



RSS Feeds and Consumption of Information  
Final Report  
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*John Lennon said the Beatles were more popular than Jesus. No argument, it was true, they were. Well, even though the vast majority of people have never heard of Steve [Gilmor] or myself, we're more influential than John Lennon or Bob Dylan ever were. We're media hackers. –Dave Winer<sup>1</sup>*

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<sup>1</sup> Winer, Dave. Scripting News. <http://archive.scripting.com/2005/06/08#When:11:43:14AM> . Last accessed Friday June 10<sup>th</sup>, 2005.

## RSS Feeds and Consumption of Information

Really Simple Syndication (RSS) is a relatively new technological entity, but it is one that is currently revolutionizing the way in which news and information is disseminated and consumed. A very basic definition of what RSS is and does requires a working knowledge of the internet. The internet is populated with myriad websites containing information and news items – professional / official in nature and amateur / informal in nature. Examples of the first group might include Reuters, the Associated Press (AP), Yahoo, MyWay, BBC, CNN, and the online versions of nearly all newspapers which can justify the addition financially. Examples from the second category include news commentary sites, “blogs,” opinion journals, personal websites, and advertisements or product updates from companies. This paper will briefly outline the history of RSS and its brethren formats, attempt to recapitulate in laymen’s English, and speculate about the effect of this development and its relationship to other modular information consumption strategies.

### Brief Technical History of RSS

Dave Winer is recognized as being the creator and designer of many of RSS file type iterations, and until 2004 sat on the Advisory Board for RSS held at the Berkman Center for Internet & Society at Harvard Law School, where he had transferred the ownership of his RSS 2.0 specifications in July of 2003. If Winer is considered the prime mover behind the RSS format, the first step in the birth of RSS was his creation of the “scriptingNews” format in 1997. Netscape, the internet-related applications company,



developed a format called RSS 0.90<sup>2</sup> in 1999 to use with a commercial website. Winer updated his scriptingNews format to version 2.0b1, including the functionality of RSS 0.90, and suggested the implementation of its abilities to Netscape in an unofficial capacity. In the same year, Netscape revamped their RSS specifications to incorporate features from Winer's new 2.0b1 version and RSS 0.91<sup>3</sup> was born.

Userland, the entity behind the original scriptingNews format, adopted the RSS 0.91 specifications and dropped the alternative name, but continued working on the format. Netscape dissolved its RSS team entirely around the end of 1999. In June of 2000, Userland released its own set of specifications for RSS 0.91, but in August, RSS 1.0 was published as a proposal. RSS 1.0<sup>4</sup> was not developed by Userland, in other words, but by an independent group headed by Rael Dornfest. It breaks the chain of name-change and upgrade-based transformations, and introduces a new format into the genetic material of RSS. Meanwhile, Winer continued developing RSS at Userland, coming up with RSS 0.92<sup>5</sup> in December of 2000. The history begins to slow its pace at this point. RSS 0.93<sup>6</sup> never came to fruition, despite being given forum in April of 2001. In 2002, MetaWeblog API joined RSS 0.92 with another format called XML-RPC in order to provide a more potent method of updating content on the internet, mainly in the interest of frequently updated sites (especially "blogs"). Winer left Userland, but continued development on RSS by creating RSS 2.0<sup>7</sup> in September of 2002. Finally, in July of 2003, the RSS 2.0 specifications were released via the Berkman Center for Internet & Society at Harvard

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<sup>2</sup> RSS 0.90 is basically an amalgam of an RDF header combined with standard XML.

<sup>3</sup> RSS 0.91 includes scriptingNews 2.0b1 script tags and removes the RDF header.

<sup>4</sup> RSS 1.0 is a modular format with an RDF header and which uses namespaces.

<sup>5</sup> RSS 0.92 is basically RSS 0.91 with "optional elements."

<sup>6</sup> RSS 0.93 does not exist

<sup>7</sup> RSS 2.0 is a build of RSS 0.92 with newly added functions. It is also known as RSS 0.94.



Law School under a “Creative Commons” license. RSS development is still underway, though it has become increasingly complicated in the number of iterations and functions being sought by various branching development paths.

