

Exploring del.icio.us

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What Is del.icio.us?

On the site's About page, you'll find that del.icio.us is described as a "social bookmarks manager." But, unlike many of the early social software offerings that have peaked in popularity over the past few years, del.icio.us wasn't created just to help you find a job or hook you up with a date for Saturday night. Instead, del.icio.us is all about links: bookmarking, describing, tagging, sharing, and discovering things on the Web.

Now, at first glance, you might wonder what del.icio.us has over the bookmarks menu in your browser. Well, just for starters, links posted to del.icio.us are available from pretty much anywhere in the world. And, you'll never need to import or convert bookmarks between Web browsers again — unless you really want to, that is.

But here's where the social aspects start to come into play: Every time you add a bookmark to your del.icio.us collection, the site tells you about other people who've posted the same link. From here, you can dive into others' collections. After awhile you'll discover people who tend to link to the same things as you — and in exploring their collections, you just might stumble upon interesting things you wouldn't have found otherwise.

Another socially enhanced feature that's central to the del.icio.us experience is tagging. A tag on del.icio.us might best be described as a freeform cross between a keyword and a category. Like a keyword, a tag is meant to be short and sweet — one word, maybe a tiny phrase or WikiWord. But, like a category, a tag is used to group bookmarks together. Where the benefits of tagging begin to emerge is when many people converge on the same tags for similar topics. Tagging becomes very powerful when it's turned into a multiplayer game.

And finally, del.icio.us has its doors thrown open wide to welcome tinkering and remixing. Bookmarks listed by user and tags are available as XML feeds right alongside the HTML meant for human consumption. Most major features of the site offered for use within a browser are made available to scripts and third-party tools via a simple HTTP GET and XML-based API. By eschewing zealous restrictions on access to achieve user lock-in, del.icio.us has become even more popular and relied-upon than it might've otherwise.

chapter

1

in this chapter

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- ✓ Subscribing to bookmarks
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Signing Up and Getting Started

Taking advantage of what del.icio.us has to offer requires audience participation, so why not start off by getting yourself signed up for an account? Open up a browser window and pay a visit to the del.icio.us home page, shown in Figure 1-1. Oh, and in case it's at all confusing: The site's title is also the URL (<http://del.icio.us>).

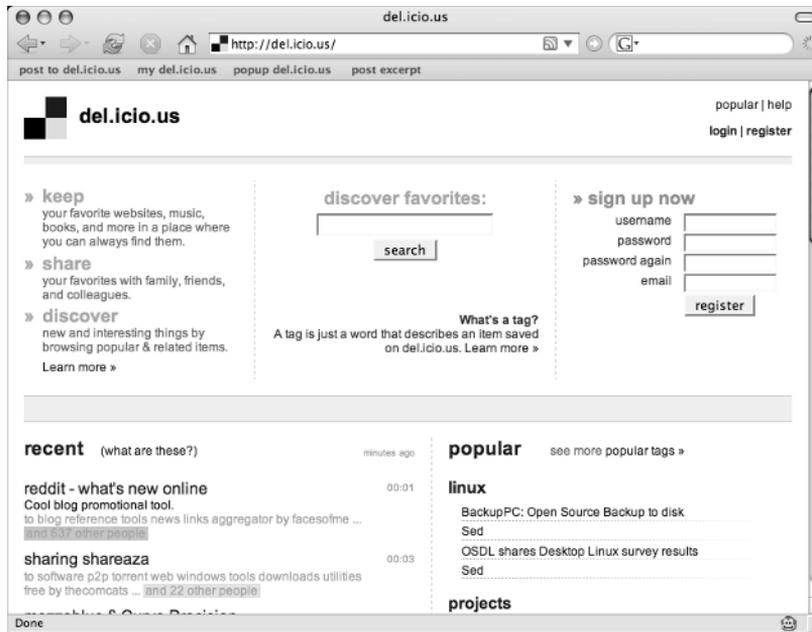


FIGURE 1-1: del.icio.us home page (not logged in)

This first page welcomes you with a bit of introductory text to explain the site. If you like, click around and read more about the site. Eventually, however, you'll want to sign up for an account. This is easy to do — use either the form presented on the home page or click the register link in the site's upper navigation bar. Click here, and you'll be presented with a form to create a new account for yourself.

On the registration page (shown in Figure 1-2), you'll find a form asking for a username and password alongside optional fields for your name and email address. Even though the email address is optional, you really should provide it if you'd ever like to recover a lost password. A more recent addition to the form is the use of a *CAPTCHA*, an attempt to foil automated account creation by robots. This is one of the few spots where automation isn't welcome — the creators of del.icio.us do want to know who's to blame when a robot runs amok, after all.

