CONNECT!ONS Med!aLit moments

In This Issue…

New Dimensions of Privacy in an Era of Big Data

When it comes to online privacy, most of us think of discrete pieces of sensitive information. In past issues of *Connections*, we've treated personal data in this way. We've written about the need for media literacy education to raise awareness about the ways in which online advertisers use individual pieces of information to tailor advertisements to us, and about personal data management services as an instrument for demanding and receiving compensation for third party access to personal data. Yet this view of personal data is insufficient to the task of comprehending privacy issues in an era of "big data" and, once again, we find ourselves writing about the need to empower media consumers about privacy issues on a whole new level.

One of the telltale signs of this shift is the way in which President Obama defended two NSA intelligence programs which came to light last month as a result of revelations by *The Guardian* and the *Washington Post*. One of the programs involves daily collection of "metadata" on telephone calls made across the U.S. On June 7th, when Obama responded to questions from reporters in California, he declared: "Nobody's listening to telephone calls. . . . what the intelligence community is doing is looking at phone numbers and durations of calls. They are not looking at people's names, and they're not looking at content. But by sifting through this metadata, they may identify potential leads with respect to folks who might engage in terrorism" (Statement by the President, Fairmont Hotel, San Jose, whitehouse.gov). While his explanation assures the audience in clear terms that no one is reaching into the content of private communications, his description of what intelligence agents intend to do with the "metadata" is vague, and not exactly transparent. Why spend time trolling through all this data just to find potential leads? How would they use it to identify people who *might* engage in terrorism? Why wouldn't they use it only for people who are actively planning an attack?

Obama's explanation does little to correct the impression that intelligence agents are "fishing" through personal information for extremely minute clues to terrorist activity; and in fact, many opposed to the program compare it to the "general warrants" which British authorities used to search the homes of American colonists for any useful or incriminating information. Combing through customer data is an infringement of Fourth Amendment rights, but it's not the capture of individual pieces of data which is of greatest concern.

At a time when storage is plentiful and retrieval more easily managed, both public and private sectors are turning their attention to data analysis. With continual daily analysis, telephone metadata—especially mobile metadata--can yield a great deal of personal information, including locations, routines, associations. The data may be "anonymized," but when used in this fashion, it's anything but anonymous. Furthermore, with the use of powerful algorithms, metadata of thousands of customers can reveal a wide range of patterns of interest to security

agencies, including predictions of future behavior (Kakutani, "Watched by the Web: Surveillance is Reborn," *New York Times*, 10 June 2013). Because the program is classified, it's difficult to know what exactly is being done with the information. But the evidence gathered in credible news reports suggests that the Foreign Intelligence Service Act court is paving the way for "big data" analysis. For example, the *Wall Street Journal* reports that the court has justified orders for phone company records with a considerably broadened interpretation of information "relevant" to an authorized investigation (Valentino-DeVries and Gorman, "Secret Court's Redefinition of 'Relevant' Empowered Vast NSA Data-Gathering," 8 July 2013).

In his address at the San Jose Fairmont, President Obama claimed that he welcomed a public debate on balancing privacy concerns with the need to keep the American people safe. This debate is impossible to have when only a few Congressional committees have any substantive information about them, and even these members of Congress have no access to legal opinions being formulated in secret by the FISA court (Savage, "Public Said to Be Misled on Use of the Patriot Act," *New York Times*, 21 September 2011).

More importantly, the President failed to name all the essential questions which need to be debated. While privacy remains a serious consideration, the use of "big data" practices by the federal government generates additional questions: How will public and private entities use personalized information—now, and in the future? What say will citizens have in the way that data is used? How will they be characterized or represented through it? What power will citizens have to represent themselves?

In this issue of *Connections*, we explore the uneven power relationships between consumers, corporations and government bodies in an age of big data. We draw on Viktor Mayer-Schönberger and Kenneth Cukier's new book *Big Data: A Revolution That Will Transform How We Live, Work and Think* and Cullen Hoban's newly released film "Terms and Conditions May Apply" to illustrate the significance of those developments and to draw out their implications. In our resources section, we offer an article on the data-gathering capabilities of Microsoft's new Xbox gaming platform and the purposes for which this data is collected. Our theme, research and resource articles all point to awareness of changes in our media landscape as an essential first step to empowerment. And, in our MediaLit Moment for this issue, we turn to the world of fantasy—fantasy films, that is--to help your early elementary students identify the roles that children play in them, and to develop awareness that producers are cultivating them as audiences.

Research Highlights

Big Data, Big Brother?

