THE Journal of Media Literacy

VOLUME 56, NUMBERS 1&2 . 2009

SCHOOL 2.0

Transforming
21st Century Education
Through New
Media Literacies

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LITERACY THROUGH MEDIA

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WITHIN TECHNOLOGY, WITHOUT TECHNOLOGY

How can teachers without technologies embrace the messages of new media?

BY RYAN R. GOBLE

We were talking, about the space between us all. And the people who hide themselves, behind a wall of illusion.

-GEORGE HARRISON, FROM THE SONG Within You, Without You

REMEMBER, "THE MEDIUM IS THE MESSAGE"

For the past four years I have worked at a small high school in one of the poorest congressional districts in the country. Located in the South Bronx, our school serves over four hundred students; 87% of them live below the poverty line. While many students manage to buy MP3 players and cell phones, Internet access is rarely guaranteed in students' homes. Unfortunately, Internet access is also not guaranteed at school.

Last year, for the first time in our school's ten-year history, we received extra space and funds to create a desktop computer lab. Prior to that, students shared two class sets of 2004 MacBooks connected to our shaky wireless network. The school purchased the same MacBooks for teachers, but now entering year five, they border on obsolescence.

In many cases we "hide [our] selves behind a wall of illusion" when we assume that technology alone can be a catalyst for school reform. This assertion assumes that a majority of teachers have access to technologies and the training to use them. To me, a better question might be, what can teachers with minimal technology training or those working in low-tech environments learn from new media and technology that might improve teaching and learning?

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Many discourses around media and technology in schools over the last forty years have emphasized issues of content and psychological effects. These are essential variables for the study of media and technology, but they often overlook Marshall McLuhan's famous adage that "the medium is the message." McLuhan defined a medium as any technology that acts as an extension of the human mind or body. In McLuhan's eyes a lightbulb, car, or computer are all considered media. To those ends, the message of a medium is how it "shapes and controls the scale and form of human association and action" (McLuhan 2003, p. 20).

McLuhan's "message of a medium" seems in many ways analogous to culture. Anthropologist Margaret Mead believed that "culture is the learned behavior of a society or a subgroup" (Mead + Metraux, 2002, p.22). Raymond Williams, one of the founders of Cultural Studies, believed that "culture includes the organization of production, the structure of the family, the structure of institutions which express or govern social relationships, the characteristic forms through which members of the society communicate" (Sardar + Van Loon, p.5). These conceptualizations of culture stand side by side with the messages of McLuhan's mediums. For that reason one can say that the "the message" of new technologies is embodied by the cultures they create.

What cultures do new technologies create? One of the best places to look for this answer is in the recent deluge of articulations around future skills and literacies. Representative texts like Project New Media Literacies white paper,

"New Media Literacies" (Jenkins, et al, 2006), the Partnership for 21st Century Skills Framework (2009), Daniel H. Pink's book A Whole New Mind: Why Right-Brainers Will Rule the Future (2005) and Howard Gardner's 5 Minds for the Future (2008) all have different foci, but clearly illuminate the messages of new media and the cultures they are creating.

These "frameworks for the future" contain common themes around things like: decentralization, performance, roleplay, empathy, storytelling, collaboration, synthesis, patternrecognition, play, and interdisciplinarity. Among this list, the clearest meta-theme of these frameworks is the importance of making connections between people, things, ideas, and data. These newly emphasized values mirror the potentially positive messages and cultures surrounding new technologies.

While the technologies sending these messages have "newness" to them, it is important to remember McLuhan's point that every new medium merely contains old media. Speech contains thought, writing contains speech, and books contain writing. The Internet contains books, their related print media, and a wide range of media related to sound and image. Since none of the media contained by the Internet are "new" it is safe to infer that people are actually reacting to a newly emphasized set of cultural values.

2. CONNECT THE MINDS

We know from neuroscience that connecting ideas, thoughts and experience is essential for learning and memory. Psychologists who study creativity point out that connecting ideas is essential to innovation. These facts coupled with the culture of connectivity created by new media mean that the ability to connect people, ideas, and information is one of the most important skills for students to understand if they are going to be cre-

ative, caring and productive global citizens in a hyper connected world.

Because I rarely work in "wired" classrooms I developed a lowtech practice that is a mash-up of the game Twister™, Mind Maps (made famous by Tony Buzan and Inspiration™ software), connect-the-dots and the experience we have surfing the web. I call the learning experience Connect the Minds.

