

## **Instructional and Communication Tools: RSS Feeds**

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The digital revolution has created a unique generation of technologically sophisticated college students. Known as Generation Y, today's college students are children of the post World War II Baby Boomers, comprising America's largest demographic group (Rockler-Gladen, 2006). These students enter the university possessing unprecedented ease with computers and associated technologies, having been immersed in an electronic world from birth. Few have any memory of life without computers, cell phones, and digital music (Rockler-Gladen, 2006). For college students in the 21<sup>st</sup> century, these technologies have become as ordinary and as fundamental to daily routines as the telephone or television were to their parents (Jones, 2002). For example, in a recent study virtually all undergraduates reported owning a computer (98%) and having high speed Internet access (92%) (Caruso & Salaway, 2007).

Generation Y college students are coming of age in a world characterized by quick change, from striking global, demographic, and economic shifts to rapid fire images of such mass media as movies and television (which specifically target short attention spans). These lifelong experiences have uniquely primed Generation Y students to integrate, synthesize, and make sense of a chaotic world of information and input. In the words of the rock group REM, "It's the end of the world as we know it, and I feel fine" (Rockler-Gladen, 2006).

Marc Prensky (2006) coined the term "digital natives" for individuals who have been immersed in technology from birth. As such, they are fundamentally fluent in and comfortable with the digital universe of computers, video games and the Internet. Contemporary university students automatically and effortlessly adapt to a wide variety of technologies, from information searches to social networking. Technology is their native language, and is second nature to them.

In contrast, the "Baby Boomer" generation of their parents and university professors are more likely to function in this brave new technological world as "digital immigrants." While many will develop some technology fluency, for most it will never be a "native language."

One substantial impact of technology is the revolutionary change in communications between instructors and students, and between classmates and peers. Initially through email, and more recently through texting and associated functions (e.g., Twitter) and social networking (e.g., MySpace and Facebook), technology fundamentally has altered the ways in which students and professors interact on academic tasks and assignments. It may not be an overstatement to suggest that such traditional forms of social academic interactions as face-to-face meetings and phone contacts increasingly are perceived by students as anachronistic, much in the way their parents came to see radio broadcasts in the age of television.

These fundamental changes in information and communication technology are causing higher education to substantively review how it carries out its basic missions of teaching and learning (Caruso & Salaway, 2007). For example, so-called "hybrid" courses (courses that combine some degree of internet-only access to information and classmate/instructor with traditional face-to-face meetings) are growing in popularity with Generation Y students, many of whom increasingly expect to see such course offerings in their curricula (University of Houston, 2008). Early analyses of the efficacy of hybrid courses have

suggested that students academically perform better under such instructional formats (University of Houston, 2008).

Hybrid course structures represent a melding of technology with student preferences, as students report a preference for a moderate incorporation of technology in their classes while maintaining significant real-time face-to-face interactions with instructors and peers (Caruso & Salaway, 2007). Students report that having electronic access to significant components of their coursework gives them greater control, convenience, and flexibility in responding to academic assignments (Caruso & Salaway, 2007).

Perhaps one of the most substantial changes wrought by technology is electronic access to the totality of mankind's knowledge, access that is literally at one's fingertips via the keyboard and internet connection. In previous decades, when a student needed academic information, the default starting point was the university library. Students today see the Internet much as their predecessors viewed the library: as a functional starting point for knowledge searches and acquisition (Jones, 2002).

The near-universal access that present day students have to the world's information base makes it possible (if not mandatory) for successful students to stay current in many domains of study. To engage contemporary learners in higher education settings, college instructors must be able to meet students on their own terms; to interact with them on a technological common ground. Further, professors must use their own analytical skills, honed over years of academic knowledge acquisition and analysis, to provide their students with strategies to manage the explosion of information to maximal and efficient effect.

The advantage of easy access to the universe of information is accompanied by an accompanying downside. The potentially overwhelming amount of available information can result in the digital equivalent of the "needle in a haystack" problem. How does one sift through the expanding universe of information without becoming overwhelmed?