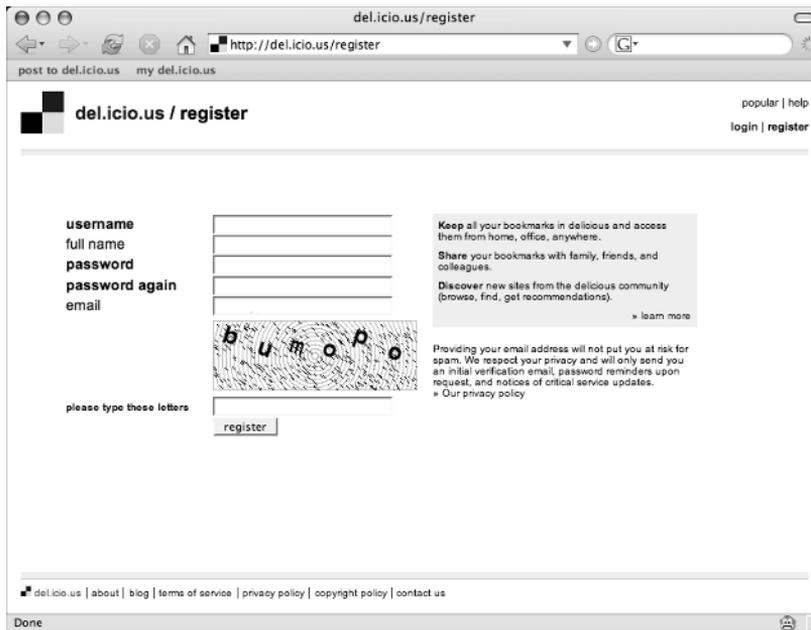


FIGURE 1-2: Registering to create an account



CAPTCHAs — or, “completely automated public Turing test to tell computers and humans apart” — are a growing practice on modern Web sites. But, if you’ve never seen one before or are just curious about them, here are a few pointers to follow for more information:

The CAPTCHA Project: www.captcha.net/

Wikipedia: <http://en.wikipedia.org/wiki/Captcha>

Anyway, you know what to do: Fill out the form, make sure you pass the Turing test, and click the register button. You should be given a page something like Figure 1-3 in response, unless you happen to run into a problem — such as attempting to claim a username already registered, or if you happen to fail the CAPTCHA test.



If you supplied an email address when you registered an account, you’ll be informed about a verification email that’s on its way. This message will contain a link you’ll need to click in order to verify that the address you’ve given is correct. This is just one more way to ensure you’re a live human being.

Immediately after successfully creating your new account at del.icio.us, you’re greeted with an initial page of instructions (refer to Figure 1-3). The primary way to interact with the site is via “bookmarklets,” which are small capsules of JavaScript code executable as bookmarks. As the instructions suggest, you should probably use your browser’s Links (on IE) or Navigation (on Firefox) toolbar as home to these bookmarklets, where they’ll be within easy reach. What you’re looking at are the first steps toward replacing your old browser bookmark habits.

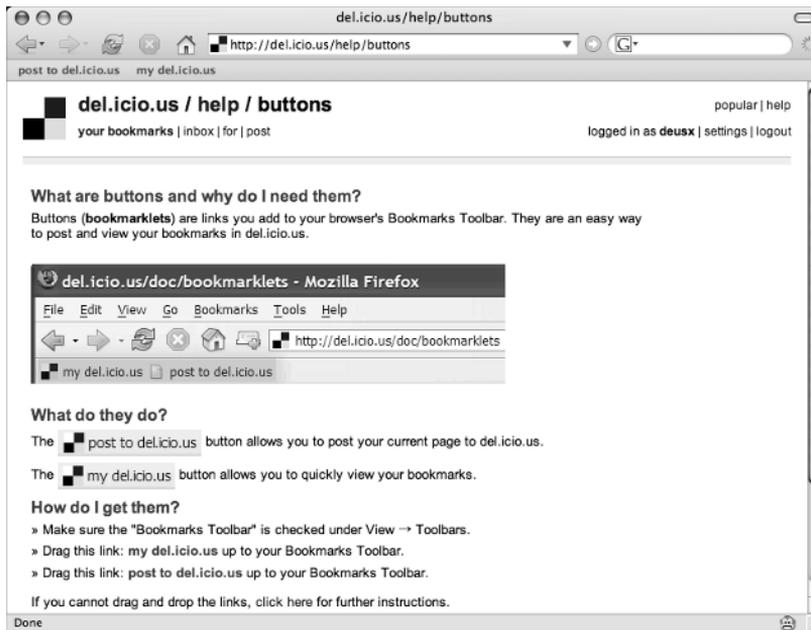


FIGURE 1-3: Post-registration help with del.icio.us bookmarklets

Once you've created an account successfully, you'll find that you're automatically logged into the site (see Figure 1-4). The introductory material that was shown in Figure 1-1 has gotten out of your way, and now you see the site's front page view. This page offers a sort of two-pronged fire hose of links, giving you the most recent links to be posted to the site alongside the moment's most popular links.

If you hadn't noticed before, you can see that this site is obsessed with links: Nearly everything on this page is a hyperlink to somewhere else — and links to within del.icio.us itself are in the minority!

Sharing Links

Now that you've gotten yourself an account on del.icio.us, and you've successfully installed the bookmarklets, you're ready to start sharing links.

Browse to a site — any site besides del.icio.us itself — and click the “remember this” bookmarklet. You should shortly see a page like Figure 1-5. Thanks to the JavaScript code in the bookmarklet, this page comes pre-populated with the URL and page title found from the previous page. From here, you can optionally supply a bit of extended description for this URL — some people fill this in with a quote lifted from the page, while others supply their own commentary or witticisms.

