

Illinois Online Conference 2007

Using Technology and Social Networking Concepts to Build Learning Communities

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Notes

Change

Our incoming students will experience as much change in a week as our grandparents did in a year. Change is a way of life for them and they have adapted to it. Most of the jobs that will be available in the year 2020 do not yet exist because they are based upon technologies that haven't been invented yet.

The number of patents being applied for has mushroomed. Consider this:

"The fact of the matter is that innovation is increasing," said Harry Roman, an inventor who for many years ran the New Jersey Inventors Hall of Fame.

In the 145 years from its founding in 1790 until 1935, the U.S. Patent Office issued its first 2 million patents. It took just 41 years to grant the next 2 million patents. The next 2 million patents took only 23 years.

"Look at that growth," said Roman. "Since 1935, almost 70 percent of the patents ever issued have been issued. That's an astounding figure."¹

The Net Generation

There have been many authors who have addressed the issue of the "Net Generation." Probably the most prominent author and speaker on the subject is Marc Prensky (<http://www.marcprensky.com/>), who has characterized the emerging generation of students as *Digital Natives*. Everyone else he calls

¹ John W. Schoen, *U.S. Patent Office Swamped by Backlog*(MSNBC, 2004, accessed November 28 2006); available from <http://www.msnbc.msn.com/id/4788834/>.

Digital Immigrants. Digital natives, says Prensky, "... are all 'native' speakers of the digital language of computers, video games, and the Internet."²

To gain better insight into these students, consider this additional statement from Prensky regarding digital immigrants (all of us who teach the digital natives):

As Digital Immigrants learn – like all immigrants, some better than others – to adapt to their environment, they always retain, to some degree, their "accent," that is, their foot in the past. The "digital immigrant accent" can be seen in such things as turning to the Internet for information second rather than first, or in reading the manual for a program rather than assuming that the program itself will teach us to use it. Today's older folk were "socialized" differently from their kids, and are now in the process of learning a new language. And a language learned later in life, scientists tell us, goes into a different part of the brain.

For an excellent treatment of the very different world of the future, author Kevin Kelly addresses the issue in his discussion of the economy of the future³:

Donald Hicks of the University of Texas studied the half-life of Texan businesses for the past 22 years and found that their longevity has dropped by half since 1970. That's change. But Austin, the city in Texas in which new businesses have the shortest expected life spans, also has the fastest-growing number of new jobs and the highest wages. That's flux.

Hicks told his sponsors in Texas that "the vast majority of the employers and employment on which Texans will depend in the year 2026 – or even 2006 [this was written in 1998] do not yet exist." In order to produce 3 million new jobs by 2020, 15 million new jobs must be created in all, because of flux.

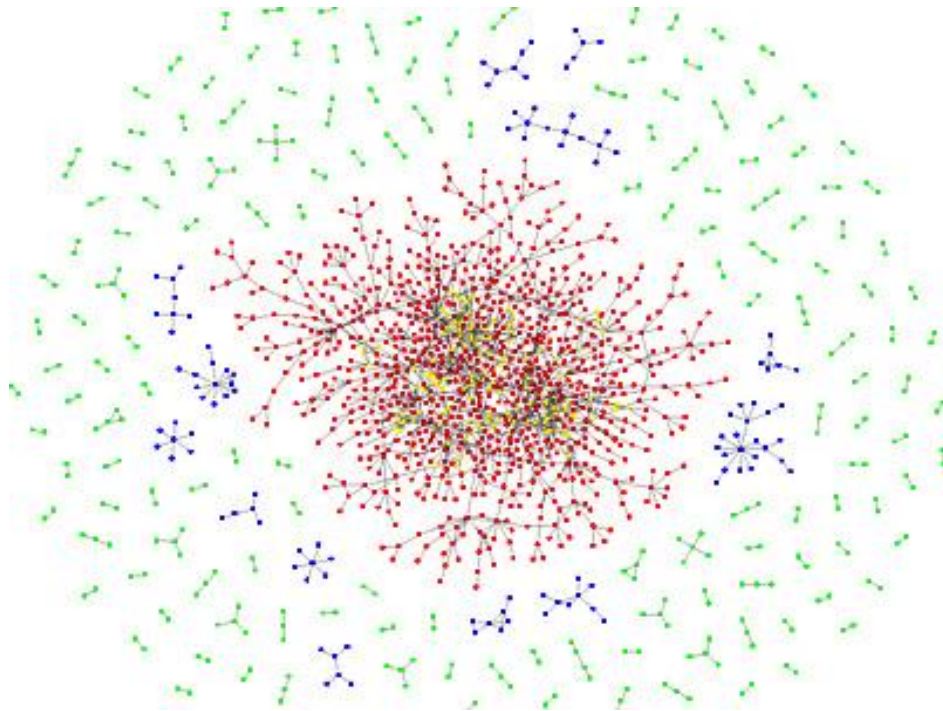
² Marc Prensky, "Digital Natives, Digital Immigrants," *On the Horizon* 9, no. 5 (2001). Also available from his website.

