

Practical 23

Aim: Web services, Feeds and Blogs

Web Services:

WSDL

- WSDL stands for Web Services Description Language
- WSDL is an XML-based language for describing Web services.
- WSDL is a W3C recommendation

SOAP

- SOAP stands for Simple Object Access Protocol
- SOAP is an XML based protocol for accessing Web Services.
- SOAP is based on XML
- SOAP is a W3C recommendation

UDDI

- UDDI stands for Universal Description, Discovery and Integration
- UDDI is a directory service where companies can search for Web services.
- UDDI is described in WSDL
- UDDI communicates via SOAP

RDF

- RDF stands for Resource Description Framework
- RDF is a framework for describing resources on the web
- RDF is written in XML
- RDF is a W3C Recommendation

Web Services are:

- Web services are application components
- Web services communicate using open protocols
- Web services are self-contained and self-describing

- Web services can be discovered using UDDI
- Web services can be used by other applications
- HTTP and XML is the basis for Web services

Uses:

Reusable application-components.

There are things applications need very often. So why make these over and over again?

Web services can offer application-components like: currency conversion, weather reports, or even language translation as services.

Connect existing software.

Web services can help to solve the interoperability problem by giving different applications a way to link their data.

With Web services you can exchange data between different applications and different platforms.

Feeds:

A **web feed** (or **news feed**) is a data format used for providing users with frequently updated content. Content distributors *syndicate* a web feed, thereby allowing users to *subscribe* to it. Making a collection of web feeds accessible in one spot is known as *aggregation*, which is performed by a news aggregator. A web feed is also sometimes referred to as a *syndicated feed*.

A typical scenario of web feed use is: a content provider publishes a feed link on their site which end users can register with an aggregator program (also called a *feed reader* or a *news reader*) running on their own machines; doing this is usually as simple as dragging the link from the web browser to the aggregator. When instructed, the aggregator asks all the servers in its feed list if they have new content; if so, the aggregator either makes a note of the new content or downloads it. Aggregators can be scheduled to check for new content periodically. Web feeds are an example of pull technology, although they may appear to push content to the user.

The kinds of content delivered by a web feed are typically HTML (webpage content) or links to webpages and other kinds of digital media. Often when websites provide web feeds to notify users of content updates, they only include summaries in the web feed rather than the full content itself.

Web feeds are operated by many news websites, weblogs, schools, and podcasters.

Benefits:

Web feeds have some advantages compared to receiving frequently published content via an email:

- Users do not disclose their email address when subscribing to a feed and so are not increasing their exposure to threats associated with email: spam, viruses, phishing, and identity theft.
- Users do not have to send an unsubscribe request to stop receiving news. They simply remove the feed from their aggregator.
- The feed items are automatically sorted in that each feed URL has its own sets of entries (unlike an email box where messages must be sorted by user-defined rules and pattern matching).

BLOG:

A **blog** (a truncation of the expression **weblog**) is a discussion or informational site published on the World Wide Web and consisting of discrete entries ("posts") typically displayed in reverse chronological order (the most recent post appears first). Until 2009 blogs were usually the work of a single individual, occasionally of a small group, and often covered a single subject. More recently "multi-author blogs" (MABs) have developed, with posts written by large numbers of authors and professionally edited. MABs from newspapers, other media outlets, universities, think tanks, advocacy groups and similar institutions account for an increasing quantity of blog traffic. The rise of Twitter and other "microblogging" systems helps integrate MABs and single-author blogs into societal newstreams. *Blog* can also be used as a verb, meaning *to maintain or add content to a blog*.

The emergence and growth of blogs in the late 1990s coincided with the advent of web publishing tools that facilitated the posting of content by non-technical users. (Previously, a knowledge of such technologies as HTML and FTP had been required to publish content on the Web.)

A majority are interactive, allowing visitors to leave comments and even message each other via GUI widgets on the blogs, and it is this interactivity that distinguishes them from other static websites. In that sense, blogging can be seen as a form of social networking service. Indeed, bloggers do not only produce content to post on their blogs, but also build social relations with their readers and other bloggers.^[3] There are high-readership blogs which do not allow comments, such as Daring Fireball.

Many blogs provide commentary on a particular subject; others function as more personal online diaries; others function more as online brand advertising of a particular individual or company. A typical blog combines text, images, and links to other blogs, Web pages, and other media related to its topic. The ability of readers to leave comments in an interactive format is an important contribution to the popularity of many blogs. Most blogs are primarily textual, although some focus on art (art blogs), photographs (photoblogs), videos (video blogs or "vlogs"), music (MP3 blogs), and audio (podcasts). Microblogging is another type of blogging, featuring very short posts. In education, blogs can be used as instructional resources. These blogs are referred to as edublogs.

On 16 February 2011, there were over 156 million public blogs in existence. On 20 February 2014, there were around 172 million Tumblr and 75.8 million WordPress blogs in existence worldwide. According to critics and other bloggers, Blogger is the most popular blogging service used today, however Blogger does not offer public statistics. Technorati has 1.3 million blogs as of February 22, 2014^[8]