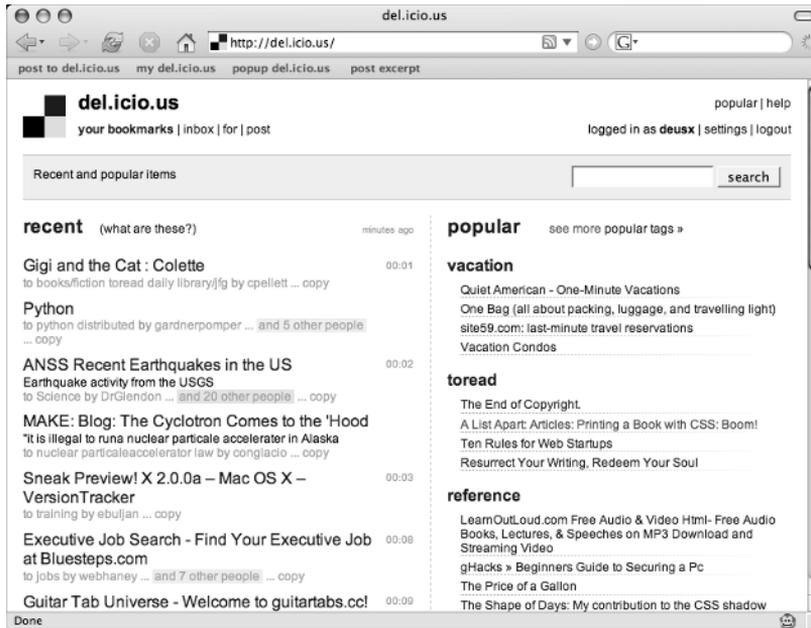


FIGURE 1-4: del.icio.us home page after login

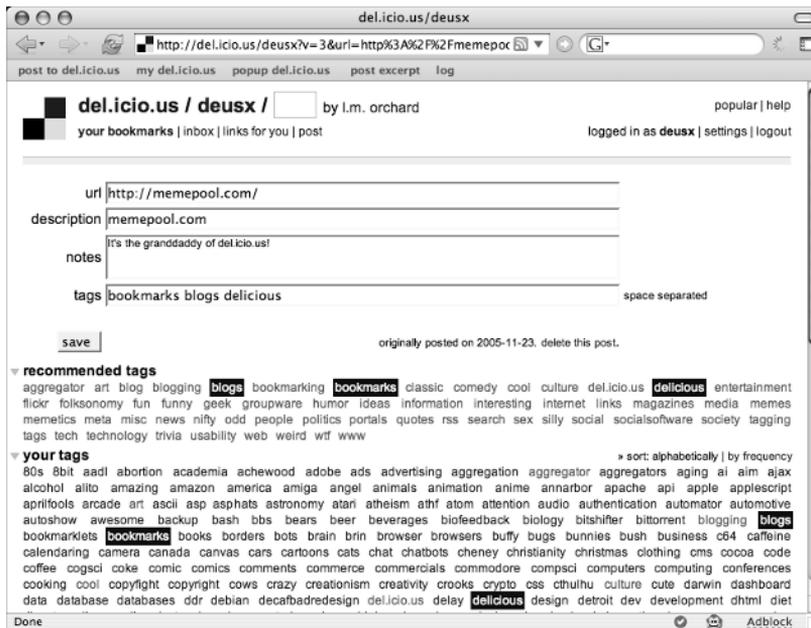


FIGURE 1-5: Posting a link

The other field available on this form allows you to associate tags with this link. You can enter these manually, one after another, separated by spaces. You can also take advantage of whatever tag suggestions appear associated with this link by clicking on one or more, which automatically appends them to the tags field. I'll get into this a bit more in a minute, but it's useful to pay attention to these recommendations. They'll help you take advantage of consensus built among other del.icio.us users.

Finally, once you've reviewed everything to your satisfaction, go ahead and click the "save" button. Alternately, most browsers allow you to simply hit Return in one of the form fields to submit the form, shaving seconds off your posting time. Shortly after submission, del.icio.us takes you right back to the URL where you started.

Congratulations! You've just posted your first bookmark to del.icio.us. Now, check out your personal collection. To get there, just add your user name after `http://del.icio.us/`.

For example, my own collection can be found here:

`http://del.icio.us/deusx`

Figure 1-6 gives you a look at what my bookmark collection looked like just after posting the link from Figure 1-5. The newly posted link appears at the top of the list because the collection is presented in reverse-chronological order. You should be able to see the extended description I added, as well as the collection of tags I selected. Note, also, that there are links to edit or delete each bookmark.

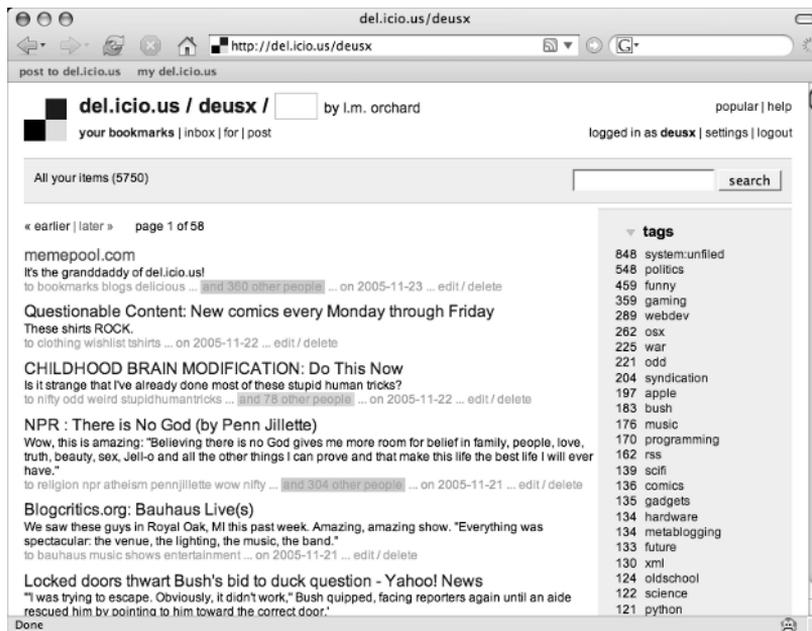


FIGURE 1-6: Visiting a del.icio.us bookmark collection

Making Bookmarks Social

Now that you have gotten a start on your collection of links, it's time to take a deeper look into just what it means to use a "social bookmarks manager." You might want to post a few more links of your own before reading on, especially if those links have appeared somewhere such as a popular news site. Alternately, you can visit someone else's bookmark collection (e.g., <http://del.icio.us/deusx>), which might have a few more posted links.

