakers to better understand the protections afforded by fair use and helped them to rely upon it where appropriate. Through this process, filmmakers persuaded distributors, broadcasters, insurers and other gatekeepers to accept well-founded assertions of fair use in place of affirmative rights clearance. The *Documentary Filmmakers’ Statement of Best Practices in Fair Use* has also been helpful to copyright owners by clarifying what is fair use, and it now provides potential defendants with a basis on which to show that his or her uses were both objectively reasonable and undertaken in good faith. In less than two years, the Statement enabled films to be released into theaters and on television, enabled new projects to be conceived, and convinced insurers—historically extremely cautious about risk—that insuring fair use was good business practice. Documentary filmmakers have opened up an approach that can now be emulated by media literacy educators. Such work can similarly transform and extend the influence of our field.



## COPYRIGHT CONFUSION LIMITS MEDIA LITERACY EDUCATION

In 2007, we conducted research with media literacy educators to determine their existing knowledge and attitudes about copyright and fair use. We discovered that the fundamental goals of media literacy education—to cultivate critical thinking about media and its role in culture and society and to strengthen creative communication skills—are being compromised by ignorance and misinformation about copyright and fair use. Our report, *The Cost of Copyright Confusion for Media Literacy* (Hobbs, Jaszi, Aufderheide, 2007) is available at: [http://www.centerforsocialmedia.org/resources/publications/the\\_cost\\_of\\_copyright\\_confusion\\_for\\_media\\_literacy](http://www.centerforsocialmedia.org/resources/publications/the_cost_of_copyright_confusion_for_media_literacy).

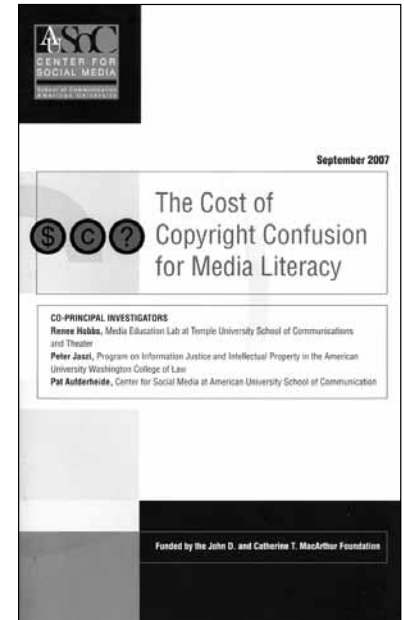
Among the more than 60 K-12 educators, youth media specialists and college faculty we interviewed, we found that teachers face conflicting information about their rights, and their students' rights, to quote copyrighted material. Many confront complex, restrictive institutional copyright policies in the workplace. As a result, media literacy educators use less effective teaching techniques, teach and transmit erroneous copyright information, fail to share innovative instructional approaches, and do not take advantage of new digital platforms.

A sample of these issues help to illustrate the magnitude of the issues at stake:

- Producers of media literacy videotapes who received "cease and desist" letters from media companies were uncertain of how to proceed. Fear of possible legal action has discouraged some educators from developing video and multimedia projects.
- Worried about clearance issues, publishers have been leery of publishing materials for media literacy education. Many high-quality materials are unavailable or hard to access because of the limits of self-publication.
- Many teachers avoid even informal sharing of media literacy materials they have created

with colleagues in other schools. In particular, they feel they must forego the advantages of the World Wide Web as a tool for circulating curricular materials since their materials include excerpts from copyrighted works.

- Teachers in K-12 settings have been stymied by school policies that limit their use of taped off-air materials for media literacy education. One teacher in our study was told by her school librarian that she would be personally liable for copyright violations and the school would not protect teachers if there was a lawsuit. A number of teachers voiced concern about the dampening effect of these policies on the creative use of media and popular culture to promote critical thinking and communication skills.
- Teachers don't like to think that they have to choose between upholding the law and meeting the educational needs of their students. However, many of the teachers we interviewed feel trapped. A high school video production teacher said, "Either they should loosen the restrictions or give the schools the budgets they need to be legal. [The current approach] forces you to be illegal."
- Because of their fear of violating copyright, teachers make assignments based on their expectation that student media productions will not circulate beyond the classroom, limiting the ability of student work to reach real audiences and address genuine issues of community importance.
- Out of misunderstanding and fear, some media literacy educators (at K-12 and college levels) have discouraged their own students from producing and distributing critical commentaries using video and audio excerpts from commercial media content.



- Students who do produce critical commentaries of contemporary media have difficulty getting these works submitted to festivals and competitions. As a result, this important work is not shared with broader audiences.

## FAIR USE IS FRIENDLY TOWARDS MEDIA LITERACY EDUCATION

Most educators don't realize how fair use can help them. When can a producer, educator or student invoke fair use? Since few cases involving contemporary media literary practice have ever reached the courts, it is difficult to know where to look for authoritative answers. The statutory formulation lists a number of factors—the purpose of the use, the nature of the protected work, the extent of the use, and its economic impact. Should fair use be contested, courts must consider all four factors in deciding whether particular uses qualify.

Notably, however, in recent decisions, strong preference has been given in fair use analysis to uses that are “transformative” in character—where a creator has added substantial value of her own to material that was derived (without authorization) from preexisting works. From our perspective, media literacy educators are transforming digital media and popular culture through their use of it. The next question is harder: What, exactly, are the specific kinds of transformative practices that the law will favor? Here, another truth about the fair use doctrine comes into play: In assessing what is (or isn't) fair use, courts are strongly influenced by information about what constitutes accepted practice whatever field is involved. Our new project is an attempt to apply this insight by helping media literacy educators to develop their own strong consensus about appropriate (and inappropriate) use.

We believe that the instructional processes, curricula and multimedia products that are now at the very core of media literacy education fall under the provisions of the fair use exception. Other uses of copyrighted materials for educational purposes may (or may not) qualify for this exception. It is important for the development of media literacy education that these

issues be clarified, and we believe that the use of a consensus-based model will be most effective.

Over the next year, we will meet with media literacy educators around the country to convene informal meetings to work towards the development of a statement of best practices. This document will articulate the emerging consensus among educators and others with interests in media literacy about the scope and limitations of user rights in a contemporary culture that is increasingly participatory, technology-centered, and built upon the roles of both consuming and producing a wide variety of messages involving language, images and digital media. This process will support the growth of the media literacy community and ultimately expand the visibility of the work of teachers and students. It will facilitate the work of a new generation of young people who are growing up expecting to fully participate in contemporary media culture.

It's important to balance the rights of copyright holders with the rights of educational users. Over the next ten years, we believe that media literacy educators will continue to innovate new approaches to build critical thinking and communication skills through the use of mass media, digital media and popular culture. A clearer appreciation for the concepts of copyright and fair use will increase public recognition and respect for new instructional practices. Most importantly, it will help us take advantage of the new models now emerging for the creation, distribution and use of multimedia educational materials. A better understanding of the value and power of fair use will help media literacy educators to flourish. \*

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# Virtual Worlds: An Educational Medium for a New Century

GLOBAL KIDS SHARES BEST PRACTICES ON HOW TO USE VIRTUAL ENVIRONMENTS LIKE **SECOND LIFE** IN EDUCATIONAL SETTINGS AND PREPARE STUDENTS FOR A MEDIA SATURATED WORLD.

BY RAFI SANTO

In a recent internal professional development training held in the educational nonprofit I work for, staff were asked to reflect on the challenges they encountered when in high school. After reflecting, they were asked to re-imagine how those challenges might be encountered by the youth they work with today, and to think about how things have changed from when they were in high school. The response that the majority of educators gave was essentially the same. "They're all hooked into iPods." "They do their research on Wikipedia." "Constantly texting each other." "MySpace!!!" Information technology is pervasive in the lives of young people. Its ubiquity is unprecedented.

Media Literacy, as a movement, emerged out of the need to expand what was traditionally considered literacy due to technological innovations like television, radio and cinema. Understanding how to analyze and evaluate the media that was regularly being consumed became critical to living in a world saturated by it. But as new innovations in technology take hold in mainstream culture and change its constitution, we find ourselves at a moment in time when those expansions themselves need to be broadened.

As media shifts from being a largely top down consumed experience to a participatory phenomenon, new media literacies have been developed. Skills like simulating real-world systems and environments, judging the credibility of information, learning to network in order to find information or skilled individuals and navigating across multiple media modalities are examples of the kind of skills laid out by MIT's Henry Jenkins in a now widely circulated white paper entitled *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*.<sup>1</sup>

Jenkins and a host of other academics and practitioners are examining the contours of this new user-generated media culture, and theorizing

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STUDENTS FROM THE VIRTUAL VIDEO PROJECT AFTER-SCHOOL PROGRAM OFTEN END UP BEING EACH OTHER'S PEER MENTORS. [Photo credit to Global Kids' Staff]

what it means for today's youth. While there are many differences of opinion on what specific effects these new media will have on culture at large, a consensus has emerged that there needs to be a response on the classroom level to educate young people and the adults that educate them on how to engage constructively and responsibly with participatory media.

At Global Kids, our response to this new environment has been to explore these emerging

media through educational projects that engage teens both on and offline. We strongly believe that through utilizing these media in contextualized and reflective situations learners can gain the skills that will allow them to thrive in the 21st century.

For the past seven years, Global Kids has experimented with a variety of media including online dialogues, casual online games, social networks and blogs. In each of these tools we often found the ability to mirror youth development approaches that we'd been using to engage young people in face-to-face classroom settings for over a decade. Online dialogues allowed serious debate to happen. Games provided for highly engaging interactive activities that could deal with real issues. Blogs gave young people a platform to make their voices heard, as well as a space to be reflective. But when we came across the virtual world of *Second Life* (SL), we immediately knew that an extremely powerful tool for educating young people about media had been discovered.

**Second Life is a three dimensional multiplayer online environment in which participants control an avatar, or virtual representation of themselves, and move through and interact with other people, known as residents.** At first glance, a casual observer can easily mistake *Second Life* for a video game; there is a first person perspective popular in many action games, and a person using it often juggles many tasks and windows, something not uncommon in popular massively multiplayer online role playing games (MMORPG's).

But *Second Life* is clearly not a game. For one, there is no end state, or "winning". There is no goal, which is one of the things that makes it feel, well, like life. The second and arguably most dynamic characteristic of *Second Life* is the fact that everything in the virtual world is created by its users, rather than by the company, Linden Lab, that developed the platform. Because the residents retain intellectual property rights over everything they create in-world, *Second Life* is an inherently creative and entrepreneurial

environment, with the users literally building all the aspects and experiences of the world around them. Residents can design interactive art galleries, see live music performances, hold synchronous debates, even going skydiving.

At Global Kids, we've taken advantage of *Second Life's* open-ended and flexible nature in numerous contexts in our work with youth. In face-to-face after-school programs, we've worked with youth to create both animated films and video games about important global issues using *Second Life* as a media creation tool. Sets and costumes were built in-world, screen capture tools were used for filming, immersive gaming environments were created and programmed, all within a virtual landscape.

We've also utilized *Second Life* as a distance education tool. For the past two summers, we've worked with youth in-world to hold summer camps. For a couple of hours each day these youth engaged in interactive workshops about issues like global economic inequality, child rights, war and genocide. The teens then created projects related to issues most important to them.

Through all of these programs, youth we work with have the opportunity to develop high-level critical thinking skills, as well as the ability to reflect upon and create media in a wholly different way than has ever been possible. As a youth development organi-

zation, we found this medium to be particularly powerful. Its constitution naturally lends itself to youth leadership, skill stratification and resulting collaborative teams and overall youth empowerment.

In the course of the two years that we've used this virtual world to conduct educational projects, we've been documenting and reflecting upon what was learned about virtual education and especially best practices for educators looking to use this environment.

The pages that follow contain two sections, prepared by all of Global Kids staff working within *Second Life*. One shares practices on working within the *Second Life* community and how to leverage the strengths of this environment for distance education. The other describes best practices for using *Second Life* as a face-to-face educational and media creation tool. And while much of our language is oriented around educating teens, many of these principles and techniques apply across different student populations.

It's our hope that these practices can not only be a guide on how to implement successful educational programming using virtual environments for those who are interested in doing so, but also provide a view into the possibilities of this type of medium for those that have never imagined its use for education.

