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Challenging Assumptions
Looking In, Looking Out

Web 2.0 in the ELT classroom: An introduction

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With the rapid development of the Internet, emerging technologies are reshaping the context of web-based information and creating numerous opportunities for enhanced classroom practice and professional development. Blogging, wikis, podcasting, and social networking are a few examples of so-called Web 2.0 technologies that language teachers are currently exploring. While early adopters have made impressive use of these new tools, many ELT instructors remain on the outside looking in—wanting to know more, but overwhelmed by the rapid pace of change. This article challenges the assumption that only those already in-the-know can keep up with educational technology. For educators new to the Web 2.0 evolution, clarity and direction is provided through defining Web 2.0 in layman's terms and introducing key technological concepts such as folksonomy, RSS feeds, and syndication. In addition, a theoretical foundation for a technology enhanced pedagogy is outlined, one that places Web 2.0 within a social constructivist and connectivist context. Finally, an overview of relevant technologies applicable to ELT is provided, along with successful classroom usage models and links to online resources.

インターネットの急速な発達をもたらす新技術は、インターネット情報をもつ意味を変え、多くのより高度な学習活動や教師の能力向上の機会をもたらしている。現在語学教師たちが研究中の、Web 2.0と呼ばれる技術のいくつかの例として、ブログ、ウィキ、ポッドキャスト、ソーシャル・ネットワーキングがある。関心を持つ者はすぐにこれらの新しい道具を見事に使いこなしたが、多くのELT教師たちは、興味があるものの、その急速な変化に困惑し二の足を踏み込んで傍観している。ここでは、精通している者だけが教育技術に遅れずついていけるという仮定に反論を試みたい。Web 2.0進化を知らない講師たちのために、初心者向けの平易な言葉でWeb 2.0の定義と主なる技術概念である folksonomy, RSS feeds, syndicationへの導入をする。さらに、科学技術が可能にする高度な新しい学習法の理論的根拠の要旨を述べる。最後に、ELTに活用できる技術の全体的概要、併せて教室で使用し成功した事例やオンライン教材へのリンク先も紹介する。

Internet usage has skyrocketed in recent years, with over 108 million websites currently active (Netcraft, 2007). Feeding this rapid expansion has been an array of online communications technologies such as blogs, wikis, podcasts, and social network services. Collectively dubbed *Web 2.0* (O'Reilly, 2005), these

new Internet-based resources have enabled users to interact like never before, facilitating a shift from passive read-only consumption on the web to active, creative participation in the generation of multimedia content (Grossman, 2006), a change that has been compared to the advent of the printing press (Hargadon, 2007).

For a growing body of educators looking for new ways to provide compelling teaching opportunities for their *digital native* students (Prensky, 2001), Web 2.0 programs are becoming the tools of choice (Hargadon, 2007). The interactive nature of these applications make them a natural fit for English language teaching (ELT), facilitating access to an inexhaustible supply of natural English input and creating authentic communication opportunities for students on a global scale. In recent years, ELT educators have been incorporating Web 2.0 resources into their teaching practices in creative and effective ways, as evidenced by numerous language and technology presentations at the recent JALT2007 conference (JALT, 2007). Despite the exciting potential, however, the rapid pace of technological change has left many educators uninformed of these new resources, or at worst feeling like they cannot keep up. As Siemens (2007) writes,

Lately, I've noticed an increasingly strong resistance among educators to technology use in education. I think we are at a push back stage—many are afflicted with “technology weariness”... too many failed implementations, too many promises that didn't materialize, too many hyped-conference presentations, too much “rhetoric of the electrical sublime” thinking. The over-hyped

“I've fallen in love” mindset often presented in relation to technology helps to drive hype for a while, but in the long run, the impact of this approach damages future, less hyped approaches to learning and technology (para. 11).

