



Kids and Information Spaces

>>> ON THE STICKINESS OF WIDGETS

I want my students to use our virtual library. I want them to discover our pathfinders, our databases, our online lessons.

But recently I made an important (if undocumented by research) discovery about people and information spaces.

People like to live in spaces (online and off) that they build, decorate, and make their own. My physical library is filled with student art and student work. My Springfield Township High School Virtual Library also contains a lot of student-generated content. It grows with student suggestions and advice.

But in reality, neither space is completely student-owned.

And so I began to question my approach regarding where I wanted my students to begin their information searches.

For most students—and most people—**Google** is an information starting point. I spent years encouraging learners to begin in other places. But I now recognize that everyone's favorite starting point and its alter ego, **iGoogle**, can lead students to far more than they imagined. In fact, it can lead them back to library resources. Furthermore it can teach them how to push, rather than pull information.

We can help students use this starting point in bigger, richer, smarter ways. Tools like **iGoogle**, combined with an assortment of widgets or gadgets, offer learners the ability to build, decorate, and customize their own information spaces.

What is a widget? What is push?

Widglets (also called gadgets in the world of **iGoogle**) are mini-applications displaying Web content that can be easily inserted onto a variety of Web spaces. Widgets are designed to be embedded in blogs, wikis, Nings, some browsers, and some search spaces. They are free. And they give Web searchers superpowers.

Several months ago, I introduced the **iGoogle** interface for two reasons—as a strategy for helping our seniors organize their time and their projects and as a way to introduce the value of push technology, a strategy students can use to make information they need find them.

We held **iGoogle** construction sessions with several classes. Most were amazed

- that they could customize **Google**, a space they live on;
- that they could program a search tool to work for them; and
- that they could create their own personal (and pretty) information spaces.



This widget/gadget/personal-portal building was the most popular activity of the semester. It was sticky! Students spent their down-time improving (dare I say “pimping”) their homepages. They changed themes; they added dictionaries and thesauruses, as well as sudoku, PacMan, and some virtual fish. They returned to show me discoveries and additional enhancements.

While I focused my teaching efforts on the gadgets of **iGoogle**,

other very worthy widget options include **Netvibe's** more than 100,000 feeds and widgets (<http://www.netvibes.com>), **Yahoo's** growing widget collection, (<http://widgets.yahoo.com>), and **Pageflakes's** browser-based alternative (<http://www.pageflakes.com>). **Pageflakes** offers a model Teacher Edition page (<http://teacher.pageflakes.com>).

Why did the widgets stick?

I expected students to be happy with the information structure I designed for them with our Virtual Library, and often they were. But **iGoogle** put them in control.

To some degree, young people already organize personal information spaces through their **Facebook** and **MySpace** pages, but those sites seldom seem to move beyond students' social needs. Nevertheless the concept of portal building wasn't foreign.

Throughout their school careers, we've suggested that students organize their notebooks and backpacks, keep an agenda, and maintain to-do lists. This time it was fun. It was personal. It was pretty. Gratification was immediate.

Among the first gadgets we suggested were those traditional but now more interactive to-do lists, calendars, calculators, sticky notes, and basic references—dictionaries, thesauruses, etc. Students and their teachers saw immediate personal value in these tools.

We then demonstrated the use of **Google Reader** to set up RSS feeds relevant to research or content-area classes or personal interests.

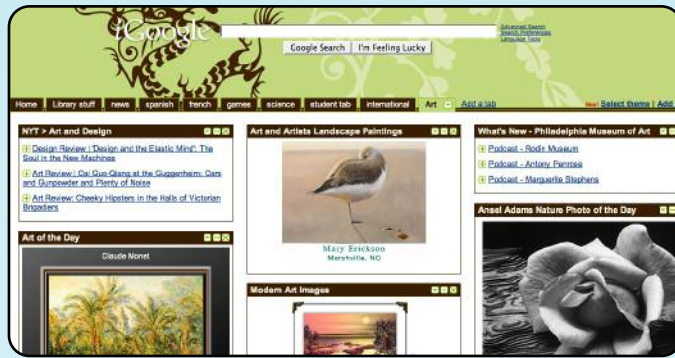
We showed how to use **Google Notebook** as a notecard tool. And we strongly suggested that their notebooks (or their sticky notes) include prominent links to the Virtual Library, databases they use everyday, relevant pathfinders, and their teachers' homepages. Students might also access these links as widgets from their own or their teachers' existing bookmarking services. For instance, a **del.icio.us** gadget can be set up for any **del.icio.us** user's bookmarks. The gadget can be programmed to display selected tags and sorted by date or name of link.