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## GLOBALLY CONNECTED: BEST PRACTICES FOR DISTANCE EDUCATION IN **SECOND LIFE**

Within *Second Life*, it's wholly possible to engage students in substantive educational programs without ever seeing them. In *Teen Second Life* (TSL), there is an active community of thousands of teens aged 13-17, likely the largest youth only community and economy in the world. As an educator, you're able to enter this space after a criminal background check but are restricted to the adult owned land

associated with your given project. If you're conducting a program in the adult area of *Second Life*, your potential young adult or adult student base is in the millions. Regardless, once you're in *Second Life*, there are plenty of new challenges to keep in mind. Use the tips below to make the best of this distance-learning context.



TEENS HANG OUT NEAR AUSTRALIA DURING A WORKSHOP ON GLOBAL ECONOMIC INEQUALITY THAT WAS HELD ENTIRELY WITHIN SECOND LIFE. [Credit: Global Kids]

### 1. Create Multiple Places of Meaning

In the real world, a Global Kids program always meets in the same classroom and the setting does not vary. A workshop in *Second Life* can start in the GK Clubhouse, move to the factory, shift to the cloud platform, transfer to the dance club, then conclude at the campfire. Each location can be associated with different types of activities, norms and behaviors. For example, everyone knows to start at the GK Clubhouse, expect interactive activities in the factory, have fun at the dance club and that processing and closure will occur around the campfire. There are different ways of acting expected in each setting. Establishing the association between each modality and a specific location allows its location to be used as embodied shorthand to create the desired mode of interacting.

### 2. If You Build It, They Will Come

Knowing an audience is waiting can add motivation for students. Leverage the larger SL/TSL community as an audience for a program in which the students develop a final project. Create a game. Host a teach-in. Then let students recruit and publicize. Having them become networked and active in the SL/TSL community builds further skills and adds a sense of anticipation around a project.

### 3. Go Beyond *Second Life*

Leverage existing Internet content and tools. Even if the facilitators are in a different room than the participants, they can still run the program as if they were in a computer lab. Create a web-based scavenger hunt, with teams organized through Skype or by SL's voice capabilities. Direct students to relevant multimedia or a socially-conscious game. It will increase engagement and can be critical in developing curriculum around media literacy by pointing to the most accessible media environment in existence.

### 4. Ensure the Program is Designed for the Recruited Participants

Are the participants seasoned veterans or new to SL? Are they in the same time zone or scattered throughout the world? Do they have the technology required for the planned activities? Do the students, as a collective, contain all of the skills required by the curriculum and, if so, does the curriculum take into account methods for creating "cross-functional teams," in which individuals pool their strengths towards a common goal? Are the activities and facilitation tools designed to account for the diversity of participants' backgrounds, learning styles, and age/development?

### 5. Build, Build, Build!

Create as many opportunities as possible for students to express themselves through building. SL is all about building so it is almost hard NOT to do this. If they're capable, encourage them to

build the facilities and material required for the program (the meeting rooms, the workshop materials, t-shirts for the program, etc.). Building items that they can use creates a sense of ownership, which increases retention. (Have a professional team hired to build the necessities, in case students fall short of their commitments). Incorporate building into the activities themselves (e.g. build and act out a scene in a life-size diorama, create a billboard about injustice). Create weekly projects that culminate in some form of public build. Use the weekly projects to model movement towards a project culminating build. Use these builds as a way for the teens to centralize and demonstrate what they are learning. Don't just build from scratch – modify or "mod" existing content, both within *Second Life* or from the web (e.g. open-sourced images from Flickr or clothing designs).

## 6. Don't Just Build; Design and Manipulate Avatars

In *Second Life*, your abilities to control appearance are limitless. Take advantage of this and create opportunities for identity play and self expression through avatar creation and manipulation. This can be used to generate empathy, by putting the people in the shoes of another. It can be used for theatrical purposes, to enact a skit about an issue. It encourages creativity and creates great photo opportunities. Explore existing avatar choices to bring up issues of gender and racial representation; use non-human avatars to address issues of discrimination.

## 7. Think Globally, Act Locally

While students can potentially be scattered across the globe, they can experience SL/TSL as their shared community. Turn educating and inspiring that larger community into a project goal. Making a difference will add motivation for participants. Strategizing approaches for effective education and advocacy will challenge the students to think creatively and critically. It will appeal to their desire to have their voice heard and to make a difference. It will develop their leadership abilities.

The advocacy projects can leverage existing, online actions; why rebuild the wheel? Finally, it means the programmatic impact moves outside the scope of just the participants to a larger community.

## 8. Know When Students Know Best

The students, especially if they're teens, will often know more in certain areas than any adult will about SL or TSL and how the program can best be run. In TSL, depending on program design, the teens can leave the private island and participate in the forums. They hold greater social capital and wider networks. They know expectations, observe norms, and hold extensive local knowledge within the teen grid. Keep a flexible mind when designing curriculum and be ready to take the lead from participants to change it. Hire a SL/TSL native as an intern. Ask them what resources exist that can be utilized, from across the wider virtual world the program is situated in. Build regular student



STUDENTS FROM THREE DIFFERENT GLOBAL KIDS PROGRAMS MEET INFORMALLY IN THE VIRTUAL SPACE, AND THOSE THAT ARE MORE EXPERIENCED SHOW NEW STUDENTS THE INS AND OUTS OF SECOND LIFE. [Credit: Global Kids]





THE MANIPULATION OF AVATARS CAN BE LEVERAGED FOR LEARNING, USING STUDENT CHOICES AROUND SELF REPRESENTATION AS A JUMPING OFF POINT FOR DISCUSSIONS ABOUT IDENTITY. [Credit: Global Kids]

feedback into the program (before, during and after activities), use various channels to solicit that feedback, and reflect this feedback through visible changes in the program.

## 9. Support Emerging Leadership

Create opportunities for leadership and support it. Empower students to be group or land managers. Speak on in-world panels about their experiences in *Second Life*. Meet regularly as a group to offer support and process their experiences. Have them: Facilitate workshops. Give tours. Run movie screenings. Take photos. Host parties. Report on blogs, Moderate events. Promote events. Create tools. Design spaces. Create contests. Make surveys. Create groups. Ask how you can support their leadership.

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## AN IN-CLASS POWERHOUSE: BEST PRACTICES IN USING SECOND LIFE FOR FACE-TO-FACE EDUCATION

*Second Life*, while being a versatile communications tool that brings together people from around the world, is also a dynamic media creation platform. The ability to create films, interactive exhibits and video games, to name a few, makes a strong argument for its usage in media literacy courses. After a year of conducting multiple face-to-face after-school programs utilizing *Second Life*, there were many lessons that we learned, and we've shared a number of them below.

### I. Collaboration and Cross-Functional Teams

One of the strengths of a virtual world is the ability to collaborate. A sandbox is always a popular place in *Second Life*, where residents often hang out and simply play by building things together. A solitary educational task in *Second Life* can be turned from dull to exciting when done by a team. For example,

to teach teens how to build basic objects and bring images into *Second Life*, we pair teams with words, such as "peace" or "justice," send them to the web to find images that depict either their presence or absence, then train them to create billboards in-world to show off their finds. Cross-functional teams, one form of collaboration encouraged by virtual worlds, was described by James Paul Gee as collaborations in which:

...players form teams in which each player contributes a different set of skills. Each player must master a specialty... but the players must understand each others' specializations well enough to coordinate with one another. Thus, the knowledge needed to play the games is distributed among a set of real people and their smart tools, much as in a modern science lab or high-tech workplace.<sup>2</sup>

*When we make machinima, film made using a game platform, everyone plays a different role. Some teens focus on the film making skills, such as directing, or acting, or filming. Others focus on the Second Life aspects, creating sets, or costumes, or avatars. No one teen can do it all, but together they have all the skills they need, and more, to pull it off.*

## 2. Playground Versus Workplace

To many, a classroom that felt like a playground would be viewed as a failure. In *Second Life*, however, especially in the teen grid, it is the norm. SL is already a game-like environment, where residents cannot help but play with concepts of self representation, with alternative physics, and more. But the workplace of the educator, who may be on a schedule with serious content to address, need not be in conflict with the playspace of the learner, who wants to have fun and bring a creative dynamic to their interactions. Educational programs work best in *Second Life* that can strike a balance, live in the space where the line between the two is impossibly blurred, and roll with the unexpected consequences.

*In one week in the Fall of 2006, Global Kids brought two sets of after school youth into Second Life, each for the first time. One was a group using Second Life to make serious games. They entered on a Monday. The second was a group using Second Life to make machinima, animated film produced using a video game engine. They entered on a Tuesday. That Tuesday evening, back at home, after dinner, one of us logged into Second Life to do some work. Standing there were two students from one program and a third from another. The youth were from all over New York City, yet unlikely to ever meet in person. Yet there they were in Second Life, meeting one another, and now patiently waiting for the GK staff member to appear as well. Before long a dozen teens had logged in, not just from these two programs but from our summer camp as well. They all hung out and chatted. The campers offered to take the new residents on a tour of the grid while other youth from the two after school programs went to the closest sandbox to practice building together. Most students do not want to return to school after escaping for the day; these teens, however, could not wait to get back.*

## 3. Social Networking

*Second Life* is not only a graphically rich 3D building environment. It is also an emerging social



[Credit: Global Kids' Staff]

network, similar to others like Facebook and MySpace, in which individuals connect with other individuals, forming networks of connections which interconnect with other networks of connections. There are many tools in *Second Life* for participating in the emerging social network: join or create a group, send an IM to a group to get help from those logged in, send and receive group notices, add people to your friends list and more. These tools can be used to publicize events, to locate advice or help, or, as Henry Jenkins details in *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*, educate teens about how to effectively use these networks:

Learning in a networked society involves understanding how networks work and how to deploy them for one's own ends. It involves understanding the social and cultural contexts

within which different information emerges, when to trust and when not to trust others, to filter and prioritize relevant data, and how to use networks to get one's own work out into the world and in front of a relevant and, with hope, appreciative public.<sup>3</sup>

*We always make sure our teens join relevant groups once they enter Second Life. Rather than answer their questions, such as "I need to film on a racetrack — where can I find one?" or "How can I make a car," we ask them to send a group IM. Someone is bound to be online who can help and they need to learn how to access and assess the resource within their social networks. This turns what may look like an isolated teen alone at a computer into one awash in rich and varied social connections.*

#### 4. Teacher Becomes Facilitator, Student Becomes Peer Mentor

You do not need to know something in *Second Life* in order to teach it — you just need to know how to connect your students with people who do. As a social network, information and people are ever-present and fluid; educators who can navigate these networks and train their students to do the same need not rely on being the expert importing knowledge but become facilitators connecting students and information.

As teachers become facilitators, and teens specialize and their skills stratify, learners are able to teach one another, not necessarily in a formal manner but informally, when required. Rather than isolate learners from one another, or discourage side conversations, the interactions between students can be where some of the best learning takes place, for all involved.

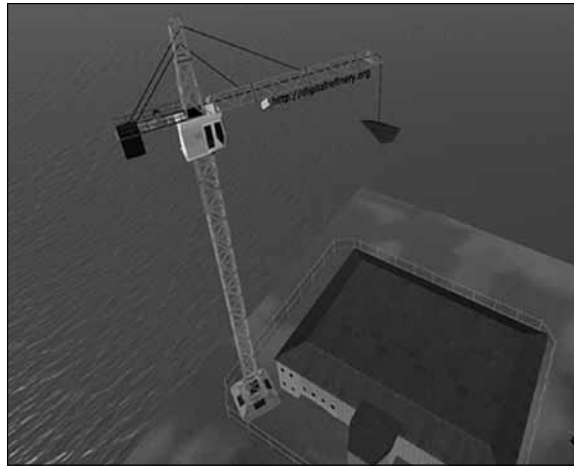
*During our after school gaming program, two GK Trainers worked with fifteen teens. Each teen picked one thing they wanted to learn. Not only would it have been impossible for the two trainers to simultaneously teach fifteen different Second Life skills, but most of the skills were beyond the modest abilities of these trainers: building a car, designing*



[Credit: Global Kids]

clothing, etc. But by the end of the day each teen said they learned the skill they wanted to know. How? After gathering a list of the desired skills, the GK trainers sent a group IM to the Global Kids' group with the list and a request for help. Within ten minutes all of the after school teens were paired with one or two teens in-world and were learning their desired skills. When an in-world helper was not up to speed, a new request was sent to the group and a new volunteer was recruited. This would have been a nightmare to coordinate in advance; it relied on the ability to reach out in the moment to those currently online, relying on the fact that help is usually available. So rather than teach the SL skills, the GK trainers set-up the relationships, wandered the room making sure the students were getting the support they required, and processed it together afterwards as a group.