What you should be looking for is visible in Figure 1-6: Each bookmark has an indicator of how popular the link has become, with a color-coded count of other users who've posted the same link. This is more than a simple indicator, however — these are links that, when clicked, will result in something like what's shown in Figure 1-7.

The page in Figure 1-7 is a listing of notes posted by users who all bookmarked this URL. Here you'll find variations in how people have edited the title or extended descriptions for a particular link, as well as what collection of tags others have chosen to attach.

You can also see a ranking of common tags users have attached to this particular URL, in order of their popularity. This should give you a taste of how del.icio.us attempts to provide a rough view of the consensus among its users.

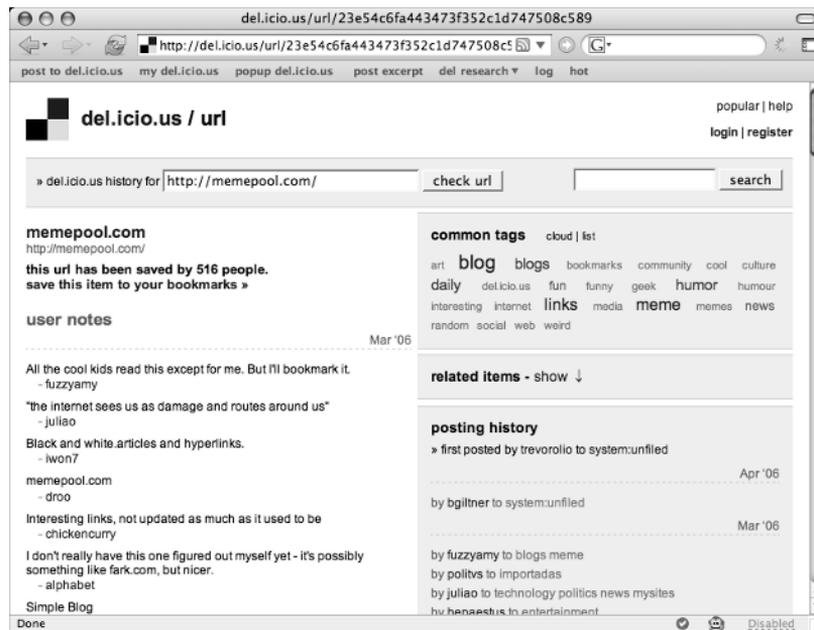


FIGURE 1-7: Viewing common details on a bookmark

Another feature on the page shown in Figure 1-7 is in the sidebar and rather understated: the “related items - show” link: Check out what happens when you click this link (see Figure 1-8). Because providing this display takes a relatively large chunk of processing, it’s not done by default. But, if you click here, you’ll get a list of recommended URLs that may be similar to the bookmarked URL you’re currently viewing. This is based on analyzing the postings of other users and similar tags used for other bookmarks.

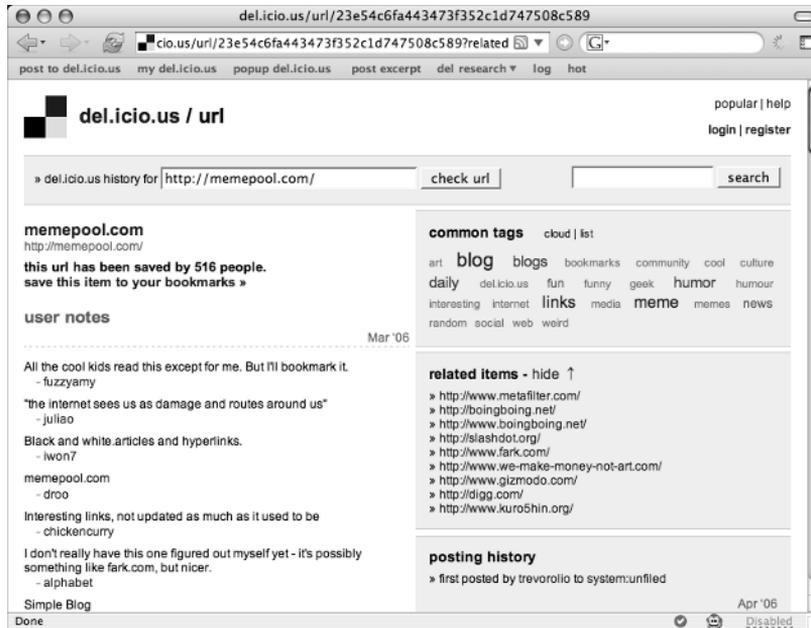


FIGURE 1-8: Viewing related URLs associated with a bookmark

Speaking of URLs

Although it might not mean much to you until you start getting into some deeper hacking with del.icio.us, there’s one more not-so-obvious feature to these pages in Figures 1-7 and 1-8. If you’ve been watching so far, you may have noticed that most of the URLs used to navigate the features of del.icio.us are very straightforward and simple — except for this one. This URL contains a string of apparently random letters and numbers reminiscent of opaque session tracking used in many “Web 1.0” applications.

Continued

Well, as it turns out, this string is an MD5 hash of a bookmarked URL. This technique is used to sidestep any issues involved in referring to a URL as a query parameter in another URL. Given any URL, run an MD5 hash on it, and you can find it on del.icio.us — provided that someone, somewhere has posted a bookmark to it. In the coming chapters, you'll see a few hacks that make use of this little trick.