³ Kevin Kelly, *New Rules for the New Economy: 10 Radical Strategies for a Connected World* (New York: Penguin Books, 1998).

Friedman⁴ also addresses the nature of collaboration and the need for collaboration in a connected world. Consider the fact that most of our students are “natives” of this flat world and take many of its characteristics for granted, including the new nature of collaboration and the democratization of content.

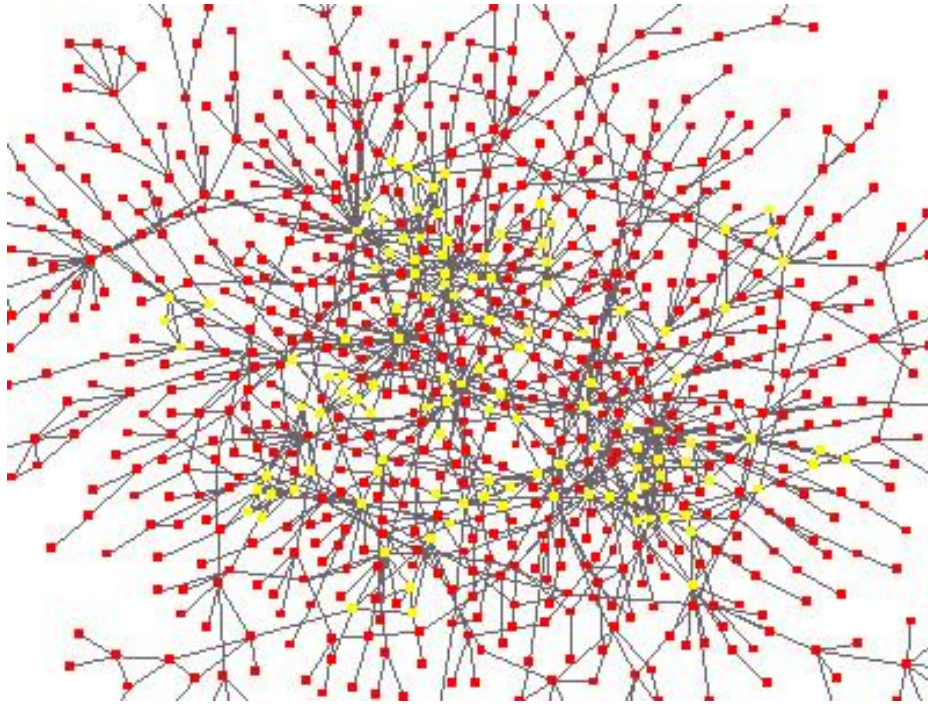
Network Theory and Social Networks

Here is an example of network theory applied to a social network⁵



⁴ Thomas L. Friedman, *The World Is Flat: A Brief History of the Twenty-First Century* (New York: Farrar, Straus and Giroux, 2005).

⁵ Valdis Krebs, *Emergent Online Community* (2005, accessed November 28 2006); available from http://www.visualcomplexity.com/vc/project_details.cfm?id=139&index=27&domain=Social%20Networks.



Emergent Online Community

Author(s):

Valdis Krebs

Institution:

Orgnet.com

Year:

2005

URL:

<http://orgnet.com/>

Project Description:

This is a map of an online community, which portrays a concentric structure where the network "hubs" or "connectors" -- people with a high number of ties, are located in the center. This arrangement cleverly follows the inherent organization of these type of communities, where the hubs are the central elements of its sustainability.

As the author explains: "Parts of it are well connected, while most of it is sparse. We see this pattern with many emergent communities -- groups that people join and participate in through common interests or affiliations. Two nodes are connected if they have exchanged emails or IMs past a certain level. The nodes are colored by their connectivity. The yellow nodes are the core, with the greatest number of direct links. The red nodes are connected to the core and have less interconnectivity. The blue nodes are "young clusters" that are just forming. The green nodes are various forms of isolates who may have just joined the on-line community, or have chosen to be inactive -- they may be the common "lurker" found in many on-line communities. The lurker listens to the public info being disseminated but chooses not to interact."