[Credit: Global Kids]



## 5. Scale Projects to Fit Resources

Not all programs meet for the same period of time. Not all programs have teens with strong digital literacy skills, nor teens who can spend time in *Second Life* outside the program. As *Second Life* creates opportunities to literally build your dreams, it is easy to overreach. Just because it CAN be done in *Second Life* does not mean you and your program can be the ones to do it.

*In our first year bringing our after school gaming program into Second Life, we made one project scaling mistake after another. First we presumed we could teach the participants sophisticated skills like coding, even though they only met with us once a week, on substandard computers, and had little access to Second Life outside our program. We then turned for help to an after school program we were teaching remotely in Washington, D.C., at a technology high school. The computers were excellent and the teens had strong digital literacy. However, they too had little access outside the program and, though meeting twice a week, the program ran half as long as it needed to. Luckily, we found a third group of teens, self-organized in Second Life with endless time in-world and high-end SL skills, with which to collaborate and complete the project. Had we designed a more modest final project for our after school gaming program we would not have run over schedule nor been desperate to add one group of teen resources after another.*

## 6. Situate Second Life within a Larger Internet Ecology

No virtual world is an island (even if you can rent one in *Second Life*). Leverage the greater Web 2.0 world – in which participants create and share content – to take full advantage of the ability to bring content in to, and take it out of, SL. The whole is greater than its parts. This also allows the use of *Second Life* as a tool for producing youth media and distributing it to a broader audience.

*In its first few weeks, over a thousand people on YouTube.com watched the machinima made in our after school program. Teen reporters write articles about our programs on our blog, HolyMeatballs.org, and post photos uploaded to our account on Flickr.com. They debate issues on public forums like MacArthur's Spotlight on Digital Media and Learning blog. They use images.google.com and Wikipedia.com to research photos and information for workshops. Second Life may play a central role in these programs, but incorporating these other tools enhances what a virtual world can offer.*

## 7. Leverage In-world Resources

Don't rebuild the wheel. Leverage existing in-world resources, both people and tools, to strengthen your programs. Use the SL listservs to find people and tools that people recommend. Shop in *Second*



STUDENTS FROM PLAYING 4 KEEPS, AN AFTER-SCHOOL PROGRAM IN WHICH TEENS CREATE VIDEO GAMES RELATED TO SOCIAL ISSUES, COME INTO SECOND LIFE AND ANALYZE THE CORE MECHANICS OF A VARIETY OF GAMES FOUND IN-WORLD. [Credit: Global Kids]

Life and on the web-based stores to find the tools you need. Use your social networks to find the people who can help. And if you cannot find the tool you need, build it yourself!

*For displaying photos and text, we often use a free white-board. It is a board that you can pre-load with images (composed of pictures or text) which can be clicked-through to display. When we needed to curate games made by teens on our new serious gaming island, we found a teen volunteer to manage the project. Volunteers are easy to come by in SL; there are always people looking for something to do, especially things that will make them feel like they are making a difference. The teen managing*

*our island then co-taught two sessions of our after school gaming programs, using Skype and Second Life to give the teens in Brooklyn, New York a tour of game genres in TSL, all from the comfort of his British living room.*

## 8. When Technology Fails, Know When To Move On

Technology has this funny thing about not working when you least expect it. Don't throw in the towel at first blush, but also know when to move on. Be flexible with the program and have a backup handy just in case. When possible, test everything in advance. Is a new version of the *Second Life*

software required? Did that item that worked when one person was using it work when 15 students had a simultaneous go at it?

*We were so excited to give the teens in our after school machinima program a sophisticated tool for filming. These virtual cameras allow the user to establish a path and then sit on a chair that will trace it as he or she films. However, no one had brought this camera over from the main grid to the teen grid before. Certain features only worked for adults, and not teens. As we had not tested it on teens in advance, we learned the hard way, wasting precious program time trying to figure out why it did not function properly. As we tried to debug it over the next few weeks, we continually entered the program convinced it would now work only to learn, to our disappointment, that something new was in the way. Resolving that the program was a bad place to debug the camera, we eventually decided to move on, perhaps a few sessions too late. (A few months later, after it was all fixed, we re-introduced it to the program to great success).*

## 9. Recognize and Support Skill Stratification

Learners will develop skills in different orders and at different rates. Some will be fascinated with their avatar, learning sophisticated ways to modify their shape or create clothing. Some will be drawn to build increasingly more sophisticated objects. Others will make friend after friend and learn how to manage the social network. Rather than be a liability, this can be a strength. Support the leadership skills of those early adapters who develop certain skills, encouraging them to help others and make that role visible.

*In our after school machinima program, six sessions in Second Life had barely passed before one GK trainer overheard one GK youth leader tell another, when having*

*difficulty in Second Life, to “Ask Joe.” Not the GK trainer, an expert in Second Life, but Joe, a teenager, who had emerged as the first peer resource. For weeks after, rather than answer certain questions, the GK trainers would defer to Joe for an answer and, at times, ask him to first learn a skill and then teach the others. This initiated a year of the youth looking to one another for guidance as different teens specialized and excelled at different skills. \**

To learn more about the work that informs this report, please visit our blog at

[HOLYMEATBALLS.ORG](http://HOLYMEATBALLS.ORG)

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[Credit: Global Kids]

# Media Literacy, Media Fandom, and Participatory Culture

BY CYNTHIA W. WALKER, PH.D

So, did you see that *Star Trek: New Voyages* episode in which Sulu gets caught in a time rift and comes back as a savage warrior thirty years older—with a daughter? Or how about that new *Star Wars* short with the cool light saber battle between a Sith Lord and a Jedi Knight set in an eye-catching futuristic bar? Frankly, I'm looking forward to the *Buffy the Vampire Slayer* spin-off featuring that rockin' rebel vampire, Spike.

Don't bother to check your TV Guide or your local theater listings. None of the offerings described above is available on film or television (even cable) and what's more, they were made, not by big production studios, but by members of the audience.

Welcome to Media Fandom, where even the oldest, most obscure television series, will, like the Velveteen Rabbit, live on because it was loved so much. Remember *The Man from U.N.C.L.E.*? *Due South*? *Quantum Leap*? They're not only around, but still alive and kicking with new stories appearing every week. And if you were a regular viewer of television shows like *Buffy*, *Angel*, *Enterprise*, *Emergency*, *Sports Night*, *Firefly* or *The X-Files*, you can look forward to new seasons, available right now on the Internet. Of course, they're "virtual" seasons, which means you'll be reading either scripts or narrative, but these new

episodes have been written with love and care and an eye for continuity with the original run of the series, so you might not even notice that you're not actually watching a screen.

In her 1992 essay, "Fandom as Pathology: The Consequences of Characterization," Joli Jensen<sup>1</sup> describes two long-time images of the fan: as an obsessed, alienated loner or as a member of a frenzied mob. Both images, of course, are just extreme caricatures of how aficionados of pop culture are so often portrayed: alone and alienated, or vulnerable and part of a crowd.

However, since the 1990s, that image has begun to change. Thanks to the work of media theorists like John Fiske, Henry Jenkins, Camille Bacon-Smith, John Tulloch, Constance Penley and a host of others, a third, more sympathetic and realistic image of the fan has emerged. These writers describe fans as discerning, discriminate, selective, productive (and even scholarly) members of tribe-like social communities—communities defined by particular critical, interpretive and creative practices.

There have always been fans of course, and if you think about it, we're probably all fans of something. Paul Théberge of Carleton University<sup>2</sup> trac-



es the rise of modern fan culture back to the 19th century, to the emergence of “stars” like Paganini and Liszt and the careers of popular figures like Sarah Bernhardt and Jenny Lind, P.T. Barnum’s “Swedish nightingale.” Fans didn’t really begin to organize seriously, however, until the 1930s when Club Crosby (devoted to Bing), the longest, continuously running fan club was established. Literature-based fandoms, like the Baker Street Irregulars (1934) and the Jane Austen Society in the U.K. (1940) were also founded.

Around that same time, Hugo Gernsback began publishing the pulp magazine, *Amazing Stories*, which featured an extensive letters column in which science fiction fans communicated with authors and editors and, most importantly, with each other. Other magazines devoted to science fiction also featured letters sections, but these weren’t enough to feed the voracious hunger of the fans and they began to publish their own magazines (dubbed “fanzines”) and organize their own Amateur Press Associations or “APAs” for short.

Soon, writing and exchanging letters wasn’t enough, so fans began to form their own local clubs and then meet with other local clubs. In 1939, the first World Science Fiction Con was held in New York City to coincide with the World’s Fair and two hundred fans attended. At the World Con held in Boston in 2004, that number had grown to 6,000.

When most people hear about modern Media Fandom, however, the sprawling, loosely networked subculture of interest groups organized around various artifacts of popular culture, the first image they think of is the so-called Trekkie. There is good reason for this. When television producer

Gene Roddenberry wanted to drum up support for a new risky and cerebral science fiction series called *Star Trek*, he screened an episode at the 1966 World Con held in Cleveland, Ohio, where the 850 attendees gave it a standing ovation. Roddenberry’s strategy was to forge an alliance with SF fans and it worked. When the series was threatened with cancellation during its second season, an estimated one million pieces of mail flooded the mailboxes at NBC. With Roddenberry providing encouragement and resources, fans also set up picket lines outside the network’s offices in Burbank and in New York City.

IN 1939, THE FIRST WORLD SCIENCE FICTION CON WAS HELD IN NEW YORK CITY TO COINCIDE WITH THE WORLD’S FAIR AND TWO HUNDRED FANS ATTENDED. AT THE WORLD CON HELD IN BOSTON IN 2004, THAT NUMBER HAD GROWN TO 6,000.

In return for their support, Roddenberry turned a blind eye to the fans producing and distributing non-licensed *Star Trek*-related merchandise, art and amateur publications. Using ditto and mimeograph machines, fans began to publish their own “zines” that featured not only the predictable collection of non-fictional opinion pieces, surveys and news, but also fictional stories based on *Star Trek* by amateur writers. At first, the stories merely extended the science fiction-inspired canon of the

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series, but eventually, the fan writers began to venture boldly where no professional writers had gone before. They filled in back stories on the major characters and alien cultures, retold episodes from the perspective of minor characters, reinterpreted the *Star Trek* universe into other genres like romance and soap opera, or crossed it with the story “universes” of other television shows like *The Man from U.N.C.L.E.* Soon, fan writers and editors were developing their own genres like hurt/comfort, which emphasized emotional themes, and “K/S” or, more broadly, “slash,” which re-imagined the relationships between Captain Kirk and Mr. Spock and other same-sex pairs as romantically involved. Some of the stories continued to be aimed at a general, G and PG-rated audience, but others were written to appeal to more mature readers.

Even after *Star Trek* was cancelled by NBC in 1969, subsequent successful syndication runs on independent stations not only kept the show alive, but encouraged the audience to grow even larger and more enthusiastic. By 1972, *Star Trek* fandom was organized enough to hold its first convention in New York City, which Gene Roddenberry attended. A few hundred fans had been expected; over 3,000 showed up. The following year’s *Trek* con drew 6,000 and the year after that, 15,000.

Separating from mainstream science fiction fandom (which was predominantly male) in the 1970s, *Star Trek* fandom became Media Fandom (predominantly female) and grew exponentially. During the next two decades, fan writers began to apply what they’d learned in *Star Trek* to other beloved American series like *The Man from U.N.C.L.E.* (which had aired almost concurrently with *Star Trek*) and *Starsky and Hutch*, and British series like *Blake’s 7*

and *The Professionals*. When *Star Wars* arrived in 1977, Media Fandom exploded and fanzines multiplied. Conventions that featured discussion panels and writing workshops by fans and for fans began to be scheduled alongside the larger, commercially-run cons that continued to feature celebrity and commercial industry guests.