Not sure what an MD5 hash is? Basically, it's a way to produce a consistent 128-bit fingerprint of any given collection of data. When expressed in hexadecimal, MD5 hashes come out to 16 characters in length no matter what the content of the original data, thus making them convenient and predictable digests for data. Here are a few pointers to more information:

- **Wikipedia on MD5:** <http://en.wikipedia.org/wiki/MD5>
- **RFC 1321:** www.faqs.org/rfcs/rfc1321.html

Exploring Tags

You've already been exposed to tags so far in your exploration with del.icio.us — both in supplying them when you post a bookmark and as links associated with displayed bookmarks — but now it's time to check them out in detail.

Since the feature was introduced on del.icio.us, many articles, papers, blog entries, and inspired implementations have been devoted to tagging. Tags are like categories turned inside out: Instead of meticulously placing bookmarks into a carefully arranged hierarchy of folders, you attach the tags to bookmarks. And rather than use a taxonomy of topics well considered and agreed upon in committee, the design of del.icio.us encourages the use of tagging in a flat namespace somewhat akin to word association — just fire off a handful of words you might vaguely consider in characterizing the link you're posting and submit.

It might sound hasty and sloppy, but it works. In fact, it works because it's hasty and sloppy: Because you don't have to put much effort or thought into the process, you're more likely to actually do it — as opposed to many well-intentioned and richly expressive approaches to metadata and classification that never actually see use by real people on a daily basis.

For a start, you might want to check out the master list of tags in use on the site. You can see what this page looks like in Figure 1-9, and you can visit it for yourself at the following URL:

```
http://del.icio.us/tag
```

This sort of tag presentation has often been called a “tag cloud.” The tags all appear as links in a big visual jumble, with more heavily used tags appearing in more emphasized and larger fonts. This particular page is arranged alphabetically by default, but you can click the “by size” link to see the tags sorted in order of popularity. If you click any of these tags, you'll find a page listing links from anyone who chose to attach that particular tag to their posting.

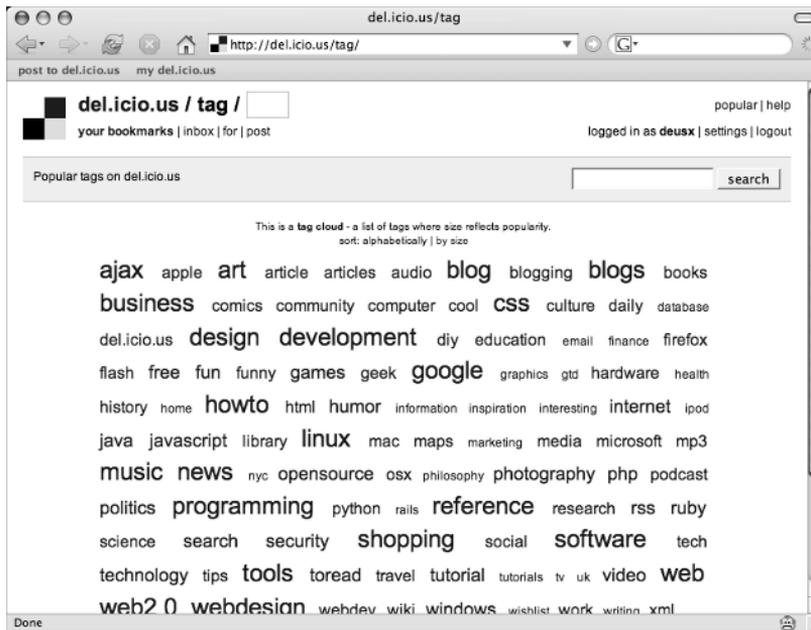


FIGURE 1-9: Viewing overall tags in use

For example, if you were to click “osx” — one of my favorite tags — you’d see a page similar to Figure 1-10. This is again just a reverse-chronological presentation of links with descriptions, along with their attached tags and an indication of popularity. The important thing to notice, however, is that every one of these links has had the “osx” tag attached.

It’s when you’ve got many people tagging similar links that the social aspects start to bear fruit: People tend to attach similar tags to similar things. And, even where people tend to differ slightly in their choice of tags (e.g., “osx” versus “mac”), del.icio.us can make attempts to present similar tags together. It’s a fuzzy process, but it hits a sweet spot between laziness and utility.

As you can see in Figure 1-10, the “osx” tag offers you what amounts to a decently topic-focused linkblog, thanks to the fact that most people use this tag when posting links related to Apple’s Mac OS X operating system. On the other hand, notice the “related tags” listing in the upper right. If you haven’t found what you’re looking for on this tag display, try one of those — these have been assembled after an analysis of what other tags tend to appear in the same context as the current page’s tag.

Using something akin to peer pressure, the site can gently nudge people toward more popular — and therefore more agreed-upon — tags through examples and recommendations. Over time, shared tagging forms a sort of ad hoc and emergent classification scheme, which, although vague and fuzzy, is in many ways superior to more intentionally planned schemes — if only by virtue of its actually being useful and subject to constant updates.

