The Mechanics of Implementing RSS - Really Simple Syndication

Umakant Mishra
1. Introduction

RSS is a format to update the frequently updated content in the Internet such as blog entries, news headlines etc. An RSS document contains full or summarized texts plus metadata such as publishing dates and authorship. RSS stands for Really simple Syndication. RSS feeds benefits publishers by letting them syndicate content automatically. A standardized XML file format is used to publish once and viewed by many different programs.

RSS is used by millions of web users around the world to keep track of their favorite websites. An older techniques to track websites was to use bookmarks and browse them periodically to see if anything has changed. But this was tedious and slow. RSS provides a way for websites to distribute their content to subscribers immediately through their web portal.
2. The background problem

Technology evolution has enabled us to publish contents online. This leads to abundance of information. But it’s difficult to keep track of what is updated where. Most people are interested about latest news, community updates etc. But these items are updated very unpredictably. It is difficult and tedious to check those sites repeatedly to find whether anything has been changed.

One of the solutions is to use bookmarks and click on the bookmarks to visit the selected sites periodically. But this does not give a proper solution. Firstly you had to surf the sites to see the changes. Secondly it is not possible to check the whole site to find the updates so you may miss the information that you may be looking for. Thirdly you have to check the sites again and again even if there is no update for long periods.

The other options to tracking websites include using pages like MyYahoo, MyGoogle and MyMSN. RSS is a better way of notifying the new and changed content. Notifications of changes are handled easily from multiple websites. RSS gives a proper solution to this problem. RSS stands for Really simple Syndication. It is a method that provides you a technology of getting relevant and up-to-date information from various sources.

3. How it works

RSS is a way to subscribe to a source of information, such as a website, and get brief updates delivered to you. The sources of news are called feeds. Some web browsers like Opera and Firefox automatically detect RSS feeds and display the square RSS orange color symbol against those. Thus the steps of implementing RSS are as follows.

Step 1- the website or Blog creates an RSS feed
Step 2- the RSS Feed lives on an Internet server in the form of an XML file.
Step 3- the feed Reader reads the RSS file, analyzes and displays it.

Thus, the website author maintains a list of notifications in a standard way called “RSS Feed” or “RSS channels”. People who are interested in finding out the latest headlines or changes can check this list. Programs like “RSS aggregators” or “RSS Readers” access these RSS feeds of websites and organize the results for you.

4. Who publishes feeds

Most of the biggest names on the web offer content feeds. Including BBC news, ABC news, CNET, Yahoo, Google, Amazon.com and many more. Besides hundreds of thousands of bloggers, podcasters and videobloggers publish feeds to keep themselves better connected to their readers, listeners and subscribers. The photo-sharing service - Flickr also offers feeds to share the updates.
If you have a website, you can publish the RSS feeds on your website. The RSS tags on the RSS feed tell your aggregator how to display the feed on your screen, what size of the font and other details.

Many blogging tools such as TypePad, Blogger, Vox, WordPress, Drupal etc. include the ability of syncing your weblog into RSS. These programs automatically do everything needed to publish a feed without writing any code for feed publishing.

5. The technical details

There are two major versions of RSS, RSS-1 and RSS-2. RSS 1 was developed by RSS-DEV group and RSS 2 by Harvard. However both are open formats and provide features which are backward compatible.

RSS provides very basic information by making a list of its items presented in order from newest to oldest. The items may contain the summary of the actual item or the whole of the actual item. The RSS feeds in a news site may look something as below:

<table>
<thead>
<tr>
<th>Item1:</th>
<th>Item2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title- xxx</td>
<td>Title- xxx</td>
</tr>
<tr>
<td>Description: xxx</td>
<td>Description: xxx</td>
</tr>
<tr>
<td>Link: xxx</td>
<td>Link: xxx</td>
</tr>
</tbody>
</table>

RSS and Atom are rival projects. Both RSS and Atom are widely supported by various consumers feed readers.

**Google FeedBurner** - Google’s RSS feed is called FeedBurner. Anybody can have an account on feedburner.com and access the RSS feeds. FeedBurner’s service allow publishers to customize their feeds to suit the understanding of their audience.

6. How to read feeds

RSS aggregators or RSS feed readers are programs that collect RSS feeds from different websites and thus display the latest headlines from different websites like CNN, BBC, Reuters etc. You can customize the RSS reader to display either the full content or only the headlines, you can organize them by date or by websites.
RSS aggregators automatically check the RSS feeds for new items. Currently more and more websites use RSS readers and display the latest news or headlines or changing contents on the main page or news page. Many content management systems (CMS) provide RSS feeding and reading features.

There are many different RSS feed readers with various features. Some web browsers like Opera and Firefox automatically detect RSS feeds and display the square RSS orange color symbol against those. There are many others like Google Reader, NewsGator, My Yahoo, Bloglines, Pageflakes, Netvibes etc. which may also be useful to start with. All of them provide news reading / feed reading capabilities.

All these feed readers work similar to email programs. As you subscribe to feeds, you will see that unread entries from the sites will be marked as bold. If you click on them you will see the latest update and can read them right there in the feed reader. You may click to go to the actual site or move to the next unread item in the list.

7. Summary:

Technology evolution has enabled us publishing content online. But it is also equally important to access the published content from various websites or blogs, without remembering their addresses or visiting their sites manually. RSS helps us to do that job. RSS is beneficial to all the parties, Consumers, publishers and advertisers. The benefits of RSS are:
- Consumers are benefited as their subscription to feeds makes it possible to review a large amount of content in a very short time.
- Publishers are benefited as the feeds permit instant distribution of content.
- Advertisers also benefit as RSS feeds don't suffer from the drawbacks of traditional marketing channels, such as, spam filters, delayed distribution, search engine ranking and general inbox noise.

The mechanism of RSS is widely implemented in various websites of the World Wide Web. It helps the web users around the world to keep track of their favorite websites, news items, news letters etc., helps tracking arrivals of new items in the store, helps notification of changing items in a database etc.

Reference:

Google FeedBurner
http://www.google.com/support/feedburner

How stuff works page on “how RSS works”
http://computer.howstuffworks.com/internet/basics/rss.htm

The tutorial on RSS at
http://rss-tutorial.com/

About the author

After working for more than 18 years in various fields of IT in different organizations Umakant is currently carrying out independent research on TRIZ and IT since 2004. He last worked as Director and Chief Technology Officer (2000-2004) in CREA Information Technologies (Bangalore). Before that he worked as IS/IT manager (1996-2000) for ActionAid India (Bangalore).

Umakant is a Master in Philosophy (MA), Master in Business Administration (MBA), Bachelor in Law and Logic (LLB), Microsoft Certified Systems Engineer (MCSE+I), Certified Novell Engineer (CNE), Master Certified Novell Engineer (MCNE), Certified Intranet Manager (CIM), Certified Internet Professional (CIP), Certified Software Test Manager (CSTM) and holds many other global IT certifications.