Technology aided and abetted fan practices and production. Just as the photocopier made the publishing of zines possible, the arrival of the VCR gave rise to a new kind of fan production—the “fanvid”—in which fan artists could re-edit shots and scenes from favorite shows and present them in a music video format. But neither had as profound an effect on the shaping and promoting of media fandom and fan production as the arrival of the personal computer and the establishment of the Internet. Beginning with discussion groups established among science and technology professionals using the old Arpanet, fandom spread out quickly, filling up virtual spaces, first on the Unix Users Network or USENET, then on commercial services like General Electric’s GENIE, CompuServe, and Prodigy, later transferring into free services like Yahoogroups and LiveJournal and finally arriving as independent fan-established and maintained Internet sites like the massive archive, Fanfiction.net, home to over 300,000 stories based on Harry Potter alone (the second most popular subject, Lord of the Rings, has over 40,000). Today, typing simply “Media Fandom” into the Google search engine yields over two million hits.

The Internet allowed fans in countries throughout the world to link up as a global community, making it possible to share and spread the appreciation

# Bringing *Fandom* to the Media Literacy Classroom

Fan practices are ideal for engaging students in media literacy. Some suggestions:

- Have students compare official and unofficial sites for a television series or film. What do they offer that's similar or different? Are there ads? What are the ads promoting? Follow the links offered by the site. Where do they lead you?
- Choose a favorite film, series, interactive game or popular book. See if you can locate communities organized around your interest. How many sites are there? Are there any discussion groups on YahooGroups? Are there any fan fiction stories on Fanfiction.org? Any fan made films or videos?
- Write it yourself: Recap a television episode of film with commentary. Create a blog from the perspective of your favorite character. Write a story based on your series, film, interactive game or popular book. You might: fill in a missing scene; extend the timeline before or after the main story; tell the story from a minor character's point of view or from the villain's perspective; insert yourself into the story and play a new character; combine the characters of two or more favorite shows.
- Produce it yourself: write a script based on your favorite series, film, interactive game or popular book. Then shoot a scene as digital video or create it as machinima. How does what's on the screen compare with what's on the page?

Here are some links to get you started. Please note that as in mainstream culture, some stories, films, vids, art work and sites in fandom are meant for adult audiences and are usually labeled as such. Please check the ratings before you share with your students.

## Atom films *Star Wars* Fan Movie Challenge

[HTTP://WWW.ATOMFILMS.COM/2007/STARWARS/CHALLENGE/INDEX.JSP](http://www.atomfilms.com/2007/starwars/challenge/index.jsp)

## *Star Wars* Official Site

[HTTP://WWW.STARWARS.COM/](http://www.starwars.com/)

## *Star Wars* Unofficial Fan Site

[HTTP://WWW.THEFORCE.NET/](http://www.theforce.net/)

## *Star Trek* Official Fan Site

[HTTP://WWW.STARTREK.COM/STARTREK/VIEW/SERIES/TOS/](http://www.startrek.com/startrek/view/series/tos/)

## *Star Trek* Unofficial Fan Site

[HTTP://WWW.TREKWEB.COM/](http://www.trekweb.com/)

## *Star Trek* New Voyages

[HTTP://WWW.STARTREKNEWVOYAGES.COM/](http://www.startreknewvoyages.com/)

## Fanfiction.net

[HTTP://WWW.FANFICTION.NET/](http://www.fanfiction.net/)

## Fan Lib

[HTTP://WWW.FANLIB.COM/](http://www.fanlib.com/)

## Yahoo! Groups

[HTTP://GROUPS.YAHOO.COM/](http://groups.yahoo.com/)

## Television Without Pity

[HTTP://WWW.TELEVISIONWITHOUTPITY.COM/](http://www.televisionwithoutpity.com/)

## Ain't It Cool News

[HTTP://WWW.AINTITCOOL.COM/](http://www.aintitcool.com/)

## You Tube

[HTTP://WWW.YOUTUBE.COM/](http://www.youtube.com/)

## Imeem

[HTTP://WWW.IMEEM.COM/](http://www.imeem.com/)

## Samples of Fan-made videos

[HTTP://LITHIUMDOLL.IMEEM.COM/VIDEO/-ROAYISJ/BTVS\\_IPUTYOUTHERE/](http://lithiumdoll.imeem.com/video/-roayisj/btvs_iputyouthere/)

[HTTP://SUBLIM.IMEEM.COM/VIDEO/LQU2TOI/US/](http://sublim.imeem.com/video/lqu2toi/us/)

## Links to *Buffy* and other Virtual TV

[HTTP://WWW.BTVSCHOSEN.COM/LINKS.PHP](http://www.btvshosen.com/links.php)

## *Battlestar Galactica* (Ron Moore)

[HTTP://BLOG.SCIFI.COM/BATTLESTAR/](http://blog.scifi.com/battlestar/)

[HTTP://WWW.SCIFI.COM/BATTLESTAR/DOWNLOADS/PODCAST/SEASON03/](http://www.scifi.com/battlestar/downloads/podcast/season03/)

## Lost Official Site

[HTTP://ABC.GO.COM/PRIMETIME/LOST/INDEX](http://abc.go.com/primetime/lost/index)

## *Heroes* Official Site

[HTTP://WWW.NBC.COM/HEROES/](http://www.nbc.com/heroes/)

## Machinima

[HTTP://WWW.MACHINIMA.COM/](http://www.machinima.com/)

of more localized forms of pop culture like Spanish telenovelas, Indian Bollywood films, and most importantly, Japanese anime and manga. Fans could share their vids with an even wider audience on video sharing sites like *YouTube* and *Imeem*. Digital technology also allowed gaming fans to create "machinima," CGI (computer-generated imag-

ery) films created by using the tools and resources found in interactive gaming.

Fans today continue to be passionate about their favorite shows, films, popular books and games, but unlike Chance the Gardener in *Being There*, they like to do a lot more than watch. They also discuss,

collect, critique, analyze and produce—in other words, everything we would expect from media literate consumers of culture. Fans build community through discussion groups and chat rooms, role-playing games, mailing lists, and conventions. Individually and collaboratively, they recap and write commentary; create art; design sites; collect memorabilia; compile encyclopedias, background guides, and wikis; write and archive all kinds of fiction from vignettes to novels, and finally, manipulate screen captures, video and film clips, and gaming codes to produce new interpretations of the original source text.

ALL OF THIS DO-IT-YOURSELF ACTIVITY  
HAS PROMPTED MEDIA THEORIST HENRY  
JENKINS TO DUB THE NEW STATE OF AFFAIRS  
“PARTICIPATORY CULTURE.”

Created by dedicated amateurs and moonlighting hobbyists, most of the end products are available for free on hundreds of fan-run, unofficial sites. Fan scholar Francesca Coppa compares fandom to cultural performance—a kind of community theater.<sup>3</sup>

All of this do-it-yourself activity has prompted media theorist Henry Jenkins to dub the new state of affairs “participatory culture.” With digital technology and the Internet facilitating the production and distribution of media products, practically anyone can be a producer these days. What’s more, with the development of the World Wide Web, the fannish sensibility has begun to spread through, and exert an influence on, the more generalized audience. In 2002, Emily Nussbaum wrote a column for the online magazine, *Slate*, about the pleasures of what she called “participa-

tory” TV: “... the viewers at home have become two parallel audiences: the isolates and the plugged-in. And God help me, plugged-in is better... At the most basic level, being plugged-in means becoming invested in the creation of the show, rather than simply a passive recipient.”<sup>4</sup>

Not surprisingly, Hollywood producers are taking notice. As Nussbaum points out, more and more creators and/or members of their production staffs are going online in one form or another, making direct contact with the audience and engaging in an on-going dialogue. As with DVD extras, all kinds of behind-the-scenes production material are being made available such as scripts, deleted scenes, and commentary by folks involved in the production. For example, *Battlestar Galactica* executive producer Ron Moore not only maintains a regular blog, but discusses aspects of the process involved in creating the series in regular pod casts available for download.

Despite all the recent talk about the “convergence” of media producers and audiences, interaction between the two groups is not something entirely new. Even before Gene Roddenberry unwittingly opened Pandora’s Box, professional writers and fan readers in Science Fiction fandom socialized with one another and Norman Felton, producer of *The Man from U.N.C.L.E.*, corresponded with fans and shared series-related memorabilia. After Roddenberry, a new generation of writer/producers, including most notably Michael Stracynski, creator of *Babylon 5*, Chris Carter, creator of *The X-Files*, Joss Whedon, creator of *Buff*, *Angel* and *Firefly*, Peter Jackson, director of the *Lord of the Rings* trilogy, and the aforementioned Ron Moore, visited discussion boards, appeared at cons, set up blogs, in-

serted “shout out” acknowledgements of fans into shows, and interacted with members of the audience on a regular basis.

Of course, not all producers of popular culture feel the same way about fans and fan appropriation of their work. Author Anne Rice strongly disapproves of fan fiction based on her vampire characters, while *Harry Potter* author J.K. Rowling and *Star Wars* creator George Lucas find themselves heartily cheering on some types of fan activities while discouraging others.

Because copyright owners in the U.S. have the right to control or restrict the publishing of derivative works based on their material, fan works currently exist in a legal grey area. While critics of fan production consider the activity serious copyright infringement, others, like intellectual property expert Rebecca Tushnet, argue that some fan works, like fan fiction, may be allowed under fair use and First Amendment rights to criticize and parody. They point out that intellectual property law is not as clear-cut in other nations. Indeed, in Japan, amateur published manga or “dojinshi” are supported and encouraged by the professional manga industry.

A test court case might solve the matter, but as time goes on, the legality question may become all but moot. Just as Gene Roddenberry did in the 1960s, networks and production studios are discovering that catering to fans might just be good for business. Take a look at the official sites set up for cult favorites like the new television series, *Lost* and *Heroes*, and you’ll find them filled with spaces for fan discussion and material that can be utilized in fan production. The BBC’s site even has a “Writer’s Room” section that offers tips and encouragement

for new writers as well as a means to submit unsolicited work. And any professional writer or producer worth his or her salt these days will make sure to keep tabs on fan news sites like *Ain’t It Cool News* and the popular recap site, *Television Without Pity*.

In an “if you can’t beat ‘em, join ‘em” move, Hollywood professionals have invaded and even co-opted fan spaces by sending in representatives to join bulletin boards, discussion groups and online chats in order to orchestrate viral marketing efforts. And, with the recently established *Fanlib.com*, commercial interests are actively attempting to lure fan fiction writers away from posting on their own sites with contests, prizes and other offers.

Citing the greatest phenomenon in fandom history, Coppa observes that *Harry Potter* is no longer simply a series of books written by one author, but “an entire creative universe within which millions of people are writing, reading, reporting, discussing, analyzing, criticizing, celebrating, marketing, filming, translating, teaching, theorizing and playacting.”<sup>5</sup>

Sounds like just the right place for media literacy!\*

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5. Coppa, p. 241.

# I WAS THERE: PLACE-BASED AUGMENTED REALITY GAMES IN THE CLASSROOM

BY JIM MATHEWS

I first learned about Augmented Reality (AR) gaming as part of an educational design course taught by Professor Kurt Squire at the University of Wisconsin-Madison. The course focused on design-based research as a way to develop and research the use of interactive media within educational settings. For my final project, I designed and piloted an AR game called *Dow Day*.<sup>1</sup> Since then, I have implemented the game five times in various social studies classes and once with adults as part of a learning symposium at UW-Madison. I present my experience with *Dow Day* as an example of how video games, but more specifically AR games have the potential to provide rich contexts for learning and to demonstrate how research in video games can inform the way that teachers think about teaching and learning.



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filmmaking, photography, writing, and service learning projects. Students involved in his school-based video production studio have produced numerous videos for local non-profit agencies on topics ranging from aging to environmental education. In addition to teaching high school, Jim is currently pursuing a doctoral degree in Curriculum and Instruction at the University of Wisconsin-Madison. His current research interests include Augmented Reality gaming, informal school-based gaming groups, and location-based media. Jim is also a researcher at the Local Games Lab, a research group interested in using Augmented Reality games and similar technologies to teach through and about local place. For more information about Augmented Reality games visit the Local Games Lab online at [HTTP://LGL.GAMESLEARNINGSOCIETY.ORG](http://lgl.gameslearningsociety.org)

Recent trends in history education have emphasized the importance of engaging students in the process of *doing* rather than simply *consuming* history. Proponents of this approach argue that instead of simply memorizing a series of names, dates, and places that support one singular historical “truth,” students should learn how to pose inquiry questions, select, interpret, and analyze evidence, solve authentic problems, and develop their own historical interpretations (Holt, 1990; Wineburg, 2001).

