Running head: SCHOLARLY JOURNAL REVIEW

Scholarly Journal Review: Technology Review Bradley A. Lavite Southern Illinois University Edwardsville

Abstract

This review consisted of selecting and reading one full volume of a Scholarly Journal in the Field of Instructional Technology which was Technology Review published by the Massachusetts Institute of Technology (MIT) 6 times per calendar year. The review was intended to provide an overview about the content of the journal relative to Instructional Technology, our course and our general interest. In addition, individual student reviews will be reviewed by our peers in an online environment and serve as a future online classroom discussion starter.

The magazine reviewed is titled Technology Review published by Technology Review, Inc. which is a media company owned by the Massachusetts Institute of Technology. What is unique about this magazine is that it is the oldest technology magazine in the world. It made its debut "in 1899 and currently has international editions in China, Italy, and Germany, and reaches more than two million industry and R&D leaders around the world through its print magazine, website, newsletters, and live events" (Technology Review, 2008, Frequently Asked Questions). The magazine would be a very interesting read for anyone within the Field of Instructional Design and Learning Technologies, however its primary audience or core subscriber base is "Chief Experience Officers (CXOs), entrepreneurs, researchers, venture capitalists, and financiers" (Technology Review, 2008, Frequently Asked Questions). It is believed that this magazine keeps these subscribers abreast of what is going on in terms of research and development around the world in the world of technology allowing, which allows them to make innovative and forward thinking decisions based on such research. Technology Review's main purpose or goal "aims to promote the understanding of emerging technologies and to analyze their commercial, social, and political impacts" (Technology Review, 2008, Frequently Asked Questions).

The 2008 period of the magazine reviewed ranged from January to November the current and last issue of the year on new stands and online now as the magazine is only published at a frequency of 6 issues per calendar year. There are two methods that the two million subscribers have access to the 6 published issues of the magazine and they are via print subscription by mail and online through a digital subscription. In addition to their subscription, subscribers have various other resources available as part of their membership such as:

Magazine Services

• Gift Subscription

- Digital Subscription
- Reprints, Back Issues, Customer Service

Career Resources

Job Board and Resource Center

MIT Technology Insider

• Stories and breaking news from inside MIT about the latest research, innovations, and startups--in a convenient monthly e-newsletter.

Twitter Access

• Technology Review updates via the web, cell phone, or Instant Messenger.

A one-year subscription (6 issues) to Technology Review is available for residents of the United States for just \$19.97 and as a paid subscriber you are entitled to unlimited access to Technologyreview.com which includes over 9 years of magazine and web archives. International subscriptions are also available, however pricing varies depending on country so interested individuals should check the <u>international subscriber's website</u> or call customer service at 800-877-5230 or 818-487-2088 between 5am and 5pm Pacific Time for specific pricing. (Technology Review, 2008, Frequently Asked Questions).

Technology Review is structured similar to most majorly produced magazine or journal available for sale on the rack and its lay out is very familiar to others for an easy and enjoyable read. The online edition of Technology Review offers users the ability to listen to each article via Flash or MP3 or podcast the content to a portal device. Online users also have the ability to share the content of the article using numerous online services, store it as a favorite, print the content or email it. If Technology Review had to be compared to another trendy magazine, the closet one that would come to mind in layout and content would be Popular Science, however the topics, content and style of the articles is what sets them apart. Technology Review has found that niche audience as mentioned above and seems to have nailed down through the years of research within the leading institutional departments of Massachusetts Institute of Technology (MIT) the

backbone of the magazine. MIT lends its creditability to it the numerous articles found within it covers every other month. In 2008, as one would expect due to the growing concern over rising energy cost, renewable energies were a catalyst and driving force for much of the research conducted at MIT, therefore 50% of the cover stories in the magazine were about energy or alternative fuels. This, however, says a lot about the magazine and MIT in general and that is it knows what is in focus and should be in the public eye as it relates keeping those key subscribers who were the entrepreneurs, researchers, venture capitalists, and financiers in the research and development communication loop. Some of the 2008 cover stories included:

January/February-

The Price of Biofuels

Corn ethanol is inefficient to produce. Better biofuels are a long way from your gas tank. But do we really have any other options? *By David Rotman*

March/April-

The 10 Emerging Technologies of 2008

Technology Review presents its annual list of the 10 most exciting technologies.