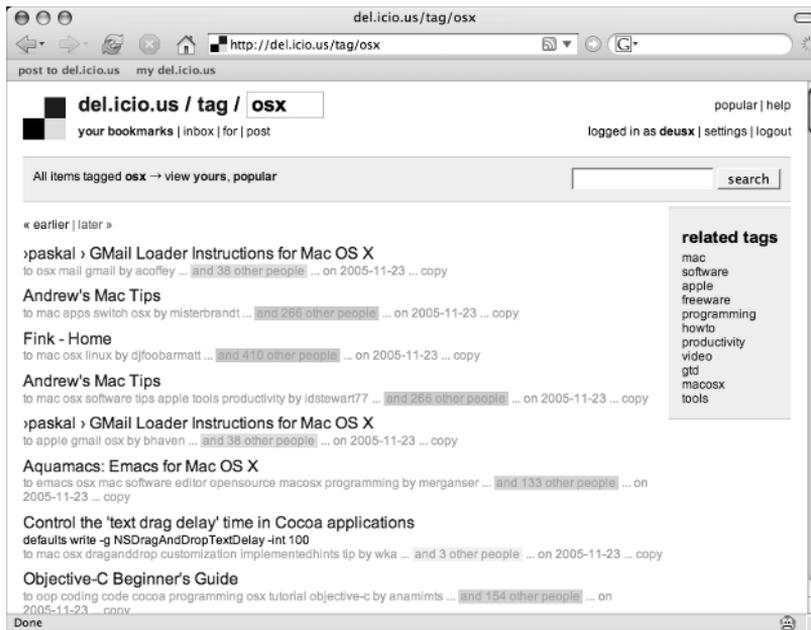


FIGURE 1-10: Checking out links under the “osx” tag



Note

Besides viewing single tags, you can also check out tag intersections by tossing a few tags separated by “+” into your URL. This shows you links that have all of the specified tags. For example, the following URL displays links tagged with both “apple” and “css”:

```
http://del.icio.us/tag/apple+css
```

These links might help you sort out some details specific to developing Web pages using CSS on Apple’s Safari Web browser.

Now, after all this talk about the social aspects of tagging, it’d be nice to see some of the personal benefits of tags. I mean, these are your bookmarks after all; what about your tags? Well, try this URL on for size:

```
http://del.icio.us/deusx/osx
```

If you like, substitute your own user name for the *deusx*. Either way, you should find a page that looks like Figure 1-11. Here you’ll see just the bookmarks you’ve posted with this tag attached. And also notice that, because the results have been focused down to your own collection, there are some richer options for further search: A list of your own related tags is available for tag intersection drilldown, as well as the master list of your other tags in use. Also worth noting is that there’s a link back to the shared tag, but you’ve already seen that page in Figure 1-10.

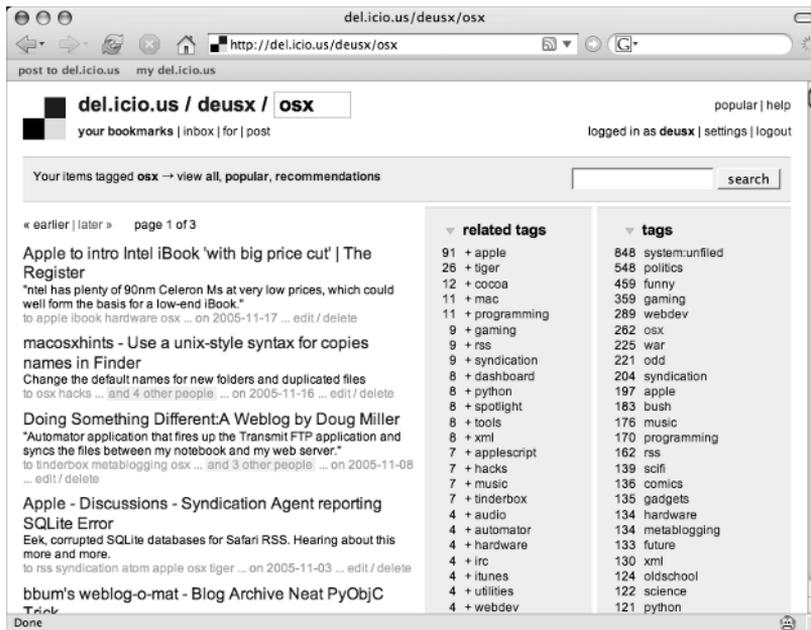


FIGURE 1-11: Viewing bookmarks under a user's personal tag

Something else to notice on the page shown in Figure 1-11 is the option to view recommendations. This is just another example of the social intelligence del.icio.us offers. Check out Figure 1-12 for an example of what these recommendations look like. Here, you'll find pointers toward other people who've turned up as statistically like-minded, at least with respect to what you think this particular tag means.

Keep in mind, however, that these recommendations aren't magic: This feature will reward you to the degree that you've loaded your account up with bookmarks. The more you post, the better your results.

Subscribing to Bookmarks

Once you've had a chance to wander around a bit, you might start finding people whose collections reliably turn up interesting items for you. Or, you might discover that you've got friends already on del.icio.us who'd like to post links directly intended for your attention. You will probably also discover combinations of tags that perfectly suit your interests — wouldn't it be nice to be kept in the loop on all the new bookmarks that show up there?

Well, although exploration and browsing are activities that the del.icio.us user interface invites, it also offers a few options to keep you updated with less manual effort.

