Weaving the Web 2.0

RSS and the Future of Chemical/Science Information
Though it is still on the “bleeding edge” for most web users, RSS has become one of the Web 2.0 technologies that are impacting how information is delivered, shared and received.

This presentation will: 1) explore the role that RSS is playing in an increasingly complex web landscape of blogs, wikis, search engines, tagging folksonomies, and more recently in the delivery of audio/visual content; 2) examine how libraries, publishers, A&I database producers, and other information providers are utilizing RSS to deliver content to students and researchers in chemistry and other sciences, and if those end-users are taking advantage of these opportunities; and 3) speculate on the effects that RSS-based technologies will have for library and research services, particularly in response to our users' evolving information needs and the new and changing devices they will be using to manage their information.
In 25 Minutes.....

◊ Explain the role that RSS is playing in the web landscape

◊ Examine how libraries, publishers, A&I services are utilizing RSS

◊ Speculate on impact that RSS will have on library and research services
In 25 Minutes.....

♦ Explore the role that RSS is playing in the web landscape

◊ Examine how libraries, publishers, A&I services are utilizing RSS

◊ Speculate on impact that RSS will have on library and research services
R(eally) S(omething) S(omething)

- “...a family of web feed formats, specified in XML and used for Web syndication.” **

  - .90, .91, .92, 1.0, 2.0
    - ATOM – another format

  - XML - Extensible Markup Language
    ≈ HTML

** Wikipedia
<rss version="2.0">
  <channel>
    <title>Washington Post - Science</title>
    <description></description>
    <language>en-us</language>
    <ttl>20</ttl>
    <image>
      <title>Washington Post</title>
      <width>140</width>
      <height>20</height>
      <link>http://www.washingtonpost.com?nav=rss</link>
    </image>
  </channel>
  <item>
    <title>Pork: Good Enough for Jefferson, and You</title>
    <link>http://www.washingtonpost.com/wp-dyn/content/article/2006/03/16/AR2006031601958.html?nav=rss_nation/science</link>
    <guid isPermaLink="true">http://www.washingtonpost.com/wp-dyn/content/article/2006/03/16/AR2006031601958.html?nav=rss_nation/science</guid>
    <pubDate>Fri, 17 Mar 2006 00:00:00 EST</pubDate>
    <description>The frenzied push for legislation to abolish earmarks -- through which lawmakers slip money for local projects into big spending bills -- appears to have subtly dodged another misguided reform effort.</description>
    <author>Al Kamen</author>
  </item>
  <item>
    <title>New Images Support 'Big Bang' Theory</title>
    <link>http://www.washingtonpost.com/wp-dyn/content/article/2006/03/16/AR2006031601839.html?nav=rss_nation/science</link>
    <guid isPermaLink="true">http://www.washingtonpost.com/wp-dyn/content/article/2006/03/16/AR2006031601839.html?nav=rss_nation/science</guid>
    <pubDate>Fri, 17 Mar 2006 00:00:00 EST</pubDate>
    <description>Scientists said yesterday they have found the best evidence yet supporting the theory that about 13.7 billion years ago, the universe suddenly expanded from less than a trillionth of a second.</description>
    <author>Guy Gugliotta</author>
  </item>
</rss>
What is RSS?  →  What RSS does?

New feed content pulled back into reader

http://

Reader “pings” to check if feed (page/site) has been updated

Titles | Dates | Links | Authors | Content**
READERS

- Select, de-select, organize feeds
- Check sites for new content
- Retrieve headlines, links, etc.
- New content in **bold**
- For web, desktop, mobile; PC/Mac/Unix/Linux, platform-neutral, etc.
- Readers in web browsers: Safari, Firefox (Sage)
- Free → ~$30

RSS FEEDS

- Update as associated web pages are updated
- Amount of content in reader varies
  - No guarantee to access full content (*Wall Street Jrl.*)
- Locating feeds:
  - Web sites: page margins & site maps
  - Text or graphic cues
  - Google
  - Syndic8, Feedster, NewsIsFree, Technorati
  - Autodiscovery

Subscribe

Enter the URL of the blog you wish to subscribe to, and Bloglines will attempt to locate the appropriate feed. An easier way to subscribe to blogs and newfeeds is to use the Easy Subscribe Button, which makes subscribing to a blog you’re viewing just one click away.

Blog or Feed URI: feedburner.com/cen_latestnews

Subscribe

http://feeds.feedburner.com/cen_latestnews

Available Feeds

Chemical & Engineering News: Latest News
A member-supported weekly magazine of the American Chemical Society, Chemical & Engineering News is a forum of the chemical world including science and technology, government and policy, and business.