One way to provide students with an opportunity to *do* history is by developing historical simulations that engage them in the historical inquiry process. While there is a long tradition of using simulations in schools, advancements in computer and communication technology (e.g., cell phones, GPS-navigation systems, video and computer games) provide unique opportunities for designing and enacting simulations. As a teacher, I have been exploring the potential of one of these new technologies, AR gaming,

to engage my students and scaffold their learning in journalism and history.

## WHAT ARE AUGMENTED REALITY GAMES?

The AR games discussed here are place-based games played on a handheld computer, such as a PDA or similar mobile device, that uses a Global Positioning System (GPS).<sup>2</sup> As players move through the physical world, the handheld computer and GPS are used to create a virtual layer (e.g., data, photos, videos, virtual interviews) that “augments” the real-world context. On a simple level, think of an audio tour at an art museum. As visitors travel through the museum they use an audio player to receive additional information about particular art pieces while standing directly in front of them. Similarly, in AR games, as players explore the physical environment or “game space” they can meet and interview virtual people or “trigger” virtual data that is connected to specific GPS locations (Klopfer et al., 2003). For example, during a game about the history of Madison, Wisconsin students could view an historical video or virtually interview the Governor while standing directly in front of the State Capitol building.

What separates AR games from tours, however, is that they incorporate game principles such as differentiated roles,



challenges, choice, and collaboration (Squire & Jan, 2007). For example, instead of simply taking a tour of an archaeological site, students might investigate the site as an archaeologist or anthropologist who has been asked to research the people who once lived there and form hypotheses about why they disappeared.<sup>3</sup> Similarly, instead of studying the Vietnam War protests by reading a textbook, discussing an academic article or watching a documentary, students might learn about them by role-playing as a journalist, police officer, or protestor.

## AR GAMES IN THE CLASSROOM: THE CASE OF DOW DAY

*Dow Day* is an AR gaming unit designed to provide an opportunity for students to experience a specific historical event from a first person perspective. The game revolves around a series of anti-Dow Chemical protests that took place on the University of Wisconsin-Madison



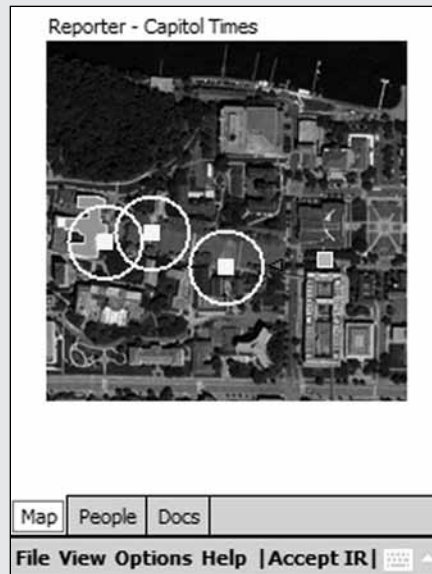
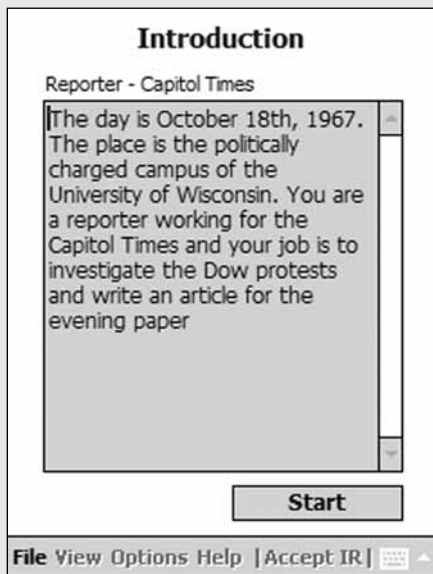
STUDENTS PLAYING THE GAME AT UW-MADISON. [Photographer: Ming-Fong Jan]

campus in October 1967. The protests were intended to raise awareness about Dow Chemical's production of napalm and stop the company from conducting student interviews on campus. In the game, players role-play as journalists who have been asked to investigate the root causes of the protests and report on why and how they turned violent (Squire et al., 2007; Maraniss, 2002).

A major goal of the *Dow Day* unit is to help students think like journalists by pro-

viding them an opportunity to role-play as journalists who have been called upon to participate in a "real-life" investigation (Gee, 2004; Shaffer, 2006). The game and associated curriculum attempts to situate students' learning around authentic contexts, position them as active participants in the journalistic process, and allow them to perform tasks and use the same language and tools that professional journalists use to investigate similar "real-world" problems (Gee, 2004; Shaffer, 2006). As part of this process, the students read, analyze, and interpret documents (newspaper articles, photographs, charts, graphs, and videos), pose inquiry questions, and conduct independent research.

The game itself is played at UW-Madison at the actual location where the Dow Chemical protests took place back in 1967. During the game the students use a GPS-based handheld computer to conduct virtual interviews, obtain and read primary documents, and view historical video clips and photos. At the end of the game they are required to write a newspaper article from the perspective of the newspaper they work for and select two photographs that will run with their



**ABOVE LEFT:** THE BRIEF INTRODUCTION THAT APPEARS ON THE SCREEN AT THE START OF THE GAME. **ABOVE RIGHT:** A MAP OF THE GAME SPACE. [NORMALLY IN COLOR], THE [RED] TRIANGLE REPRESENTS THE PLAYER. [YELLOW] BOXES ARE PEOPLE THE PLAYERS CAN INTERVIEW. [GRAY] BOXES REPRESENT A CHARACTER THE PLAYERS HAVE ALREADY INTERVIEWED.



story. The goal is that by completing the curriculum and game challenges students will develop a situated understanding of essential media literacy principles (e.g., media as a construction of reality) and develop an experiential understanding of the problems and challenges that journalists face when attempting to investigate and report on events, especially during times of war (Squire et al., 2007).

Inviting students to role-play as journalists who are given the task of solving a real-life problem, requires them to move from passive to active learners. Not surprisingly, almost all of them noted how this approach differs from the way they usually study history in school. One student said that the game "...presented facts, but in a more interesting way. It gave like a story or scenario that you could follow, so it kind of made it into a game. You got more engaged than just reading out of the textbook." Another student commented that the game "was a good way to learn because it made me feel like a reporter." (Squire et al., 2007).

## WHY USE AR GAMES FOR LEARNING?

While there was variation in the way my students responded to *Dow Day*, several trends emerged related to student engagement and learning. One of the most exciting things about the game was that it provided numerous teachable moments by creating a rich context for classroom discussions, especially related to newspaper reporting. For example, when a group of UW-Madison students protested the C.I.A.'s presence at a campus job fair, my students were able to use their experiences playing *Dow Day* to frame their analysis of the situation. They



THIS IS WHAT STUDENTS SEE WHEN THEY TRIGGER A VIDEO CLIP DURING THE GAME. STUDENTS VIEW THE VIDEO IN THE ACTUAL LOCATION WHERE IT WAS ORIGINALLY TAKEN IN 1967.

discussed differences in the way that the protests were reported in various newspapers across town and compared the circumstances surrounding the protests against the C.I.A. to the protests that took place against Dow Chemical in 1967. Similarly, when we watched a documentary about the protests at the end of the unit students reflected back on their game experience in order to compare the perspectives presented in the documentary with those foregrounded in the game. In both cases, the *Dow Day* curriculum provided a context for thinking about the role the mass media play in *constructing reality*.

Additional discussions during the unit centered on civil disobedience, student rights, reporting during times of war, bias in the media, and the role of "new media" in news reporting.

For a few of my students these discussions extended beyond the classroom. One parent told me she was surprised when her daughter not only shared what she was studying in school, but also

asked her questions about living in Madison during the 1960's. She contacted me to let me know that this was not typical behavior for her daughter and that the game had really captured her interest.

Playing the game in the same location where the events took place was another component of the experience that sparked students' interest. Many students were intrigued by the fact that the protests took place so close to where they live. After the unit, when we watched a documentary about the protests, many students got excited about seeing the same buildings and people they encountered while playing the game. Place was also important in that it provided students with additional information they would not have encountered had they simply read a book about the protests. For example, students mentioned that being able to watch the video clips in the place where the events really happened helped them better hypothesize why the protests turned violent. This was especially the case when players walked down the same narrow hallway the protestors occupied back in 1967 during their attempt to block the



A STUDENT LOOKING AT ADDITIONAL EVIDENCE / PRIMARY DOCUMENTATION BACK IN THE CLASSROOM. [Photographer unknown]

Dow interviews from taking place. Being in the hallway, while watching archival video clips, allowed the students to see how the narrow design and limited number of exits facilitated the violence that erupted.

## GAME CRITIQUE AND CO-DESIGN FOR MEDIA LITERACY

In addition to using the curriculum as a way to develop my students' historical thinking and journalism skills, I developed a game critique activity as a way to get them to think about how the game was designed. Providing a space for critique within the curriculum gave students a voice, encouraged them to think about the game on a meta-level, and facilitated a discussion about game design within an educational context. The students' prior knowledge and expertise with games allowed them to critique the design of *Dow Day* and make suggestions for improvement. As part of their critiques, students suggested new roles that could be added to the game, developed ideas for improving game flow and player choice, recommended updates to the game software, and talked about bias within the game. Importantly, many of their suggestions were integrated into future iterations of the game.

While it is overly optimistic to expect that this unit completely changed the way that my students read the news or think about history, it did provide a shared experience and context that proved useful. Not only did the game increase my students' engagement, it provided them an authentic context for developing their critical reading and historical inquiry skills. It also gave them an opportunity



STUDENTS ENTERING BASCOM HALL IN ORDER TO "INTERVIEW" THE CHANCELLOR. THE INTERVIEW IS A VIRTUAL INTERVIEW THAT APPEARS ON THE PDA WHEN STUDENTS WALK NEAR THE CHANCELLOR'S OFFICE. [Photographer: Ming-Fong Jan]

to wrestle with the notion of "historical truth" and see first-hand how the media is shaped by the economic, political, and social contexts in which it is created. My experience designing and implementing the *Dow Day* curriculum has shown me that AR games have great potential for teaching and learning. In the future, I plan to design additional AR games for use in my classroom and hope to get my students involved in designing their own games.\*

## NOTES

- 1 I designed *Dow Day* with the help of Ming-Fong Jan from UW-Madison.
- 2 The tools used to create and run this specific type of AR game were developed by Eric Klopfer and his colleagues at M.I.T. You can learn more about their work online at <http://education.mit.edu/ar>.
- 3 This is the premise for a game I am currently designing around a Native American archaeological site near Madison, Wisconsin.

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# Understanding Media Literacy in the Digital Age

BY JULIE FRECHETTE, PH.D.

There are over 6.5 billion Internet users worldwide today (Internet World Statistics, 2007). According to a Kaiser Family Foundation report (2005) that studied the lives of 8-18 year olds labeled "Generation M: Media," "children and teens are spending an increasing amount of time using 'new media' like computers, the Internet and video games, without cutting back on the time they spend with 'old' media like TV, print and music" (2005). The study found that the total amount of recreational media content usage for young people on computers increased daily from 27 minutes to over one hour. In addition, the report discovered that roughly one third of children use multiple media simultaneously, leading to multitasking between online activities and other media consumption.

As for the increasing popularity of online social networking, Nielsen / NetRatings reports that the top 10 social networking sites collectively grew 47 percent to 68.8 million in April 2006, reaching 45 percent of active Web users (NetRatings, Inc., 2006). With Rupert Murdoch's acquisition of Myspace.com for \$580 million in July of 2005, advertisers and marketers have increased their grasp over younger audiences by offering a convergence of media products online (BBC News). Combined with the growing presence of youths on the video-sharing

website YouTube, the time has come for developing a comprehensive model for online literacy.