Roger's *diffusion of innovations* theory (1995) may provide some insight into the nature of this resistance. According to this theory, adopters of any new innovation or idea can be categorized statistically into the following groups, as figure 1 indicates:

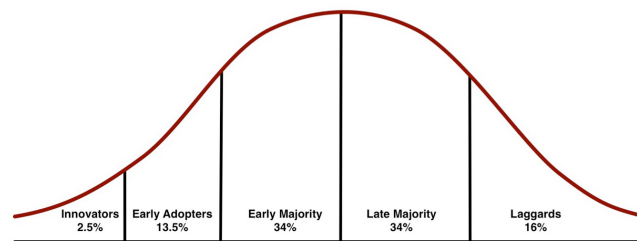


Figure 1. Rogers' technology adoption model (Rogers, 1995)

It is important to note the percentages represented on this graph reflect figures only for people who have actually adopted a particular innovation, not for the total population at large (de Jager, 2005). So, as some ELT educators have been quick to utilize Web 2.0 resources (innovators and early adopters) and others have not (laggards), this bell curve still represents only those teachers who have actually implemented a new emerging online technology. This paper, therefore, is targeted not only

at the figurative 84% of teachers slow to adopt, but seeks to provide information, guidance, and encouragement to those who have yet to try Web 2.0 resources for the first time.

For teachers not living on the cutting edge, basic questions regarding technological means of language instruction need to be addressed before any of its potential, however compelling, can be realized: What is Web 2.0? What are some of its characteristics and key technical concepts? What persuasive theoretical basis exists for a pedagogy making use of these tools? How can the myriad number of online resources be practically conceptualized and approached? Finally, which Web 2.0 technologies are most applicable to ELT, and where can resources and models of successful usage be found?

What is Web 2.0?

The effort begins with a clear understanding of what Web 2.0 is all about. The origin of the term is credited to Dale Dougherty and Tim O'Reilly of O'Reilly Media (Budd, 2005). Dougherty came up with it when he noticed at a conference on Internet media companies in the fall of 2004 that the new media companies were markedly different than those of the late 90s *dot com* era. He likened these companies to a new software version upgrade. Thus the Internet was now in it's second major upgrade (2.0). Everything before was retroactively labeled *Web 1.0*. O'Reilly's (2005) seminal article popularized the term.

Examining what Web 2.0 actually means from a technical vantage point unmasks it as nothing more than a buzzword, a marketing catch phrase. However, buzzwords have their uses, most notably making it easier for non-technical people to grasp and talk about a series of complicated and nebulous concepts.

Perhaps one reason why it is hard to pin down is because it is really more akin to a psychological or emotional state of mind. It is a rather amorphous concept—more a way of being and interacting on the web than anything concrete (Budd, 2005).

Common themes & characteristics

According to MacManus and Porter (2005), Web 2.0 companies share a number of common themes and characteristics. Primarily, they strive to provide regular software-like applications that are free and accessible from any computer on the Internet (*infoware* vs. *software*). They all take advantage of end user data in various forms, be it text, photos, audio, or video. Design is based on an *architecture of participation*, a structure encouraging users to contribute, interact, and remix user-owned data (*mash-ups*). In general, the more users participate, the better the services become. Companies rest their business models on leveraging the collective intelligence of the masses (O'Reilly, 2005). Table 1 highlights Web 2.0 characteristics by example:

Table 1. Comparison of Web 1.0 and 2.0 companies (O'Reilly, 2005)

Web 1.0	Web 2.0
Encyclopedia Britannica Online	Wikipedia
Personal websites	Blogs
Publishing	Participation
Directories (Taxonomy)	Tagging (Folksonomy)
Stickiness	Syndication

Key technical concepts

A couple of key technical concepts are important for understanding how Web 2.0 resources function. One is *folksonomy*, the way Web 2.0 apps organize the vast amounts of data their services manage. Uploaded data, be it text, photo, audio, or video, is labeled with tags of choice by each user. All of the submitted tags are then counted and displayed in a *cloud*, as pictured in figure 2:

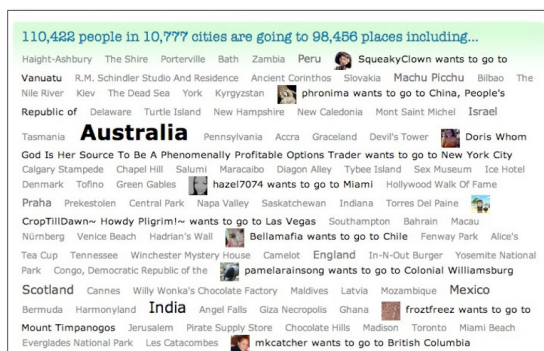


Figure 2. An example of folksonomy, the Web 2.0 method of data organization

This method of organization is efficient and intuitive. For example, users can instantly see which topics are most popular by the size of the font. In this system, it is the end users who control how data is organized—not some corporate entity.