May/June-

An Electrifying Startup

A new lithium-ion battery from A123 Systems could help electric cars and hybrids come to dominate the roads. *By Kevin Bullis*

July/August-

The Business of Social Networks

Web 2.0--the dream of the user-built, user-centered, user-run Internet-has delivered on just about every promise except profit. Will its most prominent example, social networking, ever make any money? *By Bryant Urstadt*

September/October-

How Obama Really Did It

Social technology helped bring him to the brink of the presidency. *By David Talbot*

November/December-

Sun + Water = Fuel

With catalysts created by an MIT chemist, sunlight can turn water into hydrogen gas. If the process can scale up, it could make solar power a dominant source of energy. *By Kevin Bullis*

Each of the cover stories from every issue made for a very interesting, enjoyable, eye-opening and insightful read into some very fascinating technological advancements and tools that one may never have known existed or had been overlooking all this time if not for reading the cover story. The cover story from 2008 that spark my attention the most was the May/June edition titled An Electrifying Startup, By Kevin Bullis. Mr. Bullis' article describes the recent advancements in lithium-ion batteries and how they will come to power the next generation of automobiles, particularly the Chevy Volt, which will be manufactured by General Motors (GM) and is expected to start production in 2010. I have been watching the growth and development of the company, A123 Systems, discussed throughout this cover story since 2006. Currently, GM has selected as indicated in the article two potential battery manufacturers to produce the packs for the Volt and other electric cars they may offer in the future. The other company currently being researched and considered is Ener1 (HEV), a leader in automotive battery technology in the United States. Based on this article and my own independent research it is clear that the Technology Review is on the cutting edge of what is happening in terms of research and has spheres of influence because of its relationship with MIT. In addition, to each cover story the magazine has a very structured format from issue to issue that keeps the reader focused and allows them to be selective and read only those areas that are of interest to them without having to weed through and read every area or article to find something of interest. For example, the magazine has the typical content found in most other magazines or journals such as:

1. From the Editor

- 2. Contributors
- 3. Letters
- 4. Notebooks
- 5. Forward
- 6. Features
- 7. Essay
- 8. To Market
- 9. Q&A
- 10. Photo Essay
- 11. Reviews
- 12. Hack
- 13. Demo
- 14. From the Labs
- 15. Years Ago in TR

It is the Reviews, Hack, To Market, Demo and From the Labs sections of the magazine that I found most fascinating and interesting as it is in these sections where the pure thought seemed to emerge and the ideas found within were untainted by outside influence thrived. For example, in the November/December 2008 edition an article in the "Reviews" section explored the ever so popular and ever growing Wikipedia online encyclopedia and how it is reshaping the way everyone thinks about the internet and the word "truth" especially as it pertains to scholarly research and how work is cited. The bottom line of the article was the next time you Wikipedia ask yourself –Wi- you do it and then ask yourself is what your find there the truth or just some unverified third parties interpretation of it?

November/December 2008

Wikipedia and the Meaning of Truth

Why the online encyclopedia's epistemology should worry those who care about traditional notions of accuracy. By Simpson L. Garfinkel

Another article found in this issue located in the "Hack" section that I found interesting and directly related somewhat to my Design Project explored how Smart Card technology might not be as hack proof as once believed. Although it is one of the strongest forms of security currently

available on the market with every advancement in security, there is the advancement of the hack or criminal element on the flip-side and this article although it does not divulge everything it does paint a clear enough picture that it can be done with the right kinds of tools, the knowhow and the willingness to succeed!