In documenting the obstacles to the development of online media education in the United States, Kubey (1998) contends that there is a lack of support from parents, as well as teachers and administrators, who want their children to be 'computer literate' rather than 'media literate.' Traditionally, computer literacy has referred to one's technological proficiencies using particular software or hardware components or computer applications. Computer literacy prioritizes skills-based learning that emphasizes the technological medium over the process and objective of learning. Obtaining computer skills has often been associated with upward mobility within the realm of commerce and business. As Kubey explains, 'parents believe that computer expertise can equal a leg up in the job market' (1998: 60). While workplace concerns have long dominated American education, the merging of computer, information, and media literacy skills is long overdue. With the proliferation of computer-mediated information technologies in schools, students are faced with the challenge of learning not only how to acquire useful information through new technologies, but more importantly, how to critically analyze and evaluate information once it's been retrieved and

deciphered. This critical learning process is only becoming more arduous with the proliferation of information forms and sources.

An online media literacy approach would help foster critical learning by asking the following:

1. What does it mean to be media literate in the information age?
2. How can information and online-literacy be initiated?
3. How can the learning process be transformed?
4. What are the benefits and drawbacks of globalization?
5. What about privacy issues online?
6. What impact will commercialization and consolidation of the Internet have on information and access?
7. How can the Internet serve democratic goals?

With these questions in mind, a curriculum framework for online media literacy can be built using multiple literacies (Meyrowitz, 1998)—*media content* literacy, *media grammar* literacy, and *medium* literacy. Teachers can 'help students become critical consumers of information through an experiential learning process that teaches both "about" and "through" media' (Quesada & Lockwood Summers, 1998: 30). This requires teaching methods that encourage group dialogue through the use of questioning strategies aimed at encouraging the higher levels of cognitive learning outlined in Bloom's taxonomy. In order for critical autonomy or independent critical thinking to be attained, students must be motivated to learn for the sake of personal empowerment, rather than acquisition of marketable skills, through analysis, reflection, synthesis, and evaluation of media. Although Bloom developed these cognitive measures well before the wide-

spread use of computer and the Internet in education, their relevancy remains. As Gilster (1997) explains, digital literacy requires 'the ability to read with meaning and to understand' (33) as it applies to the Internet. Just as Bloom established measures for learning competencies that enable learners to make informed judgments after a series of cognitive development processes, Gilster believes that cyber-cognition demands similar measures. He explains that making informed decisions about what is found online requires knowledge acquisition by developing and applying online search skills; that analysis and synthesis come from assembling knowledge 'from diverse sources' using Internet tools; and that critical thinking must be developed 'using the model of the electronic word—hypertext and hypermedia' (1997: 2-3).

## MEDIA CONTENT LITERACY

One of the most important elements of Internet access involves not only how much information we can acquire, but the quality of the information we receive. When using the Internet, three essential questions need asking in order to evaluate what we stand to gain with this new technology: 1) how well can we make discerning judgments about what we receive? 2) what ideas and issues are available on the Internet? and 3) what absences and silences exist, in other words, what is *not* to be found? Unfortunately, while there is accurate and important information accessible through the Internet, there is also much which is inappropriate for learning

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purposes. This is especially troubling for teachers. Crossman (1998) explains:

[many] teachers whose students use the Web are concerned about the question of authenticity and reliability of information on the Internet in general and the Web in particular. Even the most casual evening of Web surfing reveals incredible amounts of trivia, misinformation, bad manners, hostility, stupidity, and other vagaries of humankind. (31)

Using Meyrowitz's (1998) media-as-conduits metaphor, Internet *content* literacy carefully considers the value and reliability of information acquired online. While few education models apply content literacy to the Internet, library media specialists have been in the forefront of devising content literacy skills enabling students to question the veracity of the information they receive online. Drawing from Grassian's UCLA College Library online resource (2000), there are many analytical questions to be asked when thinking critically about discipline-based Internet resources. The majority of these questions center on content and evaluation.

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*The information source.* One of the first evaluative questions for web resources investigates the information provider or source. By asking who the originator, creator, or author of a website (or email) is, students can determine if a website represents a group, an organization, an institution, a corporation, or a governmental body. At the root of this

question are concerns regarding the reliability and representativeness of the information acquired. Teachers would want their students to look at the URL address provided on the home or front page of the site in order to get clues as to whether the information comes from a trustworthy institution, such as a school or university, or whether it is from an anonymous individual whose credibility would need verification. Notwithstanding, given the conflation between and among URL addresses, a more instructive approach to discovering the legitimacy of the information source is to examine the "About Us" or "Company Info" pages that appear on nearly every organizational, educational, governmental or corporate site. This approach allows for an assessment of a website's core mission, individual spokespeople affiliated with the site/organization, press releases, annual reports, multiple levels of sponsorship, and even ulterior motives for the site's existence, which may affect or compromise web content. Likewise, it would be advisable for students to verify the qualifications of content authors, sponsors, or supporters. Students would want to find out if the website is officially or unofficially endorsed or sponsored by particular groups, organizations, institutions, and the like, as this again impacts on the credibility of the information acquired.

*Influences on content.* The next set of evaluative questions aims to discover if the website or email describes or provides the results of research or scholarly effort. In terms of basic research skills, it makes sense for teachers to instill in their students a curiosity regarding whether or not there are sufficient references provided to other works to document hypotheses, claims, or assertions. By asking if there is enough information to properly cite the document, students can decide if the information they have found is appropriate for a research report. Students would want to know if the website / email combines educational, research,

and scholarly information with commercial or non-commercial product or service marketing, as this affects the underlying goals or objectives of the site. Other critical measures for assessing content accuracy include an analysis of grammar, spelling and typos, page design, research methods, sources and statistics, and balance and depth.

By inquiring into the economic or political influences of Internet content, students should question whether the ratio of useful information to superfluous information is adequate. They would want to pay attention to the amount of advertising, as well as unrelated graphics or links, as these factors necessarily impact the content. For instance, if information on oral hygiene is provided by the manufacturer of a toothpaste seeking to influence brand-name loyalty, students should be more skeptical of the claims being made within the site. Other profit motives include fees for the use of access to any of the information provided at a site. Naturally, students would want to determine whether such fees are warranted or whether similar information could be found for free on other sites, or through other research tools. In terms of politics, students would want to discover the motives, values, and ideas influencing the content so that they can better sort through and evaluate the claims and assertions projected on a website. Additional measures of objectivity include measurable objective standards, verifiable facts, and careful consideration of biases, gimmicks, sponsors and advertisements.

Ideally, the purpose of a website should be clearly indicated. Since this is not always the case, further investigation through the use of evaluative questions helps students better determine the motivations of the content providers.

*Coverage and Timeliness.* In addition to analyzing political and economic influences on content,

online content literacy requires evaluating the scope and depth of the information, the legitimacy of hyperlinks, supportive evidence, comprehensiveness, as well as comparing and contrasting online and traditional sources. Finally, the timeliness of online information would need to be fathomed so that students could discern whether or not the study or research on the website/email is up to date. If the date of the information is not easily located within the content, students could look for the last update to the page or to the site, at the bottom of the front or homepage. This enables students to judge the accuracy of the information presented based on their knowledge of recent scholarship, discoveries, or perspectives that would affect previous findings.

BY INQUIRING INTO THE ECONOMIC OR POLITICAL INFLUENCES OF INTERNET CONTENT, STUDENTS SHOULD QUESTION WHETHER THE RATIO OF USEFUL INFORMATION TO SUPERFLUOUS INFORMATION IS ADEQUATE.

*Limits to Critical Literacy Initiatives.* While the aforementioned approaches to media content literacy offer a model toward critical thinking online, there are limits to be aware of. According to Fabos (2004), webpage evaluation practices are not wholly effective. First, students are not bothering to use the webpage evaluation skills educators are teaching. Second, students continue to rely on questionable information for their fact-supported, objective-style reports. Identifying who is responsible for a webpage and verifying credentials is seen as too time-consuming for today's youth, thereby underscoring the need to cultivate such habits early on with a comprehensive educational model for online literacy. Many students are often willing to accept information without questioning the source. Third, students



are nervous about evaluating webpages when they are unfamiliar with the topic they are investigating. Without prior knowledge of the subject they are researching, they feel ill equipped to identify what the most factual information is. This finding indicates the need to devise an approach that includes traditional print sources initially, rather than relying upon online-only research. Finally, Fabos forewarns that many webpages do their best to seem as unbiased as possible. All organizations and corporations today use the web, in part, as a tool for public relations and have adopted a 'credibility aesthetic' to appear legitimate to any reader. Therefore, media content literacy must go hand-in-hand with visual literacy.

are worthy of perusal and which ones should be avoided. Librarians and teachers will still need to offer students online resource sites known as the 'deep web' that help students find educational sites and portals that are reliable and useful.

## MEDIA GRAMMAR LITERACY

While there is nothing novel in applying critical evaluative questions online, the critical study and utilization of the Internet is distinctive in terms of its media grammar and form. For this reason, media literacy in cyberspace must go beyond online content literacy by addressing the peculiarities of the Internet as a communication technology. Media *grammar* literacy for the Internet requires an understanding of the production elements used to alter people's understanding of messages communicated electronically. As such, teachers would want their students to learn graphic design principles so that they better understand how web pages are created or infused with carefully crafted signifiers. Vibrant colors, large or unusual fonts, flashing text, striking visuals, and music, used to draw or divert attention, need to be decoded so that students ascertain the function, intention, or goal served by the graphics, icons, and design elements.

Consequently, the basic elements of graphic design, usually reserved for art or vocational curricula, need to be integrated across the curriculum so that students can better comprehend how various production elements work to signify or connote particular meanings in cyberspace. Since the Internet is necessarily non-linear in form, there are many design elements used to feature certain areas, visuals, or links. Whether these elements are used for business, educational, or civic means, students would want to evaluate the creativity and effectiveness involved in the structural design of the message by analyzing all of the rich media elements used to comprise cyber-grammar, namely

NEVERTHELESS, STUDENTS MUST FIRST FIGURE OUT HOW TO FIND THE TYPE OF INFORMATION THEY ARE LOOKING FOR, WHICH REQUIRES SKILLS IN CONDUCTING EFFECTIVE ONLINE EXCURSIONS USING VARIOUS SEARCH ENGINES.

As Meyrowitz explains, content literacy skills are not exclusive to any media per se, but are easily applicable from one medium to another. Students can employ these same evaluative questions in studying books, newspapers, magazines, television programs, and other texts. Certainly, Internet content presents some unconventional circumstances that set it apart from other research tools. Vast amounts of information are available on any given topic, allowing students more flexibility in conducting research than a school library might offer. Nevertheless, students must first figure out how to find the type of information they are looking for, which requires skills in conducting effective online excursions using various search engines. Whereas students can always go to a librarian or teacher for search tips or strategies, it is not always easy to figure out what Internet sites



words, pictures, sounds, videos, animation, hyper-media, and hyper-text. This includes evaluating the commercial colonization of the medium by examining hyper-linked advertisement banners, rollover and buttons, skyscraper ads found in the margins, cyber-domains and branding, and the increasing prevalence of adver-gaming.

As a component of media *grammar* literacy, visual literacy theory has been used to encourage students to produce and interpret *visual* messages. In *Visual Messages: Integrating Imagery into Instruction*, Conside and Haley (1992) explain that like traditional literacy, visual literacy embraces what might be termed a reading and writing component (15). Students can be taught to recognize, read, recall, and comprehend visual messages. Accordingly, students who understand the design and composition of visual messages can better communicate through visual means. With the rapid increase in student-designed web pages, design elements converged around Internet technology are becoming more necessary. By using the components of visual literacy that have been applied to audio, moving images, and still graphics, students can better think *about* and *through* the images and multi-sensory components of the Internet. Accordingly, students should be encouraged to use learned cyber-grammar to produce visual messages online as well as interpret them, including webpages, blogs, wikis, bulletin boards and social networking sites.

