

#1 I assert that aesthetic considerations and human-centered design has been usurped by engineered, and functional considerations at the expense of good design. I'm quick to note that this is similar to the decline in formal grammar, sentence structure and even spelling that we witness in use of such technologies as text messaging and twitter.

I began this research with the idea that fundamental design practices and the standard design elements would be the foundation for an emerging digital literacy that I have labeled as computer-mediated communications. Then I surveyed ATEC students and analyzed popular sites and to my disappointment and surprise, conventional design does not appear to be the leading force in web-based communication technologies.

The next factor that inspired my presentation today comes from recently attending the Expanding literacy conference at OSU in Ohio. I hoped to engage in robust conversations about this new literacy or illiteracy happening on the screens and projections of emerging media. And to my surprise the conversations weren't taking place and when technologies were mentioned, they were not supported with a strong definition of a digital literacy or communication that is occurring via digital platforms.

#2 So, in an attempt to understand why the conversations are not occurring I created this model.

I imagined a wedge that creates a sharp divide between those who embraced technology and those who thought computers were nothing but a distraction in the classroom. I labeled these areas of difference as:

1. technology exposing a decline in literacy
2. technology causing a decline in literacy
3. or emerging technology leading the evolution of a new literacy

and these caused, respectively,

1. less educated students
2. a distraction from the classics
3. or an emerging intelligence

All three wedges point to a central area that has been labeled "academic real estate" and contains the academic considerations of knowledge, intelligence, and education.

#3 There appears to be a toxic aspect to this conversation that makes a dialogue difficult and I've identified three areas of potential contention that include:

1. Academic real estate
2. Relationship to technology
3. Affects of technologies on future generations

#4 Because I'm interested in communications and collaboration I identified three common denominators that can be the foundation for more in-depth exploration and I've labeled this the eliteracy dialogue. I like the proximity to illiteracy this word holds.

I was amused to find the illiteracy idea strongly expressed in two books I just recently ordered titled:

☒ Distracted: The Erosion of Attention and the Coming Dark Age
by Maggie Jackson and Bill McKibben

☒ The Dumbest Generation: How the Digital Age Stupefies Young Americans and Jeopardizes Our Future (Or, Don't Trust Anyone Under 30)
by Mark Bauerlein

The three primary areas that captures the essence of computer-mediated communications are:

- Amount of information (Quantity)
- How information is accessed and consumed (Reach & Relevance)
- What we do with it (Impact)

#5 My focus is on the design aspects

Who is creating the applications, producing the content, and facilitating the communication.

My intention is to show that media which is connecting people, facilitating collaboration, enabling computer-mediated communications is engineered with an emphasis on functionality and not designed to maximize the human experience.

The Digg site is an excellent example of information design with equal attention to form and function.

#6 I have limited my scope of research to technologies such as email, text messaging, instant messaging, voip, skype, social networks, and digital displays projecting video, audio, and animation, generally speaking computer-mediated communications.

#7 As early as 1983, Mitch Kapor, the founder of Lotus 1-2-3 and the first commercially successful spreadsheet said in his Design Manifesto that software was being “engineered and not designed.”

#8 To frame my research, I’ve started with the phrase “Form follows Function,” first introduced by Louis Sullivan in 1896. Sullivan was an architect considered the father of the US modernist movement. His buildings were devoid of purely ornamental elements. He believed that the exterior of an office building should reflect its interior structure and its interior functions.

#9 I have followed the idea of form follows function throughout the history of design, but expanded the phrase to include human-centered design for Form and the meaning of practical/engineered applications for function in an effort to identify who is leading the creation process.

#10 and then asked, What does it look like when Function follows Form? Here are three examples that illustrate different relationships with concepts of form & function:

#11 John Rheinfrank in a study he conducted while working with Xerox Corporation describes the evolution of the Xerox copier from a design perspective.

- The first copier on the left, Rheinfrank describes as engineering design or black box design.
- The next generation of copiers was influenced by an industrial design perspective. The machine functions were still opaque to users and the design priority was tailored to fit the machine in the office environment as a piece of furniture.
- Finally, Rheinfrank described a machine that he called experiential design.

The functionality of the machine encouraged users to fix expected errors such as paper jams or replacing the toner as needed. This is commonly called human-centered design. It considers the end user and makes operations, maintenance, and minor repairs intuitive.

In Rheinfrank's study he describes a process that he called "design led innovation," or designing for appearance to designing for usability." Which was done by simply redirecting the emphasis from black box engineering to user centric design.

#12 I am a metal sculptor and I recently placed a piece at Snider Plaza for an event that served as a fund raiser for the retail shop association.

The event planner and organizer had to coordinate with

- a large number of shop owners,
- the association,
- and the city to simply place art on the sidewalks.

His solutions to meet all the demands was to build large black pedestals, secure the art with boards nailed around the base, and then cinderblocks laid on top of the sculptures base.

In an effort to abide by city code, deter theft of the pieces, and not permanently place any of the pieces, this was his solution. He was successful, except from one perspective. It is no longer the piece of art that I submitted.

This is form following function when function describes a practical approach at the expense of aesthetic considerations or artistic integrity.

#13 Frank Gehry is a contemporary architect who practices function following form. His buildings are sculptural and he has redefined how the construction industry collaborates with designers.

#14 His team uses the phrase "Form follows skin" which means the interior follows the exterior design.

#15 Now make the leap to the web and the web site, MySpace. I would say that most web design reflects form following function and my further work will be dedicated to identifying if current social network sites can be enhanced with design that is driven by human-centered design and not an engineering perspective, strictly relying on the newest content or the latest features or applications.

#16 Does technology have a place in the classroom?

And what are the barricades that are prohibiting open, honest exploration and dialogue?

#17 I believe it is important to identify who is authoring computer-mediated communications because this discipline will be providing content and curricula that leads the academic real estate area: knowledge, intelligence, and education in the future.

What is the role of computer-mediated communications?

#18 If computer-mediated communications and digital design entails multi-media, multi-modal content, utilizing universal symbols, images, and sounds that reach across cultures and beyond borders, I believe a new literacy and intelligence will be necessary.

And I argue the most qualified author of such content is a designer creating from a design perspective.

I hope we can redirect our attention from the decline of intelligence and begin designing a future that embraces technologies and supports an information society and begin a robust dialogue exploring what this looks like.

#19 I conclude with a quote from Dr. Mihai Nadin, a professor in the ATEC program. He writes in a 1997 paper, “The tasks of design shift from the traditional expectation of giving form, of Gestalt, to inventing new forms, some as exotic as the design of new molecules, new genes, new materials, [and] new forms of human interaction [Communication!].”

#20 Contact Information!