Terms and Conditions May Apply, a documentary film on the decline of online privacy which premiered this week, gives viewers a tour of an Orwellian state whose powers of surveillance the average citizen is only beginning to recognize. In one segment, "*Terms and Conditions* reflects on the irony that the Target corporation was able to successfully predict that a teen customer was pregnant while her father was totally unaware of the fact. How could this be possible? The marketing analytics department had sufficient data processing power to identify 25 products which, when analyzed together, allowed agents to assign customers a "pregnancy prediction" score.

Viktor Mayer-Schönberger and Kenneth Cukier's recently released *Big Data: A Revolution That Will Transform How We Live, Work and Think* helps explain why the changes in data analysis can be so significant. Academic social researchers typically rely on random sampling of small populations to test their hypotheses. By comparison, Target owns records of millions of transactions, and it has the ability to buy more information from data brokers. As a result, the company has a nearly complete "dataset" of the shopping habits of customers. As the authors point out, having a complete set of data allows one to look at details and to "test new hypotheses at many levels of granularity" (33). In other words, corporations are conducting some of the most powerful social science research to date; yet, where academic institutions would make results available to the public, this research is being used to influence behavior and maximize profits.

In the meanwhile, consumers are handing more power to government than they might realize. In the 20th century, two Supreme Court decisions created a "third party doctrine" which limited Fourth Amendment rights against unreasonable search and seizure. In essence, the doctrine holds that a person who surrenders information to a third party consents to the disclosure of such information to others. In 1976, that meant that law enforcement could subpoena personal checks and deposit slips held at a bank without obtaining a warrant from a court. Privacy becomes a much more salient issue when the doctrine is applied in the digital age. As Greg Nojiem, senior counsel at the Center for Democracy and Technology observes, "The principle remains the same—suspects who entrusted their data to AT&T or Capital One in the 1970s are now entrusting their data to Google and Facebook. But the amount of data in the hands of third parties today is potentially much more revealing" (Orr and Nojiem, "The Data Question," *ABA Journal Online*, 1 August 2012).

As *Terms and Conditions May Apply* illustrates, law enforcement agencies have liberally applied the doctrine to social media content, at times with absurd results. In January 2012, Leigh Van Bryan, an Irish tourist, sent a tweet to a friend in advance of his trip to Southern California: "free this week for a quick gossip/prep before I go and destroy America? x". When Van Bryan and his traveling companion Emily Bunting arrived at LAX Customs, an officer

questioned them on the meaning of the tweet. Their explanation that "destroy" was slang for "to get trashed and party" fell on deaf ears, and both were detained for twelve hours on suspicion of planning to commit a crime.

In an interview with CML, *Terms and Conditions* director Cullen Hoback had much to say on the significance of media literacy to the film: "We all live busy lives, and considering the invisible nature of how media is constructed, the intention of design, and how profits are generated, it is not surprising that media literacy is not on the top of people's minds. The problem is that media has transformed from a passive state to a parasitic state. It requires the information of the viewer to thrive. This could be a symbiotic relationship, but since viewers are opting in by simply clicking 'I agree,' they have no bargaining power, and the nature of the trade is lopsided and usurious. Awareness of how this system works is vital to seeing any kind of meaningful change; either on the corporate or governmental levels. . .I hope my documentary helps people to understand how media connects to surveillance. . .If we don't know the nature of the trade that we're making, we won't understand why our Fourth Amendment protections have evaporated before our eyes."

The authors of *Big Data* bring up related issues which need to be addressed. As companies become more adept at using the data at their disposal, they're also likely to use it for new purposes. As data is re-purposed, it's likely to gain in value: "Data's true value is like an iceberg floating on the ocean. Only a tiny part of is visible at first sight, while much of it is hidden beneath the surface. Innovative companies that understand this can extract that hidden value and reap potentially huge benefits" (101-102). Media users will need to demand some control over "secondary uses" of their data, and they'll need to make demands for compensation with a view to accrued value—or the trade they agree to will become ever more lopsided, and users will have even less bargaining power than they do now.

Finally, the authors of *Big Data* argue that prediction is the core function of big data analysis, and that this should be cause for concern. In a growing number of cities across the U.S., including Los Angeles, police departments are using big-data analysis to select streets, groups, and individuals to subject to extra scrutiny, simply because an algorithm pointed to them as more likely to commit a crime. Just as troubling, parole boards in more than half of all U.S. states use predictions founded on data analysis as a factor in deciding whether to release prisoners or keep them incarcerated (152-153). Practices such as these lead to big questions about the society we wish to live in: Will we value the capacity of individuals to make moral choices? Will we be willing to manage risk? Or will we rely on the preventive actions which big data analyses appear to demand?