Figure 3. Common Really Simple Syndication (RSS) feed icons

Here is another important issue: With so many websites available, how can content be efficiently accessed and distributed? The answer: syndication via *RSS feeds*, which are analogous to radio signals being broadcast from an antennae.

Almost all websites these days distribute their content via RSS feeds. To subscribe to a particular site, a user need only click on a button such as the ones displayed in figure 3 above. Doing so will automatically activate RSS feed aggregating software of some sort, either on the user's computer or on a web-based service such as *Google Reader* or *Bloglines*. Syndication thus saves valuable time and effort, since users can now track content from dozens of websites in one location.

In summary, the web 1.0 model is very corporate, hierarchical, structured, and vertically oriented. The Web 2.0 model, on the other hand, is more of a decentralized peer-to-peer network that emphasizes connection making and community building, as the overly simplified models in figure 4 present.

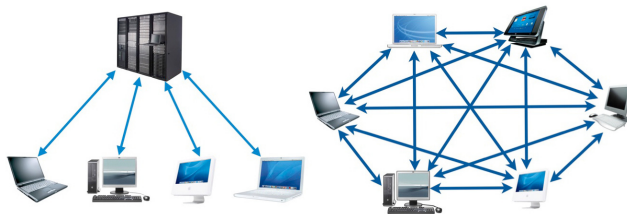


Figure 4. Web 1.0 vs 2.0 conceptual models (over simplified)

A convergence of technology and learning theory

Putting the two conceptual models of web 1.0 and 2.0 side by side brings up an interesting parallel. Web 1.0 greatly resembles the traditional tertiary model of education (McDonald & Postle, 1999), or what Palmer (1998) calls, *the objective model of truth* (Figure 5).

In this conceptualization, a particular subject exists as a pure, pristine, and distant object that can only be brought to amateur learners via specially trained experts. Baffles exist between each stage that enable objective knowledge to flow down but prevent subjectivity to somehow tarnish the purity of the object. In other words, knowledge is something distant and disembodied, to be stuffed in our brains for regurgitation on tests. While this system may have been useful in the industrial age, it is outdated and no longer coincides with modern theories of how we actually learn.

Web 2.0, on the other hand, closely resembles a *social constructivist* model of learning, one where the subject holds the center of attention within groups of interactive learners

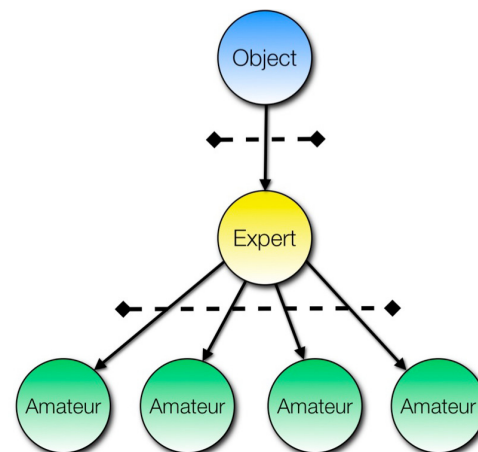


Figure 5. The objective model of truth (Palmer, 1998)

(Figure 6). Meaning is created when individuals construct and articulate what they know within a social construct, within what Lave and Wenger (in Smith, 2003) call a *community of practice*.

Palmer (1998) reveals the sharp distinction between objectivist and constructivist models of knowledge acquisition when he writes, “*a subject is available for relationship; an object is not*” (p. 102). The implications for the field of language teaching are profound. As we know from our experience, English is not best approached as something we can cram down our students’ throats, but a subject with which we can facilitate a lifelong relationship.

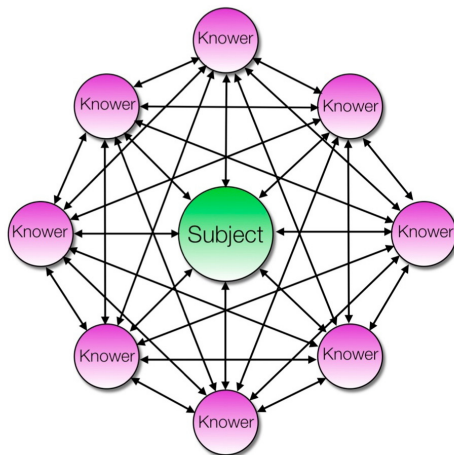


Figure 6. Social constructivist model of learning
(Lave & Wenger, in Smith, 2003)