How Smart Is a Smart Card?

A smart card's RFID chip reveals the algorithms that control it. *By Erica Naone*In the "To Market" section of every Technology Review the publication reviews new products and technologies that are just hitting the market or making their debut. Each review offers a brief synopsis of the product or technology, along with cost, where to locate additional information and the producing company or manufacture. A few of the products that I found interesting from various issues throughout the publication year while conducting the review were:

1. First Pocket Ultrasound

a. Found interesting as I sustained a foot injury while deployed to Iraq in 2003-2004 and have had Ultrasound treatments during Physical Therapy, however, at a cost of \$25,000 for this device, I think I will continue with the P/T at this time!

2. Blood-Stanching Gauze

a. Was issued these types of gauze pads while deployed to Iraq and they really work and act as a blood stopping agent until medical attention can be rendered.

3. Competition for the Wii

a. Just thought this was interesting because it was based on magnetic north and not associated with the actual gaming system.

4. Every TV an Internet TV

a. I am actually looking into maybe purchasing this product or a similar device, so I can sling my content on PC to my TV. Upon visiting this website I was in turn introduced to website called Hulu. Hulu is an online video service that offers hit TV shows, movies and clips at Hulu.com and other online destination sites — all for free, anytime in the U.S. For more details on Hulu's service, check out the Hulu product tour at http://www.hulu.com/

5. Automatic Photo Uploads

a. Found this to be very interesting as I hate transferring all of my pictures and videos from my digital cameras and cell phones to my PC and something like this would be perfect for me as I would no longer need to do so every time my wife takes a picture!

The "From the Labs" section of each publication breaks technological breakthroughs down into primarily 3 areas:

- 1. Nanotechnology
- 2. Information Technology
- 3. Biotechnology

Each of the areas offer insight into what is going on relating to research and developments as well as the who's who in term of the most promising developments in each area or discovery. There were so many to discuss and most were often over my head in terms of what was being discussed, however some were easily understood and readers could easily discern the broader scope and use of the technology. For example, one of the more interesting breakthroughs that I

read and understood was located in the January/February 2008 publication and related to flash drive alternatives and trying to increase the amount of storage within microchips.

From the Labs: Nanotechnology

New publications, experiments and breakthroughs in nanotechnology--and what they mean. *By Kevin Bullis*

The last section that I reviewed and found probably the most interesting of all the sections of the publication was the "Demo" section. In the Demo section, ordinary people are often the focal point and highlighted as they explain how they have developed some form of new technology or enhanced an old technology to make it better or more useful than its current form. The Demo that I chose to highlight was about a man named Richard Tobey, who is the Vice President of a Warrenville, IL based company that has developed a tube that is part of a larger bioreactor which can make ethanol out just about any organic material you can imagine. What is neat about the online Demo section is that most of the articles have links readers can click on to become more immersed in the content through various multimedia applications.

Ethanol from Garbage and Old Tires

How a versatile, cheap new process turns garbage into biofuel. By Kevin Bullis

Multimedia:

- 1. William Roe, Coskata's president and CEO, and Vinod Khosla, one of the company's main investors, describe the benefits of its technology.
- 2. View the process for making biofuels.

Overall, the common theme throughout this magazine is the advancement of technology through research and development. Although it would seem that MIT would want to hold onto a captive audience and limited thought pool by just using internal resources from within the university, however that is not the case. This magazine is very diverse, broad based and pulls from various sources and strives to make its content as relevant to the current times as possible.

After completing this review and rereading Technology Review's main purpose or goal again which "aims to promote the understanding of emerging technologies and to analyze their commercial, social, and political impacts", I firmly believe that they have done so and that will continue to lead the way in terms meeting this purpose and goal (Technology Review, 2008, Frequently Asked Questions). As a person who is interested in being on the cutting edge of technology and developments within and throughout various fields, I will continue reading and using this magazine as a source of information because it is trustworthy and creditable as well as entertaining.

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