## MEDIUM LITERACY

Media grammar literacy, or visual literacy, includes an understanding of the *medium* and the message, the form as well as the content. In terms of the Internet, *medium literacy* would require students to examine the variables previously described in Meyrowitz's (1998) multiple literacies model, and those extrapolated from Meyrowitz's sample medium variables. In particular, Internet

technology impacts: 1) the multi-sensory types of information conveyed, as it conveys messages through visual, aural, and textual means, 2) the uni/bi/multi-directionality of the communication which is affected by Internet postings, email correspondence between individuals, and chat-room discussions between two or more people, and 3) the speed and degree of immediacy in encoding, dissemination, and decoding, which are altered by the Internet's instantaneous message transmission and its ability to bring otherwise disjointed individuals or groups together in non-face-to-face encounters. One of the most important applications of medium theory would lead students to examine how message variables, both content and visual, are uniquely acquired and represented online. Students must learn to question whether the

MEDIA GRAMMAR LITERACY, OR VISUAL LITERACY, INCLUDES AN UNDERSTANDING OF THE MEDIUM AND THE MESSAGE, THE FORM AS WELL AS THE CONTENT.

information they find is unique to the Internet or is available through print and other non-Internet resources. This inquiry leads students to understand the potential of the Internet as a decentralized form of technology, since it greatly increases the amount of information and perspectives (both dominant and non-dominant) available on any given topic. This presents creative opportunities for students to find ideas and messages that infrequently unfold in mainstream media. Moreover, through user-controlled hypertext or hypermedia links, students can 'interactively' determine what informational course they want to navigate. Educational prospects such as these can only unfold in the critical thinking classroom whereby students are encouraged to discover, compare and contrast, and critique the messages communicated through computer information technology.

## CONCLUSION

Media literacy scholar Len Masterman's (1985) explanation of critical autonomy, to 'develop in pupils enough self-confidence and critical maturity to be able to apply critical judgments to media texts which they will encounter in their future,' (p. 24) should be applied to new technologies, particularly the Internet where today's youth are getting increasing amounts of information and entertainment. The need for integrating critical literacy skills must go hand-in-hand with information literacy and media literacy so that students are properly trained for global electronic travel. This means going beyond simplistic approaches centered on technology for technology's sake through technical skills training. Through multiple literacies, students are provided with a learning model of awareness, analysis, reflection, action, as it pertains to media content literacy, media grammar literacy and medium literacy. This combined approach can lead to better comprehension through critical thinking and informed judgments. In order to keep pace with the emergence on new computer-mediated communications technology, educators and librarians will have to work together to develop online media literacy initiatives so that students can become discerners of the types of information they need. In addition to content literacy or what is known as 'information literacy,' the goals for taking media literacy to the Internet must go beyond the critical evaluation and use of information to include an analysis and understanding of the impact of political and economic forces that drive and control much of the Internet. Within a media literacy online model, the issues of ownership, profit, control, commercialism, marketing, public relations, branding, tracking, and related areas are essential to helping students formulate

constructive ideas for action that will impact upon their own Internet choices and surfing habits (Frechette, 2002). Finally, students need to understand how the medium alters communication and allows for non-dominant alternative perspectives to emerge electronically. This will not only allow students to become more cognizant and savvy Internet users, but it will allow them to become effective and responsible online media producers and global citizens. \*

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# GLS 3.0

## AN INTERVIEW WITH GAMES, LEARNING, & SOCIETY CONFERENCE CHAIR, CONSTANCE STEINKUEHLER

BY KAREN AMBROSH

**M**adison, Wisconsin is home to Games, Learning, and Society, an innovative collection of researchers, developers, government and industry leaders who investigate how gaming transforms learning and impacts culture. This past July, GLS held their 3rd annual conference at the Monona Terrace in Madison with participants from a broad range of fields and professions, coming together to explore significant issues around the social, cultural, and educational roles of games and simulations. After attending the conference, Karen Ambrosch interviewed Constance Steinkuehler about the goals of GLS and the connections to media literacy.

**K.A.** Why is it important for our society to explore the impact of gaming on culture and learning?

**C.S.** Games and other forms of pop culture are ubiquitous to the youth generation (often quite aptly called the Digital Generation), yet we have only just begun research on their impact on cognition, learning, education and culture and society more broadly. From this perspective, Hillary Clinton is right: They are the one big experiment mainstream media is running on our kids, and we ought to find out more about them. Now, Hillary had a much more pessimistic and dire view of games and other forms of productive digital media play than we do. But, then, we have a lot more experience with games and pop culture than Hillary might. From the outside, games seem a mere passive or “torpid” (Solomon, from NYT) form of consumption. But this couldn’t be further from the truth. When

you empirically examine what gamers do when they game, it turns out they are actively – and, often, critically – transforming media into fodder for their own meaning making. The real interest in games is simple: They are on the leading edge (and therefore a very useful example) of contemporary media “consumption” patterns, which is thoroughly participatory (Jenkins, Papert), thoroughly productive (and not merely consumptive), and, for many, transformative in their everyday lives.

**K.A.** What were your goals for this conference?

**C.S.** In essence, the GLS conference is really about building an interdisciplinary field. In our view, we feel that such a field cannot succeed without conversation, not just among academics who study games, but also the designers who create them, as well as teachers, administrators, and even the gamers themselves. In three years, games have gone from a somewhat fringe topic in education to a very popular line of inquiry. And educational games (or so called “Edutainment”) have gone from a bad word in the industry to a perfectly viable target market. Certainly much broader forces are at work in the rise of games and learning as a serious topic, but to the extent that our conference has helped forward and shape this agenda, it has been a genuine success. One exciting contribution I believe we’ve made is connecting like-interested and like-minded folks with one another in order to work together on specific projects of various sorts. This includes small indie-shop



UPPER LEFT: Kurt Squire, UW-Madison Professor and Presenter at GLS  
 LOWER LEFT: Constance Steinkuehler leading conference fireside chat  
 UPPER RIGHT: Gaming controllers available in the conference "dorm room" space  
 LOWER RIGHT: Henry Jenkins leading conference fireside chat

designers, academics in fields as diverse as linguistics to education, funders of various sorts (both governmental and private foundations), practicing teachers who can help implement and test game-based activities, etc. This is our greatest contribution, I believe, and my hunch is that it's also a large reason for our popularity.

**K.A. Do you feel you achieved your goals?**

**G.S.** When we first began the conference, we had no intention of making it an annual event. However, the interest and demand has been incredible, with a waiting list each year to get in and a reputation out on the street now that we are the top games-related conference going. So, we decided to do it annually. We've opted to keep the event small in order to facilitate conversation, but we've had requests to expand it to three days rather than two and increase the number of people who are allowed in. We're weighing these options this year to see what, if anything we might do without com-

promising the quality of the conference overall. So, have we achieved our goals? If the criteria for success are building a field by fostering conversations across disciplinary and academic/industry/practitioner boundaries, then I'd have to say yes: we have achieved our goals. At least, the initial ones. There's always room for improvement, however, and every year we try to improve upon what came the year before it.

**K.A. What is missing yet from this important exchange? How do you hope to grow this exchange in the future?**

**G.S.** Broader participation is always a goal, and a difficult one given that our acceptance rate for program content is so low (from 10-30%, which makes us harder to get a paper into than most top tiered journals). We're considering expanding the size of the event in order to accomplish this, but we also don't want to give up the fact





UPPER AND LOWER LEFT: Conference dorm room equipped for gaming and relaxing  
 UPPER MIDDLE: MIT Professor Henry Jenkins  
 UPPER RIGHT: Constance Steinkuehler  
 LOWER RIGHT: Prof. James Gee and participants exploring a game in a Chat 'n Frag Session

that our smaller size makes the event more intimate, and therefore more successful at fostering genuine conversation. This past summer we were able to include many more teachers, thanks to generous donations from our sponsors which let us make the event, including hotels and such, free for teachers. And too, we actively recruited youth into the program in an effort to let gamers & digital natives speak for themselves - and not just be talked about. We'd like to continue making progress along these lines. And we continue to work for better gender representation overall.

**K.A. How does your work in games and learning intersect with media literacy education?**

**G.S.** Much of the work on games & learning, particularly the projects currently funded by the MacArthur

Foundation, have helped us augment and improve our definitions of media literacy to include not just critical consumption, but also – and as crucially – critical production as well. New, cheap tools for production and distribution such as iMovie and the Internet have put media production into the hands of the amateur (see ProAm Revolution). Authentic participation in contemporary digital culture now demands production of one's own content, though not only the mash up of what mainstream media provides, such as the spoof Chevy ads found on You Tube, but also the creation of whole new content and genres of content from scratch, such as Red vs. Blue machinima. The focus on and study of such communities of production is the lasting contribution that the study of games, learning & society will make to the field of media literacy more broadly.

Go to [www.gameslearningsociety.org](http://www.gameslearningsociety.org) for information about the GLS people, research, and conference details. \*

INTRODUCING

# GLOBALORIA

TOOLS FOR YOUNG PEOPLE TO CREATE AND SHARE MEDIA  
Facilitating the New Social Media Technology Literacy

REVIEWED BY MARTIN RAYALA, PH.D.

Imagine a learning program where students know as much as (or more than) their teachers, learn alongside their teachers, are encouraged to look at each others' work, and must spend time online talking to friends (on a wiki), exchanging ideas (on a blog), creating profiles (like in Facebook), designing and playing web-games. Sound crazy? Not if your goal is to prepare youth from developing communities for 21st Century jobs, and for life!

*Globaloria* is the name of a set of tools to help young people create and share media messages developed by Idit Harel Caperton and the folks at the World Wide Workshop Foundation ([www.worldwideworkshop.org](http://www.worldwideworkshop.org)) The Globaloria program uses virtual educationally-oriented social networks, comprised of programmable websites and related Wikis and Blogs, to teach high-potential youth how to take control

of their new-media world and become leaders in their communities using technology. This is a technology program for advanced beginners to advanced intermediates. Participants are trained to become makers of online games, simulations and wiki media, while simultaneously learning how to self-learn, create and collaborate in a virtual environment. In focusing their games and simulations on a particular theme or issue—such as HIV, climate, science, mathematics, social studies or peace—participants also have the opportunity to deepen their understanding of a curricular area or pressing social issue.

Using an architecture of participation with open-source technology, easy-to-master administration tools, and 24/7 support, the Globaloria websites and networks can be customized for diverse constituencies. Globaloria's set of tools also

enables the transfer of ownership to partner communities—making it both sustainable and scalable, and a flexible ICT solution for development focused institutions.

## HOW THE GLOBALORIA PROGRAM WORKS

Globaloria is a digital learning program with several satellite social networks (called MyGlobalLife.org or MyScienceLife.org), where young people learn how to use the social web, master media technology design and the latest Web 2.0 literacy through making interactive games with educational and social purpose. By creating a game for



others about a topic (such as mathematics, HIV, global climate, science, or about peace), participants gain a deep understanding of that topic, and they also learn Flash animation and programming along the way. By participating in a global social network with a purpose, they experience facets of entrepreneurship, leadership, and globalization that will make them literate and prepare them to be leaders in today's "Information-Age" and "Innovation-Economy" careers.

## PREPARING FOR THE 1:1 FUTURE

In partnership with the One Laptop per Child Association (OLPC), the Foundation is developing MaMaMedia/OLPC ([www.worldwideworkshop.org/olpcwiki](http://www.worldwideworkshop.org/olpcwiki))—

A multilingual creative activity center that leverages the XO-SUGAR operating system and technological features to prepare children to become users—and makers—of media technology. MaMaMedia/OLPC was launched in 2007 in the first OLPC trial countries (Argentina, Brazil, Libya, Nigeria, Peru, Rwanda, Thailand, and Uruguay).

"As the OLPC movement grows over time," says Idit Caperton, "and more laptops get into the hands of children and educators in the developing world, we must also ensure that there are skilled people out there in these countries, who can lead the way in software development. They must prepare for this 1:1 future, and learn how to cre-

ate open and flexible educational social networks for their own use, program social-issues games and Sims on topics relevant to their countries and villages; they must practice how to actively participate in OLPC's open source, wiki-based communities, and collaborate virtually with talent from around the world—to enhance the web experiences and learning tools for OLPC users. Our hope is that Globaloria alumni will be fully-literate and able to lead that global digital future in their own developing communities."

With its open platforms, social networks, and innovative curriculum, Globaloria is taking a new step towards learning and experiencing a crucial set of contemporary media literacies.