Connectivism and learning ecologies

Connectivism (Siemens, 2004), an outgrowth of social constructivism, is a learning theory taking into account the new digital learning landscape we find ourselves in. Several tenets of this theory help provide a firm theoretical context and justification for computer assisted language learning. Similar to social constructivism, a connectivist view point places knowledge acquisition within a social context, emphasizing that learning rests within a diversity of opinions. Given this assertion, nurturing and maintaining connections is needed to facilitate the learning process. With over 100 million websites and growing, the capacity

of being able to find new information is a critical skill, more important, in fact, than what is currently known.

The notion of learning ecologies (Campbell, 2005; Campbell, 2006; Sealy-Brown, 1999; Siemens, 2004) provides a powerful metaphor giving shape to a digital age pedagogy. By visualizing learning as a holistic, organic process, it emphasizes learning as it takes place in naturally occurring, self-regulating patterns of relationships. In a learning ecology network, technology serves as an enabler, helping create fluidity between knowledge and people. In this conceptualization, teachers induct learners into ecologies by teaching best uses of technology, the role of which is clearly placed as a servant to the learning process. Instructors are no longer *experts*—they are *gardeners* planting seeds of knowledge and skill. With connecting and community building fore-grounded, the learning ecology metaphor frames the use of technology in a humanistic light. In the end, it is not about technology at all, but of empowering students and giving them experiences and skills they need to create an English world for themselves beyond our classrooms. As Campbell (2006) states,

Once students have experienced for themselves what is possible, they are then positioned to care for their own language learning needs beyond the confines of the institution and its school calendar (para. 4).

What's in it for my students? What's in it for me?

Understanding how the Internet and learning theory have evolved and converged shines new light on these questions.

For students, it is a greater feeling of empowerment, with added ability to create more English in their lives. For teachers, beyond the satisfaction of helping empower students, it is enhanced teaching practice and more opportunities for professional development. At the very least, the conceptual convergence of Internet technology and learning theory present a compelling case for ELT instructors to at least make some extra effort in engaging new online tools and resources.

Conceptualizing the possibilities

The number of free, online tools and resources that can help English learners improve their skills is immense, overwhelming, and constantly evolving. New services come and go, each seemingly more amazing than the last. It is difficult for non-technically minded instructors to keep up and make sense of it all. With so many variables to consider, one tried and true method of conceptualizing the possibilities for classroom application is mind mapping, a traditional mental organization technique that can help organize thoughts without preemptively trampling on new creative ideas (Cave, 2007). Mind maps are especially well suited for Web 2.0 implementation, since online tools can be used in numerous creative ways. Figure 7 exemplifies some tips and advice to consider.

When first considering the use of any particular Web 2.0 tool, keep in mind they can be used for yourself, or directly with your students. Experimenting with a personal blog, for example, is a good way to build your skills and manage the ever present, “I don’t have time” conundrum. Also remember that you need not buy into it all in one go. You can wade in



Figure 7. A mind map exemplifying tips and advice for implementing Web 2.0 applications

carefully, using Web 2.0 applications as sources of natural, authentic English (*in for a penny*), or dive in head first with a project production focus (*in for a pound*). Another key bit of advice is to keep your end goals clearly in mind. Which of the four skills do you want to teach? Different technologies lend themselves naturally to various skills (blogging for reading and writing, podcasting for speaking and listening, for example), but as a trained professional, you have the experience to teach any skill with any tool. Understanding this point opens up a world of creative possibility.

As an exercise in creative thinking, let us remove the technological aspect for a moment. Imagine you have a rock in your hand and are given the task of creating a communicative English lesson incorporating it. The mind map in figure 8 illustrates a few possible activities. What ideas can you add?



Figure 8. Creative thinking exercise- create a lesson incorporating a rock

You get the idea: Web 2.0 applications can be thought of non-threateningly in this way, as simple rocks. Put one in the center of a mind map and trust that your creativity and experience will carry the day, no matter how complicated things appear on the surface.

Accessing Web 2.0

Another way of approaching the often overwhelming abundance of free Web 2.0 resources is to narrow efforts on a few major ones that lend themselves most readily to ELT: blogs, wikis, web-based applications, podcasts, and social network services.