A particularly promising technology to help students manage the explosion of information in any given field is the emergence of "RSS feeds." Designed for users who wish to subscribe to timely updates from favored websites or to aggregate feeds from many sites into one place, RSS feeds automatically provide to subscribers full or summarized text, plus metadata such as publishing dates and authorship.

What Are RSS Feeds?

The acronym RSS refers to Real Simple Syndication which is an apt description of the function of this technology. With RSS, it is easy for organizations to publish online information, and for interested users to subscribe. Although RSS technology was used as early as 1999, it was not until recently that this technology has become commonplace. Today RSS feeds can be found on almost every major website. Beginning in 2003 with the explosion of weblogs ("blogs"), more and more websites have become syndicated.

RSS feeds are used not only by dedicated Internet publishers and organizations, but by traditional offline organizations and magazines. For publishers, RSS feeds represent an efficient process to dynamically distribute information. When a publisher updates content, the subscriber is automatically informed of the update, and is provided a link to the original article. This "publish and subscribe" model is not limited to text transmissions. The type of content currently being retrieved through RSS feeds is expanding to include PDF files, podcasts, and audio and video files.


In much the same way as one might scan a newspaper to locate the most interesting sections, RSS feeds scan the headlines from web sources to which one subscribes. This enables a subscriber to view the headlines on the monitor, read a synopsis of the article, and then click on the link to access the original full article on the Internet. In essence, the content comes right to the subscriber.

For the publisher of the feed, the benefit is that the subscriber may visit the publisher's website. For the subscriber, the benefit is the ability to stay current on dozens of websites by simply reviewing the feeds which are collected in their readers (also referred to as aggregators or feeders).

Subscribing to RSS Feeds

To subscribe to RSS feeds, one need only set up a reader which can be installed as software or created on a free, web-based service. Using a web-based reader enables subscribers to access the RSS reader from any computer with Internet access. A very popular web-based reader, *Google Reader*, provides an easy way of subscribing to feeds, organizing feeds, and sharing those feeds publicly on the Internet.

To set up a free account at *Google Reader* requires only a *Google* email account and password, and a few minutes. The opening screen of the reader provides the user with the ability to locate pertinent RSS feeds that are categorized according to emphasis (e.g., news, sports, fun). The search can be customized by typing in a search term and browsing for a specific interest area. Once an interesting feed is located, the user need only click on the link to subscribe. The current day's articles (headlines and short synopsis) will be displayed with a link to the full article. In the future, when the user returns to the account at *Google Reader*, any new articles from the selected feed will be available.

This, of course, is not the only way to subscribe to a syndicated site. Although one cannot subscribe to a regular web page, the user can identify those sites that provide RSS feeds as they display an RSS or XML tag or have a link for the XML version of the page. For example, when one visits the homepage of the U.S. Department of Education National Center for Education Statistics (<http://nces.ed.gov/index.asp>), an XML/RSS tag  appears at the bottom of the page.

**(See Figure 1)**

By clicking on the tag, the user is taken to a page displaying two URLs, one to the *What's New* feeds at the National Center for Education Statistics and another to the *Recent Publications* feeds. The page prompts the user to copy the URL into the reader, and is the most common procedure for subscribing to a feed.

Organizing feeds by placing them in descriptive folders is easily accomplished in *Google Reader*. When subscribing to multiple feeds, it is useful to categorize feeds and put them in appropriate folders. Another useful feature in *Google Reader* is the ability to share items that are particularly interesting and/or relevant for class instruction or for sharing with colleagues. *Google Reader* provides a public shared page with an URL that the user can provide (email or otherwise) to students, colleagues, and/or friends. The page can be easily modified at any time. Below is an example of a shared page.

**(See Figure 2)**

The ability to easily share text, audio and video files on a public page available to anyone with Internet access is a boon for educators and researchers.

#### Educational and Research Uses of RSS Feeds

Although RSS is just beginning to make headway in academia, educators are enthusiastic about its potential as a teaching tool. Professors can create public shared pages featuring RSS feeds for articles, podcasts and videos, subsequently directing students to visit the shared page. The shared page can be updated as new articles, reports or lectures become available and customized to feature "content specific" information. For example, the history professor might create a shared page with links to historical organizations and publishers, while the French professor's page could display feeds from organizations such as the French History Oxford Journal.