#### A Further Explanation

RSS sounds like a hyper-technical computer related internet format that is really only accessible to people who would understand the above history at first glance. This, thankfully, is not the case. RSS is a highly user-friendly system that has and is currently rapidly changing the face of interactivity on the internet. As it progressed through its various technical builds and specifications, the aim was always to make a very complete, widely implemented (or implement-able), free to use format for information syndication. What this means for the average internet user reaches far and wide in a number of modes. This paper will concentrate on just a few of them.

RSS grants the ability to any website, willing to spend the time to arm itself with the format, to effortlessly “syndicate” their content. This means that with an existing technical staff, or with a small amount of exertion on the part of a single webmaster for a small site, audience access is profoundly increased. How is this so? RSS basically allows an internet user to tap into the real-time flow of updates on any RSS enabled website, in a time frame convenient to the individual. Why is this change a large step forward? It completely changes the way in which information is made available to the public.

RSS feeds are received and interpreted by a number of programs. At this point, there are internet browsers with RSS capabilities built in, on both PC and Macintosh platforms. On the PC end there are programs like Mozilla’s Firefox internet browser and Thunderbird email client which incorporate RSS feeds seamlessly into the existing



functionality of the programs. In Thunderbird, for example, RSS feed updates are displayed in an inbox environment alongside normal email, as though the user is receiving email updates from a news service. In Firefox and Safari, 2 very popular web browsers, RSS feeds are used as dynamic – or “live” – bookmarks. In other words, clicking on the same bookmark will show a drop down list of the most recently updated items, despite being a link to the same location on the internet. There are also news aggregator programs, which are standalone versions of the concepts integrated in the programs aforementioned. Any internet user who is capable of copying and pasting a hyperlink is already capable of entering into the world of RSS subscriptions.

Redefining the timeline on which information is available has a large impact on news items. During a number of recent large news stories, including the tsunamis around Sumatra, RSS subscribers were aware of the changing situations before news channels on television were able to mobilize for a telecast. Reuters and AP news feeds are released as they are filed, and the time gap between breaking news and the ripple effect into society’s consciousness is decreasing as a result. When a consumer of news knows what is happening around the world before the news programs release the information over the airwaves, an interesting dynamic is in play.

On the other end of the timescale, a consumer of information may view RSS feeds as a method of customizing their information experience. For media where timing is not a critical component, the use of RSS allows subscribers to collect the updates and peruse them at their own leisure. In other words, a person seeking news is capable of setting up a system where the news they seek is delivered to them as it becomes available. No longer must a news seeker actively go to the news. The news now comes to the news seeker, in a



more than timely fashion when it counts, but in a convenient fashion nonetheless for the schedule conscious public.

### The Information Consumption Trend

People are demanding that information be tailor-fit to their lives, that it stream into their realm of knowledge both unobtrusively and as fast as possible. This desire for control over information is visible in the new markets for home appliances such as TiVO<sup>8</sup>. As the TiVO website so proudly claims, “It’s about time. And choice.”<sup>9</sup> That is the current trend in information consumption, and RSS fits perfectly into the lineup of convenience.

RSS has now been implemented in a similar fashion for radio programs. Since RSS is capable of delivering a link as it is updated, if that link points to an MP3 file, then automated downloading is possible. It is rather a simple application, but it allows a larger customer base to form around a show that is live at inconvenient times during the day, and even to expand their listenership around the world – all with the RSS format. This creative use of RSS is known as “podcasting,” which derives its name from the popular iPod MP3 player. Instead of broadcasting or webcasting, syndication is moving to a highly personalized timetable. Podcasting allows a person to partake of content whenever and wherever they wish once the content has been updated.

Due to the free nature of the format, the internet community is not bound by financial restrictions. A one man website is just as capable of syndicating its content as a major news organization. This allows for interesting interplay between a news-savvy general public and the mainstream media outlets, where coverage, focus, evidence, and

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<sup>8</sup> TiVO is an electronic appliance that acts as a recorder of live television, allowing digital playback later.