 $^{{\}rm I\hspace{-.1em}I}$ I mention these as "potentially positive messages" because our greatest strengths can also be our greatest weaknesses. New technologies are a double-edged sword as the seemingly positive messages of new media also allow for negative outcomes. Worst case scenarios illustrate the downsides of our increased connectivity-the increased connectivity of global finances exacerbated the economic crisis of 2008-2009. It is now easier for predators to connect with minors online and hate groups can collect followers across the globe through online social networks.

Connect the Minds (CTM) is designed to mirror the messages of new technology in a low-tech setting while creating a fun, differentiated, and meaningful way to assess, reinforce, and learn about student understandings. This activity has been used by teachers in my graduate courses and by students and teachers in the South Bronx.

I usually use CTM as a review at the end of a unit, course, or at the end of the year. It could just as easily be used as an interactive KWL activity at the beginning of a unit of study.

I. MATERIALS

To do this practice you need:

- Butcher paper enough to cover the floor of your classroom
- 2. Sticky notes
- 3. Markers
- 4. Floor Space
- 5. Moderator (usually, but not always the teacher)
- 6. Students

II. PREPARATION

To prepare for this activity:

- I. Move the desks and tables in your room out of the way so there is a large open space on the floor.
- Lay at least two 8-IO ft. sheets of butcher paper side by side on the floor space in the middle of your room. Then tape the sheets together and secure them to the ground.
- 3. Surround that space with a circle of chairs for seating.

III. PROMPTS

Before students come to class it is important to create a series of prompts (aligned to your learning objectives) that you want students to explore. The students will answer each prompt on an individual sticky note. Below, is a list of questions I created for a ${\tt IO^{th}}$ grade biology teacher I was collaborating with on a genetics unit.

Before you read the questions there are two things to note:

- The entire unit was framed around the *The 6th Day* an Arnold Schwarzenegger film about cloning.
- Students answered these questions by referencing the work they had completed during the unit collected in their notebooks and binders.

Genetics Review Questions

- I. What is a vocabulary word you still don't know? Using your notes, write the word and its definition
- 2. What is the most interesting thing you learned in the genetics unit? Explain why it was interesting.
- 3. What is one question you still have about genetics?
- 4. What activity/reading or viewing did you learn the most from?
- 5. List something you thought was fiction (made-up) that you now know is fact.
- 6. What is something from the film *The 6th Day* that you know is fiction (totally made up)?
- 7. What is a positive or negative outcome of stem cell research?
- 8. What moral challenges does cloning pose for society? Explain why this is a challenge.
- 9. What is one cool/interesting thing you learned from the short film and radio clips you watched/listened to?
- 10. List two scientific challenges posed by cloning? Explain why these things are challenges.

Here are prompts I used with our staff for an end of the year reflection.

I. What was the funniest thing that happened in your class this year? Please describe the experience.

- 2. Choose one student you learned something from this year. Explain when and what you learned from that student.
- 3. What was the best lesson you created this year, and why do you think it was successful?
- 4. What is something you wish you had done differently this year? Why?
- 5. Please list two things you learned about teaching this year.
- 6. What is something that surprised you this year?

- 7. What was a memorable quote you came across this year (from a text, peer, or student) that you want to remember for next year?
- 8. Please list two questions you would like to have answered by the end of the year.
- 9. Please list your two saddest memories this year. Is there anything you can do to improve these situations?
- 10. What was something extraordinary another adult in the school did to help you this year? Please acknowledge what they did and thank them on the sticky note.



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IV. WHEN THE STUDENTS/PARTICIPANTS ENTER THE ROOM...

Have participants sit in the chairs surrounding the butcher paper. Give each person an appropriate number of sticky notes and a marker. Explain that you are going to spend about 30 minutes answering some review questions on sticky notes. In order to differentiate the activity and allow additional processing time for those who need it, explain to participants that they only have to answer 6 out of the 10 prompts. Read each prompt slowly and allow ample time for participants to answer each question. You might also consider printing out a list of prompts that you hand out at the beginning of the *Connect The Minds* session.

V. SHARING & CONNECTIONS

There are no hard and fast rules for how to share out and make connections. In fact, I would argue that there is an almost infinite series of permutations on the script below. Here I will articulate a sequence of events as it might play out when I'm working with adolescents.