Another excellent treatment of the idea of social networks, particularly as they apply to business, has been written by Chris Anderson. He discusses *probabilistic systems* and illustrates their relationship to our emerging *democratized filtering*:⁶

Probability-based systems are, to use writer Kevin Kelly's term, "out of control." His seminal book by that name looks at example after example, from democracy to bird-flocking, where order arises from what appears to be chaos, seemingly reversing entropy's arrow.

... the advantage of probabilistic systems is that they benefit from the wisdom of the crowd and as a result can scale nicely both in breadth and depth.

Students are increasingly used to this paradigm and letting them work that way, while it may seem unnatural to the instructor, seems completely natural to them.

⁶ Chris Anderson, *The Long Tail* (New York: Hyperion, 2006). See pp. 68-69.

RSS Feed Tools

FeedForAll requires that students have web space in which to place their feeds. Since a feed is just an XML file, it takes very little space. To use *FeedForAll*, students would need ftp access to their web space.

The software can be obtained at <http://www.feedforall.com>

If your students don't have web space, there is an online alternative that is free and easy to use. The site proprietors do place ads in the feeds periodically, however, so I don't like to use it unless there is no other alternative. The site is:

<http://www.feedpublish.com/>

The site makes it simple for students to set up a feed (or multiple feeds) and place items in their feeds.

SharpReader is available as a free download from:

<http://www.sharpreader.net>

If you want to use a web-based solution, try *Google Reader*, which is part of Google's suite of applications. You can access it at Google's web page.

Also consider that *Firefox*, *Internet Explorer 7.0*, and some other browsers already have an RSS reader capability built in.

Implementing Collaborative Technologies in the Classroom

I have prepared a document that I hand out to faculty who are interested in trying out the RSS-based learning communities. The handout is on the following page.

Steps in Setting Up a Learning Community Based Upon RSS

Preliminary Work

- Decide what software you want to use for syndication and aggregation. Syndication software (used to create and maintain feeds) can be web-based or client-based. The advantage to web-based syndication is that no web server or web space is required. Aggregation software is best used as client-based if students have their own computers or web-based if they do not.
- If you are going to use a blog as part of your RSS community, make sure the blog is set up, students have accounts, and that an RSS feed is connected to the blog.
- If you are going to use a wiki as part of your RSS community, make sure that you set up the wiki so that an RSS feed is connected to it. Also, if you are going to limit access to only your students, make sure that you set up the appropriate user accounts and permissions.
- Set up your own RSS feed and add a few introductory items. Note the url of your feed so that it can be publicized when the course begins.
- Put introductory entries on the class blog (if you are using a blog)
- Put some introductory material into the class wiki (if you are using a wiki)

Student Instructions

- Let the students know which aggregator(s) you want to use and give them instructions for setting up their reader (aggregator)
- Have them subscribe initially to the following:
 - Your RSS feed
 - The RSS feed for your class blog (if you are using one)
 - The RSS feed for your class wiki (if you are using one)
- Instruct the students on how to create their feed and add items to it.
- Instruct students to email you with the url to their feed, once it is established
- As you receive feed url information from students, each url should be publicized on your feed as an item. If students are subscribed to your feed, they will receive this information via your feed and can then subscribe to each url you give them.
- Give students a deadline for establishing their feed so that all students, ultimately, will be subscribed to the feeds of all of the other students in the class by a particular date.

Once all students have subscribed to all other student feeds, they are ready to collaborate. I have found that this generally only takes a week or two to accomplish. The rest of the semester is used for collaboration. Once students have gone through this initial process, there is nothing else technical to do and they can concentrate on content.

Additional Notes

Many people ask where I get the software to run blogs and wikis. There are really several choices here, but if you don't want to spend any money, here are my suggestions:

- BLOGS – I use *WordPress*, which is open-source software written in php. It requires that you have MySQL installed on the server, as that is the database it uses. It will run on any platform that has both php and MySQL running, so it can be run on Unix, Linux, or Windows servers. If you can't set up software like this on a server, there are many sites on the Internet that allow you to set up class blogs. A quick Google search should yield many results. If you are interested in WordPress, it is available at:

<http://wordpress.org/>

- WIKIS – I use *pmWiki*, which is open-source software that is written in php. Unlike WordPress, it maintains its own database and doesn't require MySQL. If you want a web-based solution, try <http://www.pbwiki.com> where you can set up a free wiki. If you want to use the pmWiki software, it can be obtained at:

<http://www.pmwiki.org>

- FORUMS – I use *Vanilla*, an open source forum software package, written in php. It requires MySQL to be installed also. This software can be obtained at:

<http://getvanilla.com/>

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