Blogs

Blogs are especially useful in helping English students practice their writing and reading skills. Recently, however, it has become quite easy to post photographs, audio, and video clips to a blog, increasing opportunities for four-skill language practice. A range of classroom applications is possible, from occasional reading or listening activities to semester-long class or individual blog creation projects. Free blogging services such as *Blogger*, *Wordpress*, or *Edublogs* make set-up quite easy. *21Publish*, a service geared especially for educational use, allows teachers to create up to 100 free blogs under one account. For an idea of what is possible in the realm of educational blogging, a site such as *SupportBlogging* is a great place to start. Hundreds of administrator, instructor, class project, and student blogs can be accessed here, enabling quick access of numerous inspirational models.

One such model is the *A Look at Bullying* blog created by ESL students at the University of Michigan (Peters, 2006). In this project, students practiced their content-based writing skills through investigating a serious social issue in depth. Blog posts investigated bullying from a number of different angles and generated opportunities for continued discussion and reflection through submission of comments. Educators at Teacher's College, Columbia University provide additional models of successful classroom applications of blogging through *TESOL 2.0* (Castelano, MacLeod, & Tarpey, 2008), a project designed to integrate media and technology for teaching English. One example of their work is the *Words and Images* blog (Tarpey, 2006), a site dedicated to teaching vocabulary visually.

Wikis

Like blogs, wikis are text-based websites that emphasize writing and reading practice for English learners, albeit in different ways. In contrast to the personal, diary-style prose of blogs, wikis foreground group collaboration, since wiki pages can be edited by any user. Writing on a wiki, therefore, tends to be more formal, polished, and goal-driven. Wikis usually consist of multiple separate pages connected with hyperlinks. They are simple to set up and use, eliminating any need for complex knowledge of web-design. Ideal for individual or collaborative writing practice, wikis facilitate the traditional write-peer review-revise-rewrite process approach. A good place to get started is *Wikispaces*, a free wiki creation service.

One model of successful usage is the *Movie Reviews* wiki (Veado, 2008), a site where students plan, write, revise, and edit texts collaboratively before publishing them to a class blog, thus using wikis as a tool for preparing polished public writing. For instructors looking for specific things to do with wikis, the *EFL and Web 2.0* wiki (Dude, 2008) provides several lesson plans for teaching upper intermediate students the basics of wiki use.

Web-based applications

Web applications (webapps) are software-like programs accessible on the Internet via your computer's browser. They work in a similar way to their computer-based counterparts, enabling users to access their work from any Internet-connected computer. Herein lies their greatest advantage, as webapps greatly facilitate collaborate work, in the same

manner as wikis do. The *Google* corporation is currently leading the way with online applications mimicking *Microsoft Office*. For professional development or classroom project use, *Google Docs* (word processor, spreadsheet, and presentation suite) provide a good place to start for exploring the possibilities. Other free webapps enable editing of photos online (*Flickr*), recording audio (*Podomatic*), or producing video content (*JumpCut*). Any of these can be used for interactive class or student projects.

A large compendium of webapps and suggestions for using them with students can be found at the *50 Web 2.0 ways to tell a story* wiki (Levine, 2007). The premise of this resource is to facilitate digital storytelling with 50 different free, online webapps. A single story, created and told using the 50 tools, is provided to demonstrate the strengths and weaknesses of each application.

Podcasting

Podcasts can be likened to episodic radio or TV programs and begin as digital audio or video files created on a computer. Sharing these files involves uploading them to a blog (or free podcast hosting service such as *Podomatic*) and automatically adding an RSS feed to enable syndication. Visitors then have several options for consuming content: subscribing to the RSS feed, listening directly online, or manually downloading individual episodes for offline consumption. For portability, downloaded content can be synced to a digital media player (such as an iPod).

Regarding ELT-related podcasts, there are generally two main types: short language focused mini-lessons and teacher-

based talk shows. The former may be useful supplements for your lessons, while the latter can enhance your teaching practice. With podcasts teachers have an inexhaustible supply of authentic language input. You could, for example, prepare students for the TOEIC listening test by listening to podcasters with varying English accents. Any content-based English course can also be supplemented with complimentary audio or visual material. Naturally, having your students produce a podcast is an excellent learning experience.