We discovered online stopwatches as a way to time presentations and countdown tools to keep track of project deadlines. The quote of the day, joke of the day, and image of the day options were plentiful and popular. Sometimes we didn't know exactly what we were looking for in our subject area tabs. We discovered the wonderful serendipity of the "I'm feeling lucky" button. Entering a subject in the search box of a new tab and clicking on that button, presented a wealth of useful and unexpected discoveries.

Learners have different needs, different abilities, and different interests. **iGoogle**'s gadgets seemed to have something for everyone.

We demonstrated the potential for making individual tabs for various classes, projects, or personal interests.

For students taking science this semester, we suggested these widgets: a periodic table, a hangman game for chemical elements, the search box from the **National Science Digital Library**, **NPR: Science Friday**, **Discovery News Top**



Stories, a feed for **Scientific American**, **Science Classroom**, **The New York Times Science**, **How Stuff Works**, and **NASA's Image of the Day**.

For French, we suggested **Audio Word of the Day**, the RSS feed from **Le Monde**, **France Video Map**, **Go Radio** (French), a French dictionary, the Eiffel Tower Webcam, **Flickr France** photos, **Napoleon Bonaparte's Quotes**, and **LanguageSpeaker's Spoken Translations**.

For our Global Studies classes, we suggested news feeds from the various regions of the world, **Time's Top World News Stories**, **BBC News World Edition**, **The New York Times Middle East**, **International Herald Tribune's** various regional sections, and **Flags and Facts**.

We encouraged art students to consider a tab that might include **Art of the Day**, The Metropolitan Museum of Art's **Exhibit Podcasts**, **Oil Painting of the Day**, **Our Earth as Art**, **What's New** (Philadelphia Museum of Art), **The New York Times Art and Design Feed**, and **Fractal of the Day**.

Our students have separate lives outside of school and spend much of that time online. It wasn't long before students discovered **iGoogle's** impressive array of game gadgets. We suggested that they set up a separate tab for puzzles and games. And we suggested that they

might include some games, like that chemical element hangman, in their subject area tabs.

Since our early construction experiences, **iGoogle** dramatically

A SHOPPING LIST FOR WIDGETS AND GADGETS

Shopping for gadgets and widgets is fun. Choose some of these for yourself or recommend to students.

Useful Reference Gadgets/Widgets

Britannica
Wikipedia
Encyclopedia Mythica
 Periodic tables
Dictionary.com
Online English Grammar
How Stuff Works
Quote of the Day
Work of the Day
Google Map Search
Ask A Word
Lyrics Search
eBooks Search
ALA RUSA Best Free Reference Web Sites (a custom Google search)
Reference.com
Poem of the Day (from the Library of Congress)



Handy Gadget/Widget Tools

Calculators
 Countdowns (to specific dates)
 Stopwatches (for timing presentations)
 To-Do Lists
 Calendars
 Metric conversion tools
 Currency Conversion
MapQuest
Google Notebook
Google Mail
Google Reader
Google Docs and Spreadsheets
del.icio.us
LibraryThing (great for libraries, too)



News Gadgets/Widgets—So many choices!

Wall Street Journal
New York Times
Newsweek
NPR
BBC
Reuters
CBS
NBC
ABC
White House News
Fox



Games and Puzzles Gadgets/Widgets

New York Times Classic Crossword
Word Search Puzzle Builder
Hangman (various themes)
Nick's Mathematical Puzzles
Who Wants to Be a Millionaire?
Optical Illusions

increased its themes (<http://www.google.com/ig/directory?hl=en&type=themes>), or opening banners, from the limited original number of six or so. Now we have many pages of themes from which to select. Students can use themes to decorate and distinguish the tabs they create for their various classes or extracurricular interests. My own art page has a Chinese woodcut theme. My science tab has a planetary theme. My international tab features a globe theme.



The students loved decorating and exploring how widgets can make online life easier, more interesting, and prettier. But I was basking in the information skills they were learning unintentionally—the best way—through play.

Instructional widgets or gadgets help students organize their information worlds. As information managers, students can be in control, able to determine which information tools are most relevant to their needs and when. They are able to position and prioritize their resources and their tools for productivity. Information is growing far too big to be managed with any one-box search. Widgets illustrate the interactive potential for twenty-first-century portals and how far we have moved from a standard 1990s random, one-box search approach. Widgets allow learners to select and organize multiple specialized boxes, and they help demonstrate the potential of push strategies to simplify information access. Students no longer have to visit twenty different Web tools or search boxes when their resources can be selectively pushed to one portal.

