



Clarity Innovations

New technologies with potential for impact in education

An executive summary of findings from the
2006 O'Reilly Emerging Technology Conference

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About the author

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About Clarity Innovations

Clarity Innovations, Inc. is a professional services firm that multiplies the effectiveness of our clients with solutions built on a Web 2.0 platform informed by a hybrid of expertise in education and technology. We work with corporations, professional organizations and educational institutions to innovate the process and practice of education. Learn more at <http://www.clarity-innovations.com>.

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Introduction

The O'Reilly Emerging Technology Conference (Etech) is held every Spring in San Diego, California. It is billed as the premier event for "Alpha Geeks"; those technologists on the leading edge of latest in technology. Clarity Innovations has maintained an active presence in at Etech having representatives in attendance at the original conference (then the P2P conference) as well as presenters last year.

At Etech there are typically about 1500 attendees for a three day session which covers topics ranging from the latest Web services, sites and technologies, to academic theorists on the import of emerging technologies, as well as venture capitalists looking for the next big thing. In the past, Etech has been the launching pad for sites like Flickr, Odeo and many others.

On the whole, however, I think this converence is declining. Much of its strength has been the capacity for attendees/presentors to be demonstrating new technologies and new Web services (and then explaining how they did it). Over the past two years, though, it seems to be a bit more canabalistic – meaning, it is much the same crowd talking about the same things (taxonomies/folksonomies, tagging, etc) and there just isn't enough new and emerging right now. One other reason for the decline has been the launching of a fall conference by O'Reilly on Web 2.0 technologies. It has taken away some of the impact of Etech.

Conference Themes

According to the official site for the conference, this year's theme was "The Attention Economy." From reading a number of the blogs and commentators, it does not seem that anyone has a firm grip on what that means. The long and the short of it seems to be that by engaging users, the Web is generating revenue; and that engagement needs to be interactive (in a Web 2.0-ish sort of way) where users influence data and can mash-up other content. The O'Reilly site itself doesn't do a very good job explaining what this means. One example is:

As Herbert Simon wrote in *Computers, Communications and the Public Interest* in 1971, "What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention, and a need to allocate that attention efficiently among the overabundance of information sources that might consume it."

Similarly, another stab at a definition was made by Rael Dornfest, who runs the conference with the lines:

A working definition for this year's theme: The Attention Economy. How will the socio-technological hacks and etiquette tweaks of alpha geeks today manifest as the products and services of tomorrow?

It is unclear. They don't seem to be saying much here –rather trying to make up a new term for something that is already occurring. That is, the shift on the finges/cutting edge of the Internet towards Web 2.0 services.

To put it quite candidly, the working theme was still quite similar to last year's. That is, Re-Mixing and Mashing things up. Last year, the whole idea of a Mashup was still a bit novel, so it has taken a year for the process and the outcomes to sink in. Thus, many of the presentations, tools, etc. were further extension of the mashup theme.

Technologies to Watch

The Mechanical Turk Idea. A mechanical turk is a historical machine whereby a person is inside of a machine making it seem as though it is fully automated. In this case for the world of emerging technologies, the idea is that there are some processes which it is easier or simpler for a human to do than a computer – think ‘artificial artificial intelligence.’ The best example of how this is being implemented is at Amazon.com (<http://www.mturk.com/mturk/welcome>). The deal is that Amazon is essentially paying bounties (very small) for completion of HITs – “human intelligence tasks.’ If you sign up you can do some simple tasks, earn a few pennies and have your Amazon account credited. Another example of this process is at <http://turkers.castingwords.com/> where the bounty is placed on creating transcriptions of podcasts.

Backchannel – (<http://backchannel.stamen.com/>) a visual representation of an IRC channel. Currently, they’ve updated it from ETech to SXSW. A very interesting view with of an IRC channel an its activity.

Second Life - <http://secondlife.com/>. Next to the touch-screen display, the other technology which seemed to generate the most buzz (some sites even referred to this as ‘Web 3.0’) As to what SL is, essentially it is a 3-D virtual world, but unlike the more popular games (from what I understand) it relies on the participants to create the world – literally. Users buy land, build things, download developer programs to create little applications (think macros) and upload them back to the site. Commerce exists both in the virtual world and the real world. Fundamentally, this is a game about business.