Research on ELT applications for podcasting is vast, as any Google search on the topic reveals. For those just getting started, books such as Richardson's *Blogs, Wikis, Podcasts, and Other Powerful Web Tools for Classrooms* (2006) or websites like *PoducateMe: Practical solutions for podcasting in education* (Ovadia, 2008) provide comprehensive sources of information. In addition, research done on using podcasts to develop English listening skills can provide instructors new to the medium with a firm theoretical foundation as well as ideas for implementation (Constantine, 2007; Man-Man, 2006; McCarty, 2006).

Social network services

Big social networking services such as *MySpace*, *Facebook*, and *Linkedin* all enable easy establishment of a web presence by allowing users to post their profiles online and then find and communicate with people labeled as *friends*. Once a list of friends has been created, it becomes possible to read each person's profile and follow what they are doing online (and vice versa) and share multi-media content. Joining a social network creates numerous real world communicative opportunities for ELT, especially if the service (such as

iTalki) is geared towards language learning. Recently, however, some of these big sites have been getting some bad press with regards to privacy issues (Barnes, 2006), so teachers interested in utilizing them are advised to proceed with caution.

As an alternative, numerous other social network websites offer a more focused experience. Video sharing on *YouTube*, *Google Video*, or *TeacherTube* presents a goldmine of interesting, natural English that can be utilized in numerous ways. Services such as *Flickr* or *43places* allow users to post and interact around photographs. A sister site to the latter, *43things*, focuses only on things people want to do, facilitating community building around shared interests. For lower level English students, a site like *Twitter* may be just the thing. Here users have a 140-character limit to write about what they are doing at any given moment, enabling real-world practice of the present continuous tense. Other free services, such as *Slideshare* or *VoiceThread*, allow users to easily post slideshows with video, audio, or text commentary. VoiceThread is especially well-suited for ELT practice given the ability of viewers to easily record audio, video, or text feedback, thus creating a four-skills global conversation on any submitted piece of work.

Additional Web 2.0 learning resources

Some other great places to begin learning about Web include the *Wikipedia* for basic definitions of technologies and terminology, *The Common Craft Show* for easy to understand explanatory videos of key Web 2.0 concepts, and the *Learning 2.0 program*, a free nine week online course consisting of 23 tasks designed to introduce and upgrade

basic skills. All of these resources are excellent sites for exploring possibilities before embarking upon any classroom related project commitments.

Conclusion

The evolution of web-based services and their convergence with modern learning theory create a compelling case for teachers to at least give them serious consideration. No longer limited to innovators and early adopters, online tools are more accessible and easier to use than ever, thus providing ELT educators with greater options for enhancing their teaching practice and helping empower students through learning opportunities that encourage interactivity and creative self-expression. Through focus on a few key technologies, organizational techniques such as mind-mapping, and a cornucopia of research, successful examples, and learning resources, instructors new to the Web 2.0 evolution are well positioned to begin their own explorations in a focused and efficient manner.

Jerry Talandis Jr. has been teaching English in Japan since 1993. He is currently interested in exploring Web 2.0 technologies for enhancing language teaching and professional development. Jerry can be contacted at <talandis@gmail.com>.

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Appendix

Links to resources mentioned in this article (in order of appearance)

Web 2.0 technology type	Service name	URL
Online RSS readers	Bloglines	<bloglines.com>
	Google Reader	<reader.google.com>
Blogging services	21publish	<21publish.com>
	Blogger	<blogger.com>
	Edublogger	<edublogger.org>
	Wordpress	<wordpress.com>
Wiki service	Wikispaces	<wikispaces.com>
Web-based applications	Google Docs	<documents.google.com>
	Flickr	<flickr.com>
	Podomatic	<podomatic.com>
	JumpCut	<www.jumpcut.com>
Podcasting	Podomatic	<podomatic.com>

Web 2.0 technology type	Service name	URL
Social networking	Facebook	<facebook.com>
	MySpace	<myspace.com>
	Linkedin	<linkedin.com>
	iTalki	<italki.com>
	YouTube	<youtube.com>
	Google Video	<video.google.com>
	TeacherTube	<teachertube.com>
	43 Places	<43places.com>
	43 Things	<43things.com>
	Twitter	<twitter.com>
	Slideshare	<slideshare.net>
	Voicethread	<voicethread.com>
Learning Web 2.0	Wikipedia	<wikipedia.com>
	The Common Craft Show	<www.commoncraft.com/show>
	Learning 2.0	<plcmcl2-about.blogspot.com>