CML News

Visitors with the Korea Press Foundation (KPF), led by Jieun Lee, with CML staffers Tessa Jolls and Beth Thornton, and Dr. and Mrs. John Zambetti.

KPF delegates with principal William Webb of Ramon C. Cortines High School of the Visual and Performing Arts.

CML hosts Korea Press Foundation

Representatives from the Korea Press Foundation (KPF) along with three award-winning teachers from Seoul traveled to Los Angeles to study media literacy. CML's President Tessa Jolls provided professional development training for the group which also included a visit to Ramon C. Cortines High School of the Visual and Performing Arts in downtown Los Angeles to see media literacy at work in the classroom. Music Center Education Division Vice President Mark Slavkin and Principal William Webb met with the Korean visitors. The delegation concluded the trip by attending the NAMLE conference in Torrance, CA.

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About Us...

The Consortium for Media Literacy addresses the role of global media through the advocacy, research and design of media literacy education for youth, educators and parents. The Consortium focuses on K-12 grade youth and their parents and communities. The research efforts include nutrition and health education, body image/sexuality, safety and responsibility in media by consumers and creators of products. The Consortium is building a body of research, interventions and communication that demonstrate scientifically that media literacy is an effective intervention strategy in addressing critical issues for youth.

Resources for Media Literacy

Watching You Play

The annual Electronic Entertainment Expo (E3), held in Los Angeles from June 9-13, is a game industry convention used to showcase demonstrations of upcoming games from the major publishers and studios. Unlike the networking, recruiting, "how-to" atmosphere of the Game Developer's Conference, E3 focuses purely on the presentation of products to be released later in the year.

Nowhere to be found were demos of "serious games" or talk of how games can better people's lives. Independent developers were relegated to a far-flung corner of the enormous LA Convention Center, except for those who signed exclusivity contracts with Sony or Microsoft, who then got small booths inside their publishers' arenas. Colleges and academics who teach game industry skills were located next to the indie developers, and their booths were filled with students showcasing products, rather than with academics discussing trends or techniques. E3 2013 also showcased the unveiling of the newest generation of video game consoles: Microsoft's Xbox One and Sony's Playstation 4. Xbox One's features provoked controversy, especially since some gamers felt that the new console was less about playing video games than about Microsoft's rivaling Google or Facebook as a portal through which users can be tracked and monitored.

As its name implies, the Xbox One claims to be an all-in-one entertainment center. In addition to video games, the Xbox One features internet browsing capabilities with the Bing search engine (owned by Microsoft), Blu-Ray and DVD player, and popular apps like Netflix, Hulu, Facebook, Twitter, and Skype (also owned by Microsoft). If a cable box is plugged in via a simple cable, the Xbox One also functions as a cable box and TV recorder. The interface will, like its predecessor, display "articles of interest" and recommended content.

Wrapping all these features into one is the new Kinect, a high-quality motion, sound, and video input device. Even when the device is off, the Kinect is always on, listening for user input. Saying the command "Xbox On" will turn the system on. This voice command capability extends to every function and feature mentioned above – and more. If a user is watching a basketball game on TV and wants to see player/team statistics, he/she only needs to say "fantasy" and statistics will be displayed even as the show continues. If a user is watching a movie and wants to browse the internet at the same time, he/she only needs to say "snap Internet Explorer" and a window will pop up, allowing internet browsing and movie viewing side-by-side. If a user wants to Skype chat while doing all of the above? Fully supported. All of these features do come with a price. As part of an anti-piracy measure, game discs are downloaded onto the console and must be authenticated by an internet check-in every 24 hours. After downloading the disc into the system, the content is wiped and the disc becomes useless, to prevent owners from swapping or selling games without Microsoft's permission. This locks retailers and customers out of the cheaper used game market.

Much of the functionality mentioned above *requires* an internet connection to work. Users with weak internet connections will likely not be able to take full advantage of these features. Daily authentication locks out users like military personnel (a sizable chunk of the market) who go without internet for long periods and won't be able to play games. Additional problems like region-locking (making the console not work in certain countries) means that international gamer/game developers *can't play games* on a console that is supposed to be designed to play games. Ultimately, some gamers felt that Microsoft went to a video game convention and pitched a device that works for movies, apps, internet, sports, and TV, but not video games. The Xbox won't work without Kinect, and the Kinect can't be turned off or disabled, only "paused."

Microsoft's rival Sony took advantage of consumers' skepticism about Kinect. Sony's communications about Playstation 4 emphasized features of the console such as support of used game markets, no internet authentication requirements, and most of all, what new games could be played on the Sony system. In response to the backlash over used games and internet connectivity, Microsoft decided to go back to the old Xbox 360 model of supporting disc trading and not requiring authentication. The move was dubbed "Xbox One-Eighty" by journalists.