Mon, Mar 20 2006 3:11 PM Preview this Feed

Options

Folder: Science News/Magazines
Updated Items: Ignore
Display Preferences: Default
Monitored by Bloglines Notifier: None
Displayed in Mobile: None
Access: Public

Notes:

Subscribe
Actavis Targets Generics Rival Pliva

Consolidation activity in the generic drug industry heats up

Lisa M. Jarvis

Takeover activity in the generic drug industry is reaching fever pitch as companies jockey for position in a highly competitive market. In the most recent consolidation move, Iceland-based Actavis has made an unsolicited bid for the Croatian generic drug firm Pliva.
RSS and Web 2.0

Wikis
- Wiki updates

Blogs
- New blog entries

Social Tagging/Bookmarking – [Folksonomies]
- Newly tagged sites

Podcasts
- iTunes

RSS Reader
- iPod
RSS & the Library Web

A&I Databases
- Search Results
- Library News/Blog
  - News

E-Journals
- New Articles/TOC’s

News Sites & Engines
- News Articles
  - plus...
    - Book Catalogs / DB’s
    - Learning Objects
    - Prof. Societies
    - Patents
    - .Gov’s
    - Jobs

RSS Reader
In 25 Minutes.....

◊ Explore the role that RSS is playing in the web landscape

♦ Examine how libraries, publishers, A&I services are utilizing RSS

◊ Speculate on impact that RSS will have on library and research services
Libraries

- Blog + RSS → Javascript = Headlines
- New Book Lists
  - CWRU, U Alberta, RIT
- RSS Workshops (Current Awareness)
  - MIT, UCSD
- Feed Directories & Lists
  - UCSD, UCSC
Finding Water Quality Information at UCR

- Water Quality Standards
  - Safe Drinking Water Act
  - Water Quality Analysis
  - Water Quality Inventories and Assessments
  - Water Usage

Regulations
- Clean Water Act
- Safe Drinking Water Act

Local Information
- California Department of Water Resources (DWR)
- U.S. Bureau of Reclamation
- Metropolitan Water District (MWD)
- Coachella Valley Water District
- City of Riverside Public Utilities - Water (Quality reports from left side pop up menu)

Latest Articles on Water Quality (From Compendex)
- Surface analysis of Chesapeake Bay water quality response to different nutrient and sediment loads
- Coastal water quality assessment by self-organizing map
- Assessing the improvement of the Bilbao estuary water quality in response to pollution abatement measures
- Water quality monitoring using satellite image data: A case study around the Salt Lake in Turkey
- Pre-operational monitor system of large inland lake water quality with MODIS imagery
- Acid-volatile sulfide oxidation in coastal flood plain drains: Iron-sulfur cycling and effects on water quality
- Assessment of chemical quality of ground waters exemplified in major groundwater basin 332
- Laboratory and field evaluation off a dual use on-line monitoring system for enhancing water distribution system quality and security
- Effect of regulated deficit irrigation on water use efficiency and fruit quality of pear-jujube tree in greenhouse
- Characterization and adsorption properties of the chelating hydrogels derived from natural materials for possible use in the improved groundwater quality
- Impacts of blending ground, surface, and saline waters on lead release in drinking water distribution systems
- Characterization and environmental management of storm water runoff from road salt storage facilities
Recommended RSS Feeds for Science/Engineering News & Research

UCSD Feeds (right-click on the XML to copy)

- XML Science & Engineering Library News
- XML Jacobs School of Engineering News - Top Stories (department-specific feeds)
- XML Blink (UCSD Staff Portal) - new and updated information

Feeds for Science/Engineering, by category:

---new: EDP Science Journals, ProQuest's Digital Dissertations, Business Source Premier

<table>
<thead>
<tr>
<th>Science Journals</th>
<th>Science News &amp; Magazines</th>
<th>Aggregated &amp; Customized News Feeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>[updated 3-23-06]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Databases</td>
<td>Podcasts</td>
<td>Science Jobs</td>
</tr>
<tr>
<td>[updated 3-21-2006]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patents</td>
<td>Books &amp; Conference Proceedings</td>
<td>Scientific &amp; Professional Societies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[updated 3-20-2006]</td>
<td></td>
</tr>
</tbody>
</table>

Getting Started with RSS

Questions about this site? Report broken links? Want to suggest additional feeds for this site? Contact the Chemistry Librarian
Databases

Custom / Preset Search Results

- EiV2 – Compendex, INSPEC
- PubMed
- Astrophysics Data System
- arXiv
- EBSCOhost – Academic Search Premier, Business Search Premier, etc.
- Digital Dissertations
Bone morphogenetic protein-2 suppresses invasiveness of human breast cancer cells with the inhibition of MMP-9 secretion.

Toda D, Ota T, Tsukuda K, Watanabe K, Fujisawa T, Murakami M, Nanto M, Shinmei N.

Gefitinib decreases the synthesis of matrix metalloproteinase and the adhesion to extracellular matrix proteins of colon cancer cells.

Toda D, Ota T, Tsukuda K, Watanabe K, Fujisawa T, Murakami M, Nanto M, Shinmei N.

Differential glycosylation of gelatinase B from neutrophils and breast cancer cells.


Matrix metalloproteinase target family landscape: a chemometrical approach to ligand selectivity based on protein binding site analysis.


Role of matrix metalloproteinase-7 (matrilysin) in human cancer invasion, apoptosis, growth, and angiogenesis.

Ishii N, Yamamoto H, Adachi Y, Murayama Y, Shinomura Y.
Chemistry & Science News

- Newspapers
  - NYT, WP, etc.
  - Chronicle Higher Ed.