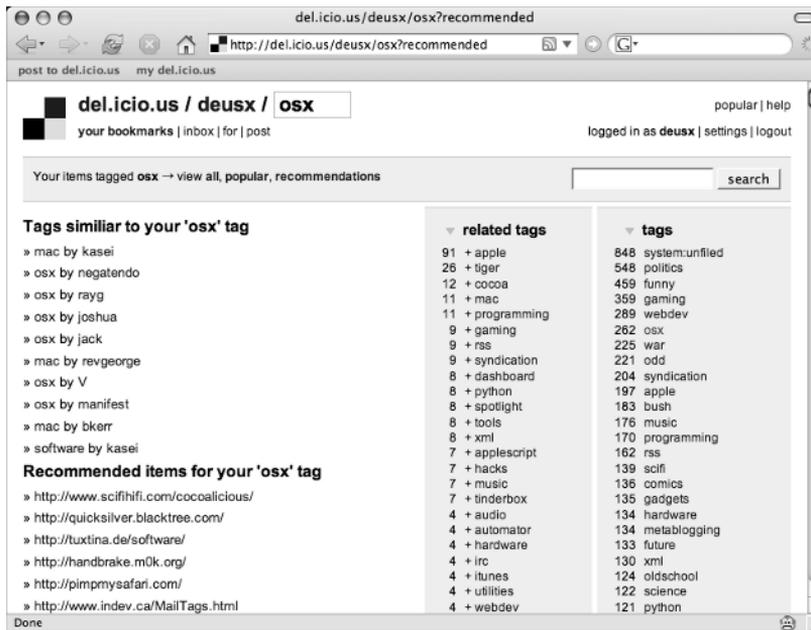


FIGURE 1-12: Viewing recommendations associated with a user's tagged bookmarks

As a registered del.icio.us user, you have an inbox at your disposal. With this tool, you can register interest in other users' collections and maintain a socially focused aggregated page of their bookmarks. Also, as you discover friends with del.icio.us user names, you can apply a special `for:` tag to your bookmarks to catch their attention — and vice versa. And, finally, so many of the lists and pages on del.icio.us offer RSS feeds you can pull into feed readers and aggregators so that you can be truly kept up-to-date.

Tracking Others' Bookmarks with Your Inbox

What would a socially oriented site be without a friends' list or a buddy network? Well, that's not quite what the inbox on del.icio.us is for, but it does let you gather up other users' collections into a single aggregated view where you can more easily keep updated on their new bookmarks. Figure 1-13 offers a peek at what this page looks like once you've started adding a few users' names.

You can access your own inbox from the prominently placed “inbox” link right next to “your bookmarks” in the top-of-page site navigation. Unlike many social software services, however, your collection of inbox subscriptions is private and not readily viewable by other users. This isn't so much a popularity contest as it is a tool to help you stay fed with interesting things from like-minded people. The list management page, shown in Figure 1-14, is accessible via the “edit inbox” link in the “subs” box on the right side of the inbox page.

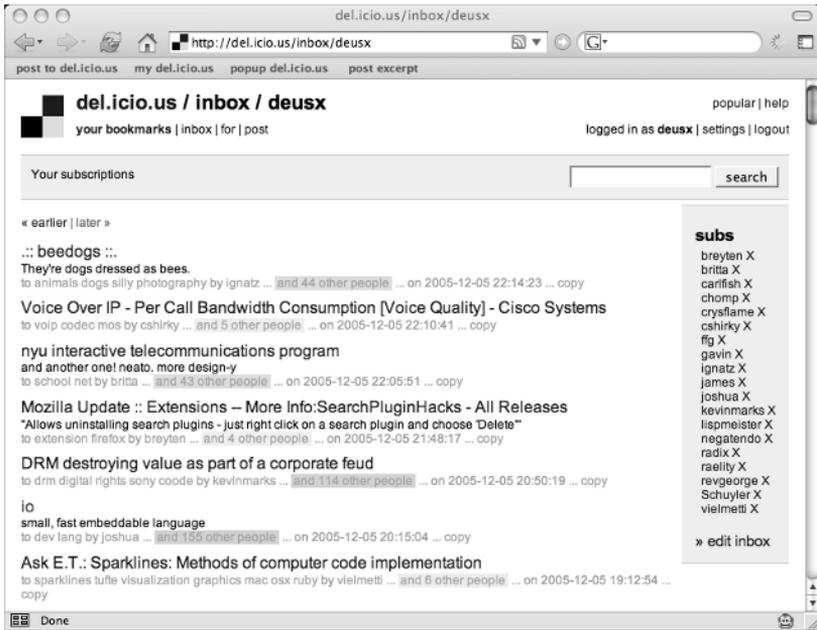


FIGURE 1-13: Viewing a populated del.icio.us inbox

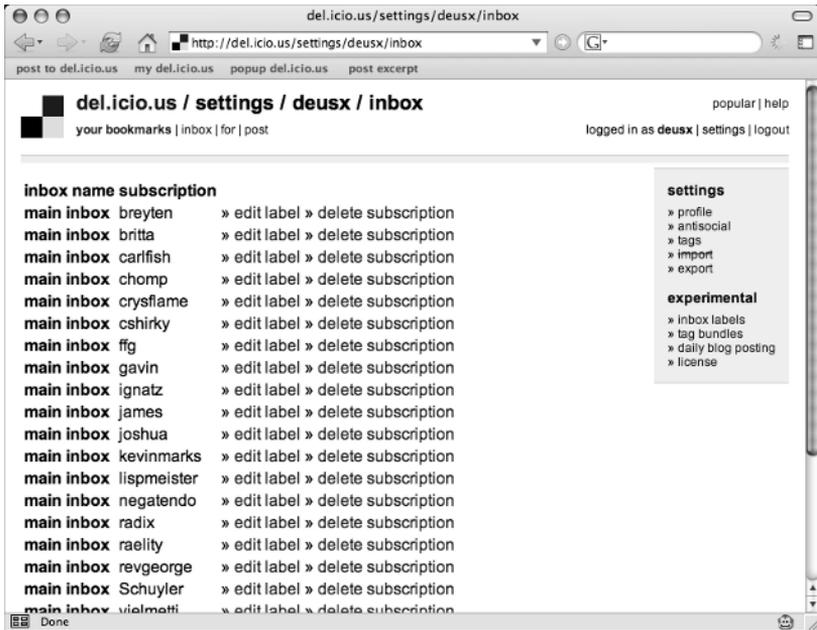


FIGURE 1-14: Managing names collected for the inbox

The interface here is very simple and to the point: In Figure 1-15, you can see a form at the bottom of the page you can use to add a user's bookmarks to your subscriptions list. You can also specify a tag, in case you'd like to narrow your attention down to a particular topic covered by an individual's bookmarks. You can also remove existing subscriptions, as well as rename them using some label more meaningful to you than a username or tag.