Why did Microsoft build in these controversial features? While an all-in-one entertainment system with a voice interface sounds great, why the tight controls? What do they get out of it? DATA -- and through analytics, a competitive challenge to Google, Amazon, Twitter and Facebook.

In this technology-oriented age where information is ubiquitous, companies are able to gather information about users like never before. Questions like "What do customers do before buying my product?" or "What do customers who buy my product also buy?" do not have to be exhaustively researched when the customers provide the information voluntarily by consenting to End User License Agreements (EULAs). These EULAs are designed first to protect companies from liability, and imply that they might protect individual users' data such as personal, demographic, financial, and contact information. What they do not do, however, is prevent users from having their data combined with others' and sold for profit.

With Xbox One and its required Kinect attachment, Microsoft can gather aggregate user data on an unprecedented scale. Not only are all user interactions regarding movies, TV shows, video streaming, games, internet use, social media, and video chat/IM monitored.With a high-quality motion and sound sensor, users' biological functions like eye movement and body movement are also monitored. With the capturing and analysis of this biological data, Microsoft can accurately measure a wide array of human emotional response such as excitement, boredom, and tension. When used in conjunction with data gathered from users watching movies or playing games, Microsoft has all it needs to build the first maps predicting human emotional response to media. By requiring users to connect to the internet at regular intervals, Microsoft gets constant feedback to whatever changes they make to systems and

services, as well as constant intake of information on what users are doing. With these tools, they can compile and sell a complete package of what their customers are watching, playing, buying, and talking about *and* how consumers *feel* about these interactions.

These consumers are not participating in a focus group for which they are being compensated – in fact, the EULA states that users give this data as part of the "service" of using products they paid for. In the case of Xbox One, this includes the $499.99 price tag and a $60/year membership fee in order to use many of the online services. Add to that the price of games and other media content purchased through the Microsoft systems – and add that to whatever money Microsoft gets from selling aggregate consumer data, and the company is making money just on the "service" of providing media.

Ultimately, this business model is not about providing a great service to gamers, it is about advertising revenue and cornering the market on collecting user data in entertainment. Today, consumers don't just yield their eyeballs to advertisers, they yield their content, their personal data, their "click history" on internet use and now, their biometric data through motion capture. Offering these multiple data services to their advertisers and sponsors allows Microsoft to be competitive in a market with fierce rivals such as Google, Facebook and Twitter. While Microsoft has reversed policies on game ownership and the used game markets, users remain firmly in Microsft's data collection net, where the real earnings potential lies.

Conference coverage by Peter Jolls

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Child as Hero, Child as Audience

Young men and women populated European fairy tales well into the 19th century. It wasn't until the late Victorian Era and the early 20th century, with books such as *Alice in Wonderland* and *The Secret Garden*, that children became the heroes of fantasy tales. But the new trend initiated a tradition which remains alive and well in the 21st century. In this MediaLit Moment, your early elementary students will have the chance to both identify with and critically examine the young heroes in contemporary fantasy films. In the process, they'll develop an awareness of themselves as target audiences for such films.

Ask students to identify the roles which children play in fantasy films.

AHA!: The people who make these movies want to keep my attention with characters my age!

Questions to Guide Young Children: Deconstruction
KQ#3: What do I think and feel about this? What might other people think and feel about this?
KQ#5: Is this trying to tell me something? Is this trying to sell me something?

Grade Level: 3-4

Materials: TV and DVD player or computer with high speed internet access, LCD projector and screen; fantasy films in which children are primary characters. Examples: "Harry Potter and the Sorcerer's Stone," "The Neverending Story," "The Spiderwick Chronicles," "The Lion, the Witch and the Wardrobe," "The Secret of Moonacre." Preview one or more films and note sequences which demonstrate the centrality of younger characters to the resolution of problems presented within them.

Activity: Tell students that the lesson will focus on movies set in magical worlds which have characters their age. Can they name any? Next, show the clips which you have selected. Ask students to imagine being in the place of the characters their age. How does it feel?

As the discussion continues, you may want to ask, have you ever felt like your parents weren't giving you the attention you wanted? Would you feel more important if you were like one of the younger characters in these films? Sample clip: one of the final scenes from "The Spiderwick Chronicles" in which the diminutive Thimbletack magically appears before the mother of the family and the children reassure her that she's not crazy or in danger.

Recount the feelings that your students experience when they identify with the characters their

age in these films. Call attention to the fact that there are many movies like this, and that the people who make these movies decided to put these kinds of characters in them. Why do they think the people who made these movies decided to do that? Discuss KQ#5 for young children with them as appropriate.

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