Multi-Touch Interactive Screen - <http://mrl.nyu.edu/~jhan/ftirtouch/> - this seemed to be the big ‘hit’ of the conference. A touch screen that multiple users can simultaneously use. Think of a big google maps interface and touch screen. As many have noted, it seems right out of the film Minority Report. And it is definitely really impressive. However, it isn’t somelike

we'll see commercially released anytime soon. Rather, it was just the sort of eye-candy technology that is coming soon to a theater near you.

Live Clipboard – being developed by Microsoft as an 'intelligent' clipboard that will pop up when you copy something from a browser. It will recognize things like images, rss feeds, text, etc and help you deal with them as you paste them into other applications.

Eventful - <http://eventful.com/> - a Web 2.0 infused event planner. While there are several like this appearing each week, it seems, this is one that is worth a look.

Hacking and Making – the idea of cracking open a device and building something (or modifying it) seems to have become a new bedrock for Etech. One big change has been less discussion of microcontrollers and the like and more on easier, more accessible ways to build things. One example is the <http://www.instructables.com/> site.

Boxxet - <http://www.boxxet.com/> - you can't find much about what this is, but it certainly generated a lot of buzz. Seems to be a sort of multi-form aggregator.

Last FM - <http://www.last.fm/> - social music tool. A very interesting concept to build your own radio station based on connecting with other online users. Create an account, download the ap and then run it in tandem with iTunes and you can enter an artist you like (eg Tom Jones) and it will create a radio station of the whole network of users who have Tom Jones and Tom Jones-like music. This has been around for a couple of years, but at Etech got quite a facelift.

Links of Interest

<http://conferences.oreilly.com/etech>

The O'Reilly home page for Etech. General information.

<http://www.oreillynet.com/conferences/blog/>

The official O'Reilly blog for all of their conferences. From March through April much of the content is about Etech but that of course will change.

<http://wiki.oreillynet.com/etech06/index.cgi>

The official wiki for Etech. It doesn't have too much content wise but there are some very interesting links. In particular, the attendee list makes for some pretty good reading.

<http://techconf.thepodcastnetwork.com/>

Contains a number of podcasts of the keynotes and other presentations from the conference. I expect that <http://www.itconversations.com> will soon have all of the same content (though much improved) as they do a better job of editing.

<http://blog.news.search.yahoo.com/blog/search?p=etech>

This page is a Yahoo search based on the keyword etech. It isn't that effective, but what is worth noting is that in Yahoo you can take your custom search and Yahoo creates an RSS feed from that search. Therefore, you can take an RSS feed generated from a search and drop it into something like www.feedburner.com to create an html badge or some such device.

<http://radar.oreilly.com/>

The O'Reilly Radar is Tim O'Reilly and Rael Dornfest's page for up and coming technologies, themes and issues. An excellent one to subscribe to in your RSS reader.

Conclusion

The O'Reilly Emerging Technology conference has long been one of the most engaging and thought-provoking conferences. Many of the technologies that have come to represent Web 2.0 – from things like Google Maps, to AJAX – were first demonstrated and launched at this conference. Despite a bit of a decline over the past couple of years, each conference still contains a wide variety of resources and windows in the next shifts in technology.

For educators, the Etech conference allows you to get ahead of the curve. Tim O'Reilly likes to tout the fact that this conference allows attendees to watch what all the Alpha Geeks are watching; a temporary community where attendees (be they in-person or via the Web) can participate in a discussion about the future of technology. This is an excellent model to pass along to students and to the world of education.

One simple reading suggests that Etech models how technologies that are often overlooked for education (or blocked) like chat, IRC, and other social networking tools are having a profound impact on the cutting edge of technology. On a deeper level, some of the trends fleshed out by services like Amazon's Mechanical Turk hint at the limits of artificial intelligence and the multi-touchscreen points at where screens are going.

For many, the outcomes and learnings of this conference is quite simple: it helps prepare you for the future. And for educators, there could be no greater lesson.