

## Innovation for Innovators

*an occasional column exploring principles, models, and theories of innovation in business and management*

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### Where do they find the time?

In 1492 while Christopher Columbus was exploring the Atlantic Ocean in search of the Indies, Johannes Trithemius, the Abbot of Sponheim in western Germany, was struggling against the disruptive impacts of the printing press. Johannes Gutenberg had invented movable type around 1439, making it possible to print a book faster than a person could read the book. This famously ushered in a new age of literacy and a transformation of society that included the Protestant Reformation. But, fifty years after its introduction, Abbott Trithemius was facing the concrete effects of the printing press on the monks and scribes whose sole mission in life was to transcribe appropriate materials for the reading public. For fifty years both methods of book production had existed in parallel, but it was becoming increasingly obvious that the life and mission of the scribe was being eliminated one book at a time. Trithemius finally resorted to writing a treatise on the importance of maintaining the life of the scribe in society. He produced *De Laude Scriptorum* ("In Praise of Scribes"), in which he laid out the values and virtues of the scribal tradition. He described four benefits that accrue from writing books versus printing them: (1) the precious time of human life is valuably spent; (2) the scribe's understanding is enlightened as he writes; (3) his heart is kindled with devotion through his writing; and (4) after this life, the scribe is rewarded with a unique prize. [1]

Trithemius' treatise focused on the value of transcription to those who are doing the transcribing, not those who need the books. This perspective and concern are common and often repeated when a new technology threatens an old one. The livelihood of individuals is threatened, social foundations are shaken, economic models are broken, and whole classes of people experience unease with the new shape of the world. I described this type of creative destruction in the last column, but this month I want to use these ideas to look at the emergence of the participative web that is occurring all across the Internet, sometimes referred to as "web 2.0" or "the social web."

Until a few years ago, the Internet and the Web were places where established organizations created and published content for the rest of the world to consume, digest, and use in some way. Bulletin boards and private web sites certainly existed, but they were created by a very small minority of technical literati with the unique skills to accomplish what much larger organizations were doing. But then in 1995 Ward Cunningham created the Wiki which was followed by Classmates.com during that same year. These introduced the first social networks and shared web sites. In 1997, Jorn Barger introduced the Web Log (a.k.a. Blog) which allowed people to easily publish a running stream of material in the form of a newspaper, gossip column, or diary. Slowly web users began to realize that they could publish their own Internet content as easily as creating a business document. Ten years later there were millions of personally published

web sites. Technorati currently tracks over 112 million blogs, Wikipedia contains over 10 million articles in 250 languages, YouTube contains over 83 million videos, MySpace hosts over 100 million user pages, and Flickr contains over 3 billion photos [2]. A modern Abbott Trithemius might ask, “What will this do to the official information providers in society?” and “Where do people come up with the time to do this?”

Content	Current Estimate
Blogs	112,000,000
MySpace Users	100,000,000
Facebook Users	69,000,000
YouTube Videos	83,000,000
Wikipedia Articles	10,000,000
Flickr Photos	3,000,000,000
Ning Social Networks	185,000
World of Warcraft Accounts	11,000,000
Second Life Accounts	13,000,000

Source: Wikipedia encyclopedia, <http://en.wikipedia.org/>

The answer to the first question is unfolding every day as we witness the loss of consumers of newspapers, magazines, and television broadcasts. One viewer at a time is discovering the interesting, unique, and niche-oriented material on YouTube, Facebook, Flickr, and Wikipedia. The ultimate answer seems clear; the web is supplanting the television as a source of entertainment and information in the same way that the television supplanted radio and newspapers in a previous generation. In the end, all of these will continue to exist, but the balance of social influence and earned revenue will have changed drastically. Paul Saffo has said that, “Silicon Valley is littered with the corpses of companies who mistook a clear view for a short distance.” [3] Though the shift to a new media is clear, the travel time to the future is impossible to determine which makes corporate and venture investment in the new media risky.

The answer to the second question, “where do they get the time”, is only obvious to those who are creating the content. The modern “scribal generation” creates products in their professional lives when they are receiving a paycheck to do so, but not as a hobby or as a form of entertainment. This generation has spent the last 50 years comfortably ensconced in front of the television and is convinced that only professionally created content is worth paying attention to. They fail to recognize the local high school football game as entertainment created by amateur hobbyists. This amateur entertainment is not meant for mass consumption, but has a small and devoted following from the classmates and parents of the players. In many ways the social web is like these sporting events. The cost of creation is marginal, it is not initially targeted at a large audience, and the small group that is interested is very devoted. A few of the sites may resonate with the mass populace and become a blockbuster, but most remain small forever. America and the world are becoming more interested in customized entertainment, rather than the mass market entertainment and information that have been in vogue for decades. In a metaphor, we are all beginning to spend more time watching the local high school football team rather than the NFL.

Who is creating all of this content? By one estimate, the people of the United States alone spend 200 billion person-hours watching television each year [1]. This is a huge investment of mental and physical capital in an activity that produces absolutely nothing beyond a shared consciousness of how Jim and Pam taunted Dwight on the latest episode of a favorite sitcom. The content creators on the web have just redirected a tiny fraction of this consumption time toward the creation of their own content. Mark Wattenberg of IBM and Clay Shirky of New York University estimate that it has taken about 100 million person-hours to create the entire contents of Wikipedia [4]. If that is in the right ballpark, then a conversion of all television time in the United States could create 2,000 online projects of the magnitude of Wikipedia every year. This would be a huge contribution to shared human knowledge, niche entertainment, and the most complete historical record ever compiled.

Abbott Trithemius was extremely passionate about preserving the scribal tradition and wanted to get his message to as many people as possible, as quickly as possible. His only option was to have the treatise typeset and printed by the very machinery that he was speaking out against. Even his message could not deny the power of the printing press. There is a similar power at work in the spread of participative, social, amateur web tools for creating information content. In spite of all its weaknesses, it is becoming the only way to spread information effectively around the world, and this will soon include commercial business communications. The Gutenberg Bible may be the most famous product of the printing press, but the transformation that it enabled in education and industry is much larger. Social networks, wikis, blogs, and similar tools originated as experimental software and amateur communication outlets. They have already had a significant impact on the news and entertainment industries. They are not going to stop there. These tools will become as central to corporate communications and business operations as e-mail has become over the last decade. Companies that begin to experiment with these technologies will be in a position to leverage them toward competitive advantage just as they did with IT systems in the 1990s. Those who do not will become followers who avoid the early expenses and uncertainty, but who also miss out on the unique advantages that accrue to the leaders. Companies will align themselves with the tradition of Trithemius or the innovation of Gutenberg.

## References

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