- Custom News Searches
  - Yahoo News
  - Google News
  - Moreover

- Science News
  - ScienceNOW (AAAS)
  - news@Nature.com
  - New Scientist
  - Scientific American
  - Chemical & Engineering News
  - Physics Today
  - Technology Review
  - Wired
News by Subject

AGRICULTURE
Crops, Food, Forestry...

ARCHAEOLOGY
New World, Old World

ATMOSPHERIC SCIENCE
Climate, Pollution...

BIOLOGY
Genetics, Cells, Zoology...

BUSINESS & ECONOMICS
Health Care, Grants...

CHEMISTRY & PHYSICS
Energy, Atoms, Superconductors...

EARTH SCIENCE
Geology, Oceanography...

EDUCATION
Science Literacy, K-12, Graduate...

MATHEMATICS
Models, Systems, Chaos...

MEDICINE & HEALTH
Cancer, Diet, Drugs...

POLICY & ETHICS
Patents, Treaties, Law...

SOCIAL & BEHAVIORAL
Addiction, Parenting, Health...

SPACE & PLANETARY
Astronomy, Comets, Missions...

TECHNOLOGY & ENGINEERING
Electronics, Internet, Nanotechnology...

RSS Feeds

EurekAlert! now offers eighteen customized RSS feeds featuring cutting edge developments in science and technology. The feeds may be downloaded from http://www.eurekalert.org/.

What is an RSS Feed?

RSS is a format for syndicating news and other content on the Web so you may subscribe to and view RSS feeds from various sources. It can be downloaded for free or for a small charge from the web.

What RSS feeds does EurekAlert! offer?

EurekAlert! offers nineteen RSS feeds, including:

- Breaking news (all topics)
- Agriculture
- Archaeology
- Atmospheric Science
- Biology
- Science Business
- Cancer
- Chemistry, Physics, and Materials Sciences
- Earth Science
- Education
- Infectious and Emerging Diseases
- Mathematics
- Medicine & Health
- Nanotechnology
- Oceanography
- Science Policy
- Social & Behavioral Science
- Space & Planetary Science
- Technology, Engineering, and Computer Science

http://www.eurekalert.org/
Industrial, medical uses drive demand for chemical sensors
Control Engineering, IL - Feb 28, 2006
Cleveland, OH—US demand for chemical sensors is expected to grow 7.4% a year to $4.2 billion by 2009, a study by Freedonia Group indicates. ...

Chemical sensors sniff out disease
University at Buffalo Reporter, NY - Feb 16, 2006
... a rugged, inexpensive Breathalyzer-type device that, just like the nose of a human—or other mammal—will contain thousands of chemical sensors "trained" to ...

New sensor detects chemical, biological, nuclear and explosive ...
PhysOrg.com, VA - 3 hours ago
... sensing technology, have developed a suite of sensors for national security applications that can quickly and effectively detect chemical, biological, nuclear ...

Chemical Sensors, Neural Network for Human Breath Analysis
Medgadget.com, CA - Feb 17, 2006
... In the same way, the UB device will contain individual chemical sensors, perhaps as many as a million, which collectively will produce a pattern revealing the ...

Pentagon looking for cyber-insects
Mobilemag.com - Mar 20, 2006
... bidder will have to be able to deliver an insect within 5 meters of a target 100 meters away and transmit data back via chemical sensors, microphones or cameras ...

L-3 Communications Acquires Two Leaders in Threat Detection for ...
Business Wire (press release), CA - 7 hours ago
... advanced landmine detection and state-of-the-art hidden motion detection sensors. ... but can find trace levels of any explosive, regardless of chemical composition ...
Are users RSS’ing?

- 5-10% of Internet Users
  - Evolving technology
    - Still considered “bleeding edge”
  - Standards (?)
  - User statistics (?)
  - Delivery tool vs. creation tool (blogs, wikis, databases, news, ...)
  - Information overload
    - More info management training needed to support KM?
- Killer app?
  - IE 7.0 release - 2006

http://www.pewinternet.org/pdfs/PIP_Data_Techterm_aware.pdf
http://www.pewinternet.org/pdfs/PIP_blogging_data.pdf
In 25 Minutes.....

◊ Explore the role that RSS is playing in the web landscape

◊ Examine how libraries, publishers, A&I services are utilizing RSS

♦ Speculate on impact that RSS will have on library and research services
What’s Next

- More Web 2.0 tools
- Knowledge management, collaboration, social computing, communication
- More (smaller) devices
- Mobility, customization
- More information
- More to harvest/collect
What’s Next?

- More RSS-enabled systems: OPACs, databases, publishers ...
- Improved feeds
  - Filtering options
  - Chemical structures, numeric data, spectra
- Better readers, more integrated functionality
- Technology evolves
  - RSS 2.0 → RSS 3.0 → ???
  → “Better Than RSS”
What’s Next (for the Library)?

- Ongoing
  - User Instruction
  - Librarian Current Awareness

- Understanding Web 2.0 “big picture”
  - RSS plays a role
  - Customization: delivery, interfaces, mixing

- Web 2.0 ↔ Library 2.0