## MaMaMedia/OLPC

Empowering children worldwide to learn and collaborate with their OLPC XO Laptops

"LIKE WIKIPEDIA, GOOGLE, AND OTHER RECENT EXAMPLES, GLOBALORIA HAS THE POTENTIAL TO CONNECT PEOPLE AND COMPUTERS SO THAT COLLECTIVELY THEY ACT MORE INTELLIGENTLY THAN ANY PEOPLE, GROUPS, OR COMPUTERS HAVE EVER DONE BEFORE."—THOMAS MALONE

MIT Sloan School of Management, World Wide Workshop Advisory Board

"WE BUILD SOCIAL NETWORKS FOR SOCIAL RESPONSIBILITY, DESIGNED TO BRIDGE THE PARTICIPATION GAP. OUR FOUNDATION IS NOT ABOUT US PUBLISHING MATERIAL THAT WE THINK IS GOOD FOR UNDERSERVED YOUTH IN DEVELOPING COMMUNITIES; RATHER, WE COMMIT OURSELVES TO GIVE AWAY OUR TECHNICAL KNOWLEDGE AND SHARE OUR EXPERTISE. WE LISTEN TO EACH OTHER, PARTICIPATE AND LEARN TOGETHER IN AN OPEN VIRTUAL NETWORK—BECAUSE ALL OF US ARE SMARTER THAN JUST ONE OF US!"—IDIT HAREL CAPERTON

The World Wide Workshop Foundation is an entrepreneurial education organization 501(c)3 dedicated to conceptualizing and developing advanced applications of social media technology to enhance new-media literacy, learning, creativity, and understanding among youth and young adults in developing communities around the world. For questions about Globaloria networks or to participate in Research2.0 and theory-building efforts about the Globaloria Networks, contact: [info@worldwideworkshop.org](mailto:info@worldwideworkshop.org).



## Playing to Learn

### VIDEO GAMES IN THE CLASSROOM

BY DAVID HUTCHISON  
TEACHERS IDEAS PRESS, 2007

*Reviewed by Frank Baker*

**Q**uick: name five video games. Can you do it? I can't. Video games are not part of my media environment. The few games I can recall are as a result of some recent news story about their violent or sexual content, or some state's effort to restrict youth access. Are all games bad—of course not. Why doesn't the mainstream media report more on the potential uses of video gaming in instruction? (Well, that's an essay for another time.)

Can and should video games be considered as instructional tools, just as books, magazines, video and film are today? Yes, says "Playing to Learn" author David Hutchison, Associate Education Professor at Brock University. In this new text, published by Teacher Ideas Press, he presents a number of concrete ideas for integrating video games into English, Social Studies, Math, Science, Health, PE and more.

Writing the foreword to this text, James Paul Gee (author of *What Video Games Have to Teach Us About Learning and Literacy*) acknowledges that video games won't replace reading or writing. At the same time, he says, fans of video games are creating blogs about the topic and becoming active participants in fan based web sites.

Video games are a cultural phenomenon: one in which all educators should become more familiar. Reading "Playing To Learn" will certainly help all educators get up-to-speed in this exploding youth media culture. Interspersed with activity suggestions and lesson plan ideas, Hutchison has wisely included several discussion articles.

(This is a trend that I am in favor of: giving young people some current event readings and resources around a topic. Unfortunately, many of today's textbooks don't provide current readings nor corresponding critical thinking questions.)

In a discussion of the video game "Bully," several questions are posed for which the teacher might engage her students in a discussion. Another article raises a series of questions regarding video game violence and its reported impact on player attitudes and behaviors.

### CONTENT RELATED TO MEDIA LITERACY

Classroom teachers will find a host of ideas and suggestions for how video games/media literacy might be integrated into instruction. Among them:

**Body Image:** students discuss the relationship between body image and the physiques of both male and female video game characters

**Hype/Fact vs. Opinion:** students compare and contrast previews and reviews of a video game, looking for evidence of hype and fact vs. opinion

**Foley Effects:** students replace the sound effects in a game with those they have captured in and around school and home

**Historical Place Analysis:** students compare and contrast historically accurate video game environments with photos and descriptions of the same real-world settings

**Newscast Production:** after studying the structure of conventional newscasts, students apply what they've learned to creating a live newscast of their own that reports on the video games news of the day

**Race Relations:** students examine how different cultural groups are represented (or misrepresented) in video games



**Video Game Review:** students write a review of a game they are currently playing.

*Playing To Learn* is a wonderful new addition to the world of media literacy and youth media culture. Because it is aimed at the elementary-12th grade audience, it would be a welcome addition to any school library media center collection. I wouldn't be surprised to see both students AND teachers checking this one out. \*

# Recent Media Education Anthologies: Moving Beyond Media 101

## *Four Resources* Reviewed by Barry Duncan

In the last year, several anthologies have been published on media literacy/education, both theoretical and practical. All of these have made important contributions to our evolving pedagogy; fortunately, most of them go beyond introductory perspectives. Often these studies critique the limitations of many current practices. (*Hey, these media lit lessons really worked in my classroom, that's all you need to know!*)

With the maturing of media education in North America, what are needed now are discussions, debates and carefully organized think tanks. Collectively, these anthologies offer over 70 essays. What a wonderful catalyst to re-think our goals and practices. Why not have groups of media educators read and respond to a good cross section of these provocative essays?

Typical topics include critiques of student media productions; bridging the gap between media effects and cultural studies; media lit and disadvantaged youth; negotiating meaning of rap music with a grade eight class, debating the goals of media ed sparring with the influential cultural studies establishment, e.g. David Buckingham, Neil Postman and Len Masterman.

## **Media Literacy, A Reader**

EDITORS: D. MACEDO AND  
SHIRLEY STEINBERG  
(PETER LANG, NEW YORK, 2007)

At 730 pages and 57 chapters, this is indeed a weighty tome. But it is worth it. The book is organized to lead the reader

through theories of media literacy, to the actual practice of doing media literacy, and finally the teaching of media literacy reading media. Part Three is dedicated to those who teach media and incorporate it into their curricula. Regrettably, material on elementary school is absent.

Obviously teachers will read this anthology selectively. As media literacy gains more depth in North America, books such as this one will help us reconcile both theory and practice, providing our work with the necessary critical rigor it deserves.

## **Rethinking Media Education: Critical Pedagogy and Identity Politics**

EDITORS: ANITA NOWAK, SUE ABEL,  
AND KAREN ROSS  
(HAMPTON PRESS, 2007)

This collection of essays discusses and analyzes the efficacy of media education around the world, paying particular attention to whether and how it improves the critical thinking skills of students. Many books on the market describe the importance of media education and include suggestions for pedagogy, but few evaluate its effectiveness.

## **Media Education and Educating the Media**

OUR SCHOOLS, OURSELVES,  
VOLUME 17, NUMBER 1,  
(FALL 2007, 205 PAGES)

Edited by Kirsten Kozolanka, the 22 essays range from "Critical pedagogy for social justice" to "Creating Media Savvy Students" The essays are generally short and

are quite readable. Your \$12.00 will go a long way. While most of the selections were written by Canadians, the material will be welcome elsewhere.

## **The Popular Media, Education and Resistance**

CANADIAN JOURNAL OF EDUCATION,  
VOLUME 29, NUMBER 1

(FROM CSSE #204-260 DALHOUSIE ST.  
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AVAILABLE ON-LINE, \$25.00

Canadian educators and particularly those in Ontario have led the way in North America in establishing a credible base for media education. However, looking carefully at the contending conceptual models in circulation we can see the desperate need for original research in this field. The editors of this issue *Canadian Journal of Education*, Michelle Stack and Deirdra Kelly are to be commended for editing such a timely theme issue and contributing to the debate.

The collection is divided into four sections. Part One focuses on mainstream news especially as it represents youth. Part Two explores critical media literacy. Part Three looks at media production and marginalized youth and finally, essays on how youth engages with popular culture. Throughout the articles, there is a nice balance between theory and practice.

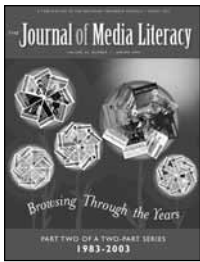
BARRY DUNCAN is the past president  
& founding president of the Toronto based  
ASSOCIATION FOR MEDIA LITERACY.

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# Do you have these media literacy resources?

If you missed these *Journal of Media Literacy* and *Telemedium* issues, they and many others are still available. Each issue of the indispensable archive of media literacy contains useful information, usually targeting a pertinent topic.

Select from the choices below and fill out the order form on the opposite page.



**BROWSING THROUGH THE YEARS: PART 2** [v54, n1, 2007, 64 pgs]

Continues the retrospective from Part I: 50 years of Media Literacy as seen through the chronicles of the American Council for Better Broadcasts/National Telemedia Council; From early ACBB newsletters to the development of *Telemedium* and the *Journal of Media Literacy* (1983–2003).



**THE NEXT GENERATION IN MEDIA LITERACY Unsolved Issues** [v51, n1, 2004, 52 pgs]

Edited by Martin Rayala and Marieli Rowe. Addresses key media literacy issues from the 2003 International Video Conference: New Media & Digital Culture; Testing the Limits of Democracy; Global Media Education; and Media Literacy in Theory & Practice.



**CHALLENGES AND OPPORTUNITIES Integrating Media Literacy into the English Classroom** [v53, n2, 2006, 88 pgs]

Karen Ambrosch & Marieli Rowe, Editors. Featured authors include Donna Alvermann, Neil Andersen, David Considine, Barry Duncan, John Golden, Renée Hobbs, Jeff Share, Allen Webb, and others.



**TUNING INTO DEMOCRACY Citizenship, Media & Media Literacy** [v51, n2, 2004, 52 pgs]

Guest edited by David Considine and Frank Baker. With feature articles by Barry Duncan, David Buckingham, Robert McChesney. Also includes Part II (of three) of *Emerging Authors: New Voices in Media Literacy*.



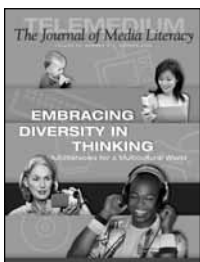
**BROWSING THROUGH THE YEARS: PART I** [v53, n1, 2006, 28 pgs]

A retrospective of the first thirty years years of Media Literacy as seen through the chronicles of the American Council for Better Broadcasts/National Telemedia Council; From early ACBB newsletters to the development of *Telemedium* and the *Journal of Media Literacy* (1953–1983).



**VISIONS/REVISIONS Moving Forward with Media Education** [NTC 2003, book, 7"×9" paperback, 182 pgs]

Special 50th Anniversary publication, anthology of top authors from around the world, a virtual textbook of the key issues and ideas shaping media literacy education for the 21st Century.



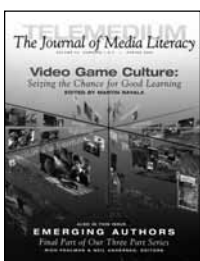
**EMBRACING DIVERSITY IN THINKING Multiliteracies for a Multicultural World** [v52, n3, 2005, 24 pgs]

Edited by Karen Ambrosch. Features articles by David Buckingham, Carlos Cortés, Alan November, Kenneth Smith, Ronald Takaki.



**50 YEARS Toward a Media Wise Society** [2003, 12 pgs]

A brief publication which chronicles NTC's 50th Anniversary events including the International Media Literacy Forum and a statement of NTC's mission and philosophy.



**VIDEO GAME CULTURE Seizing the Chance for Good Learning** [v52, n1&2, 2005, 104 pgs]

Edited by Martin Rayala. Opens the new educational connection between game culture and Media Literacy. Ten major authors in the field include James Paul Gee, Henry Jenkins, Idit Caperton, and Kurt Squire. Also includes Part III (of three) of *Emerging Authors: New Voices in Media Literacy*.



**MEDIA LITERACY AND THE ARTS Sounds, Images, Movement, Objects, Spaces, Experiences** [v49/50, n1, 2003, 98 pgs]

Edited by Dr. Martin Rayala. A visionary, 100-page issue, building the innovative bridge between Media Literacy and the Arts. Five parts, with twenty-three authors.

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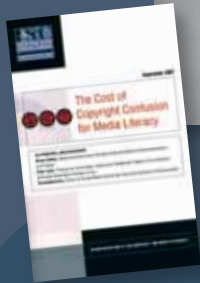
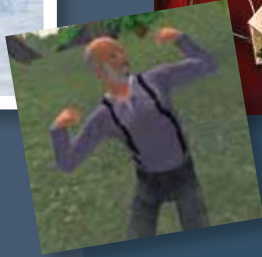
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