What Are the Issues?

iGoogle requires students to sign up for a Gmail or an iGoogle account. Doing so was no problem for my high school students, but it might pose a dilemma in schools that do not allow or promote student e-mail or registrations of any sort. Also, as with Google's search engine results, not all gadget results are school-appropriate, for example the **Sports Illustrated Swimsuit Model of the Day**. Teachers may need to open discussions regarding student selections and guide students away from the slightly icky or commercial stuff.

Recently one of my gadgets, attached to a newly defunct Web site, hijacked my homepage. Whenever I visited iGoogle, I was instantly transported to the site for the company that hosted the gadget. Once I figured out how to remove the offending gadget, I was back in business. Downloads can be a bit risky, but the benefits clearly outweigh those risks.

We discovered it was important to sell teachers on widgets first. We first demonstrated iGoogle at a faculty meeting and many teachers were instantly sold on it as both a personal and professional organizational tool. Teachers loved setting up Google Readers for news feeds relevant to the subjects they taught. They took immediately to the to-do lists, notebooks, and countdown tools. Some used it to set up shared Google calendars and as an easy way to reach the Gmail and RSS feeds to which most already subscribed.

What's next for widgets?

We can do far more to help students create their own personally important and attractive information spaces to support their work as learners.

I want more widgets. I want widgets or gadgets that lead learners to more information sources—the fun, the serious, the light, and the scholarly.

Brave folks will be able to follow Google's instructions for creating their own gadgets, but I do not have the courage or the talent. Google offers a tools page for developers at <http://code.google.com/apis/gadgets/index.html> that includes built-in Java-script libraries.

Nevertheless I believe we can and need to widgetize all our information resources a la iGoogle or Pageflakes or Netvibes or Yahoo Widgets. Why should

library resources be less convenient to access than the **Sports Illustrated Swimsuit Model of the Month**?

I want a widget for our catalog, and I want a widget for each of our databases.

A number of libraries now organize their own virtual libraries around widgets. They add LibraryThing widgets to promote new titles, recommendations, and specific collections. Dublin City Public Library in Dublin, Ireland, (<http://www.pageflakes.com/dublincitypubliclibraries>) uses the browser Pageflakes to create a dynamic widget-driven site. Widgets present the library's calendar, photographs, podcast lectures, and press releases and solicit user feedback.

The Unquiet Library at Creekview High School in Canton, Georgia, offers photographs; RSS feeds to local newspapers; a tag map for their del.icio.us links; a lava lamp; a search box for Google Books, Google Scholar, and Google News Archive; and a LibraryThing widget on its Pageflakes homepage, <http://www.pageflakes.com/theunquietlibrary>.

I want learners to think about the databases that make the most sense to their current information needs. I want them to be able to pull those databases into their own information spaces as widgets.

For instance, a student starting an upper-level English class in January should be able to drag literary criticism and other database widgets (Gale's Literature Resource Center, JSTOR, Bloom's Literary Reference, EBSCO's Literary Reference, etc.) onto his own page for the spring semester. She should be able to skootch these IP or password authenticated widgets to the top of her page when an assignment is pressing and skootch them down when one is not. I want the vendors to know of this need. I want widgets to be a feature included in my subscription costs. I want them to create these widgets for us.

For more information, see this wonderful new book: Williams, Robin T., and David V. Loertscher. **In Command! Kids and Teens Build and Manage Their Own Information Spaces and Learn to Manage Themselves**. Hi Willow/LMC Source, 2007. 90p. \$25 pb. 978-1-933170-36-0.

[*Author's Note:* H Songhai, a media literacy teacher at Hope Charter School in Philadelphia, offers a presentation on widgets as an instructional strategy in his Songhai Concepts blog at <http://songhaiconcepts.blogspot.com/search/label/iGoogle>.]■

Joyce Kasman Valenza is the librarian at Springfield Township High School in Erdenheim, Pennsylvania, and her video series, *Internet Searching Skills*, was a 1999 YALSA Selected Video for Young Adults. Her newest book is *Super Searchers Go to School* (Information Today, 2005). Valenza's *Virtual Library* won the IASL School Library Web Page of the Year Award for 2001, and her blog won the Edublog Award for 2005. An active member of several professional organizations, she speaks regularly about issues relating to libraries and thoughtful use of educational technology. She recently earned a doctoral degree in Information Science at the University of North Texas.