- Ask everyone to read over his or her sticky notes.
 Ask them to pull out the one they think is the most interesting for the first round.
- 2. Go around the circle and have each participant share his/her sticky notes out loud. Also, remind them it is important that they listen carefully to their peers.
- 3. Ask people to adhere their sticky notes somewhere on the butcher but away from other sticky notes.
- 4. Ask them to get down on the floor/paper (this is where Twister™ comes in) and use their marker to draw a line connecting their sticky note to another sticky note in any way they see fit. Ask them to write the reason for their connection on the line.
- Ask everyone to return to his or her seat and ask about five students to share their connections with the whole group.
- 6. Repeat as often as you like.



After this initial round you can craft many variations on this process. Some examples:

You can skip step I and 2 and just ask students to connect one of their unused sticky notes to someone else's sticky notes and share out those connections.

You can modify step #2 to have students pair share or group share rather than doing whole group share outs.

You can specify different types of connections on step 4. For example, with the genetics review we did seven rounds of connections such as:

- · Make any connection.
- Connect two of their own sticky notes and write the link between them.
- · Create a scientific link between two sticky notes.
- · Connect something positive with something negative.
- Make a cause and effect connection between sticky notes.
- Make a question and answer connection between sticky notes.
- Make two connections between something from *The* 6^{th} Day and two other ideas or concepts.

When you are working with adults it is easier to have them make a series of connections they think are interesting. Younger participants generally benefit from the additional scaffolding on step #4 for parts of the activity.



3.

Learning experiences like *Connect the Minds* create a very different culture of learning than fill in the blank worksheets, multiple-choice questions, and traditional review guides. Those traditional assessments are designed to engage students with facts they do not always know. *Connect the Minds* is about making connections between things students do know and can learn with help from their peers.

This activity is a form of active learning because students are allowed to revisit and interact with content using higher level thinking skills in a way that enriches learning. Students are able to consolidate classroom experiences and think about how the ideas discussed in class connect to other people, ideas, and information. This process allows students to get better at remembering what they've learned; psychologists call this phenomenon *elaborative encoding*.

The task is differentiated as it utilizes multimodal "ways of doing." It engages visual, auditory, kinesthetic, verbal, intrapersonal, and interpersonal learning styles. Additionally, since there is an infinite series of "right answers" it facilitates abstract thinking. Every participant is given space for creativity as he or she makes multiple new connections between information and ideas across subjects of study and domains of experience.

As you can see, this type of instruction is related to the type of experience we have using new technologies that place a high value on connections between people, ideas, and data. This activity uses the potentially positive messages of new technologies to create a dramatically different classroom culture around teaching and learning.

Few teachers work in completely "wired" classrooms and many schools do not have access to new technologies. For that reason it is important to remember that schools can be "connected" without spending millions of dollars on hardware and software. Technologies and teaching practices that create common cultures connecting people, ideas, and data can be powerful models of educational best practice.

Connect the Minds is just one low-tech example of how we can embrace the messages and cultures created by new media. Many hi-tech innovations are merely a reflection of humanity's low-tech desire to communicate in a collaborative and connected world filled with people who long to "close the spaces between us all."

BIBLIOGRAPHY

Csikszentmihalyi, M. (1996). Creativity: Flow and the Psychology of Discovery and Invention. New York, NY: HarperCollins.

Gardner, H. (2008). 5 Minds for the Future. Boston, MA: Harvard Business Press.

Jenkins, H., Clinton, K., Purushotma, R., Robison, A. J., & Weigel, M. (2006). Confronting the Challenges of Participatory Culture: Media Education for the 21st Century. Retrieved June 1, 2009 from www.newmedialiteracies.org: http://www.newmedialiteracies.org/files/ working/NMLWhitePaper.pdf

Kandel, E. R. (2006). In Search of Memory: The Emergence of A New Science of Mind. New York, NY, USA: Norton & Company.

McLuhan, M. (2003). Understanding Media—The Extensions of Man. Corte Madera, CA, USA: Ginko Press.

Mead, M., & Métraux, R. (2002). The Study of Culture at a Distance. New York, NY: Berghahn Books.

Partnership for 21st Century Skills. (2009). Framework for 21st Century Learning. Retrieved June 1, 2009 from www.21stcenturyskills.org; http://www.21stcenturyskills.org/documents/framework_flyer_updated_april_2009.pdf

Pink, D. (2005). A Whole New Mind: Why Right Brainers Will Rule the Future. New York, NY: Penguin Group.

Sardar, Z., & Van Loon, B. (1998). Introducing Cultural Studies. Cambridge, UK: Totem Books.
Wibberley, C., Wibberley, M. (Writers), & Spottiswoode, R. (Director). (2000). The 6th Day [Motion Picture].