With the flourish of online educational blogs, professors also can use RSS feeds to subscribe to their students' blogs. Opening their reader, they can see which students have recently posted and click on their links to go directly to that blog, eliminating the need to keep checking to determine if postings are completed. Moreover, students can subscribe to each other's blogs and keep actively engaged with each other in discussion. RSS feeds can also be used in conjunction with other online collaboration tools, such as wikis, to notify subscribers of changes.

As a research tool, RSS feeds enable students and professors to monitor news and search engines for specific keywords by creating search feeds. When a mention of the keyword or phrase occurs in a news piece, the item will appear in the search feed. This eliminates hours of searching pertinent sites for new articles or reports and grant opportunities.

Universities and K-12 schools increasingly are using RSS feeds as a communication tool to update subscribers. Prospective and existing students are kept up-to-date about sports and other events, new courses, scholarships or any other news that is relevant and of interest to the student population.

Simply put, RSS feeds represent an alternate way to gain information from the web, saving the user time in internet searches. It features a more dynamic interaction with web content by bringing up-to-date information to the user's desktop. Perhaps more importantly, it brings another dimension to classroom

instruction, offering an effective way to interact with today's tech-savvy college students who expect technology to be part of a university course.

#### Implications and Conclusions

The fundamental role of the university in the 21<sup>st</sup> century remains unchanged: the maintenance, generation, and transmission of the accumulated knowledge and wisdom of mankind. However, what is rapidly changing are the mechanisms through which these functions take place.

In the 15<sup>th</sup> century, the great universities of Europe were irrevocably changed with the Gutenberg printing press, with educational accessibility to the world's warehouse of knowledge forever ensured. The technological revolution of the past three decades is similarly changing the function of the university as a gate-keeper to the universe of knowledge.

As has been the case for centuries, repositories of knowledge (whether in the form of physical books in brick and mortar libraries or digitized information as electrons in cyberspace) will continue to exist. What remains constant is the need of information guides to help learners acquire and evaluate the quality of that knowledge, to identify that which is best. In this role, the contemporary professor contributes significantly by helping students develop and structure RSS feeds. RSS feeds are an effective strategy for bridging the digital disconnect, allowing professors to engage students using the technology so instinctive to them.

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Figure 1 – NCES Subscription Information

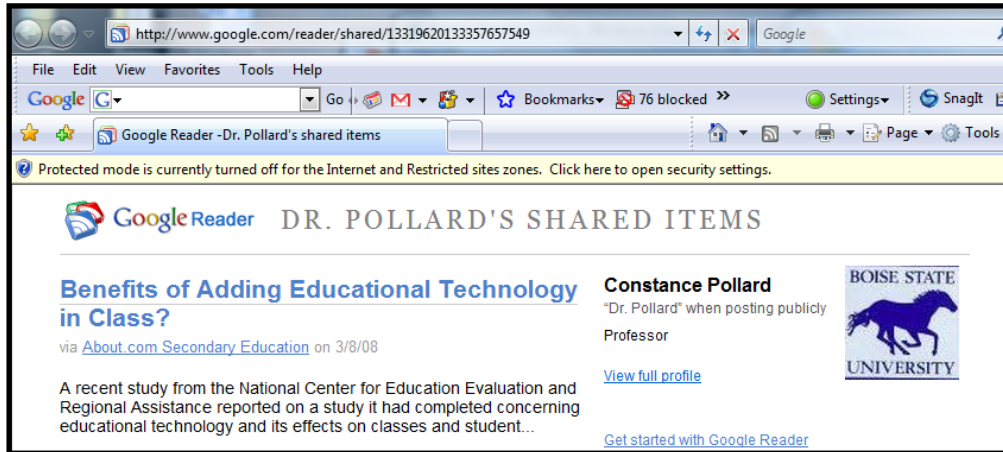


Figure 2 – Public Shared Page