<sup>9</sup> The TiVO Homepage. <http://www.tivo.com/0.0.asp>. Last accessed Friday June 10<sup>th</sup>, 2005.



even first-hand accounts of natural disasters are made theoretically available to the same audience from both sources – and sometimes RSS-based freelancers provide exclusive information (video content, etc) to which the news companies may not have access. This may have an adverse effect on the institution of the media as a controlling mechanism in society's thoughts about particular topics. It also seems to grant instantaneous credibility to individuals on the internet who syndicate themselves. This can of course be problematic when said individuals are not credible. However, the ability of any one person in society to influence their news media actively is greatly increased by the use of RSS in internet-community conversations, and that is a large benefit reaped.

The RSS movement is probably only beginning, but it is certainly an interesting change in the way that people consume information. With new versions of RSS-based syndication languages being researched (Atom, etc), and the lack of financial burdens on upgrading to each new technological plateau, the information boom is merely making one more bend in its exponential growth. Soon one will have to combat information overload instead of lack of information. Again, whether or not this constitutes a glowing future or a threat to information access in coming years is uncertain. What RSS absolutely represents, however, is a total revolution in the way people around the world are able to bring information and media into their lives – a revolution in controlling sources, timing, and power as an individual to interact with the mass media machine.



Lexicon of Terms*	
Blog	A weblog (usually shortened to blog, but occasionally spelled web log) is both a web application used for entering, modifying and displaying periodic posts (normally in reverse chronological order) as well as the totality of content constituted by these posts. Initially, weblog content was manually written on personal web pages, but soon after their appearance, weblogs began to be implemented from web-based software, and this is the norm today. The term <i>blog</i> came into common use as a way of avoiding confusion with the term server log.
RSS	RSS is a family of XML file formats for web syndication used by news websites and weblogs. The acronym stands for one of the following standards: Rich Site Summary (RSS 0.9x), RDF Site Summary (RSS 0.9 & 1.0), or Really Simple Syndication (RSS 2.x).
XML	The Extensible Markup Language (XML) is a W3C-recommended general-purpose markup language for creating special-purpose markup languages. It is a simplified subset of SGML, capable of describing many different kinds of data. Its primary purpose is to facilitate the sharing of data across different systems, particularly systems connected via the Internet. Languages based on XML (for example, RDF, RSS, MathML, XHTML and SVG) are themselves described in a formal way, allowing some programs to modify and validate documents in these languages without prior knowledge of their form.
Podcasting	Podcasting is a method of publishing sound files to the Internet, allowing users to subscribe to a feed and receive new audio files automatically. Podcasting is distinct from other types of audio content delivery because it uses the RSS 2.0 file format. This technique has enabled many producers to create self-published, syndicated radio shows. Users subscribe to podcasts using "podcatching" software (also called "aggregator" software) which periodically checks for and downloads new content. It can then sync the content to the user's portable music player, hence the portmanteau of Apple's "iPod" and "broadcasting". Podcasting does not require an iPod; any digital audio player or computer with the appropriate software can play podcasts.
RDF	Resource Description Framework (RDF) is a family of specifications for a metadata model that is often implemented as an application of XML. The RDF family of specifications is maintained by the World Wide Web Consortium (W3C). The RDF metadata model is based upon the idea of making statements about resources in the form of a subject-predicate-object expression, called a triple in RDF terminology. The subject is the resource, the "thing" being described. The predicate is what trait or aspect about that resource that is being described, and often expresses a relationship between the subject and the object. The object is the object of the relationship or value of that trait. This mechanism for describing resources is a major component in what is proposed by the W3C's Semantic Web activity: an evolutionary stage of the World Wide Web in which automated software can store, exchange, and utilize metadata about the vast resources of the Web, in turn enabling users to deal with those resources with greater efficiency and certainty. RDF's simple data model and ability to model disparate, abstract concepts has also led to its increasing use in knowledge management applications unrelated to Semantic Web activity.

\* All definitions are from Wikipedia, after verifying their accuracy. They are more succinct than definitions I could come up with. Please note that these definitions are not my own.



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#### **\*\*Note\*\***

This topic is still quite young, and not much academic literature is available on it at the moment. The topic was spurred by my personal experience with how RSS changed the way I learn about current events and interact with my media sources. The information gathered online was used to solidify the technical history portion of the paper. All other information, including the speculation, is from my personal experience. I am fully capable of answering any questions I have unintentionally left unanswered, so please feel free to ask away. And if you've not yet tried it, I highly recommend getting into RSS. You might find it as revolutionary as I did.