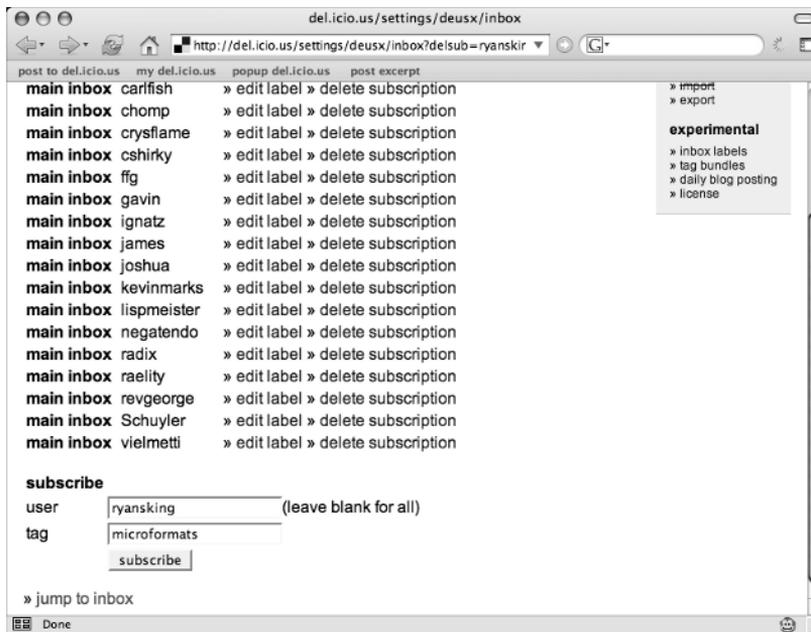


FIGURE 1-15: Adding a new user to the inbox

Sending and Receiving Bookmarks Using Tags

While you can keep tabs on individual people with your inbox, your friends and colleagues can take a more direct route to get your attention using the `for:` tag prefix. Any time you tag a bookmark using a del.icio.us user name prefixed by `for:`, that bookmark appears in the user's "for" collection. This page is available as a link right next to the "inbox" link in the top site navigation.

So, for example, if someone were to tag a bookmark with `for:deusx` when posting, I'd see that link appear in my personal "for" list in Figure 1-16. You can tag a bookmark using any user name, and anyone on del.icio.us can tag a link intended for your attention. It's worth noting that while the bookmark itself is not private, the `for:` tag is hidden from public view along with your aggregate collection of these tagged links.

Taken together, the `for:` tag prefix and private collection form a sort of messaging system you and your colleagues can use to share links and bring interesting things to each others' attentions.

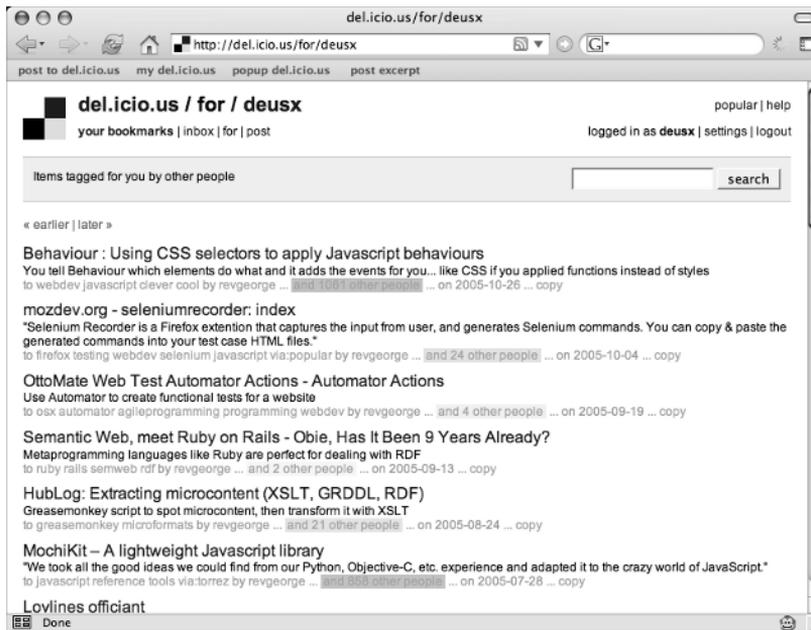


FIGURE 1-16: Viewing bookmarks tagged with for:deusx

Discovering del.icio.us RSS Feeds

As I mentioned before, del.icio.us provides many ways to get information into and out of the service. Besides bookmarklets and browser-viewed pages, del.icio.us also offers RSS feeds for many of the more interesting views on links posted to the site.

For an introduction to the various feeds offered by del.icio.us, check out the help page on the subject (shown in Figure 1-17):

```
http://del.icio.us/help/rss
```

In a nutshell, RSS feeds at del.icio.us are machine-readable XML documents that provide updated views of the lists of links you've been browsing throughout the site so far. Rather than remembering to visit del.icio.us to look for updates, you can use a feed reader or aggregator to keep tabs on these RSS feeds so that interesting new links will come to you.



Are you new to RSS feeds? These feeds aren't an original del.icio.us invention — if you're interested, you can find more reading on RSS with this Wikipedia article:

```
http://en.wikipedia.org/wiki/RSS_(file_format)
```

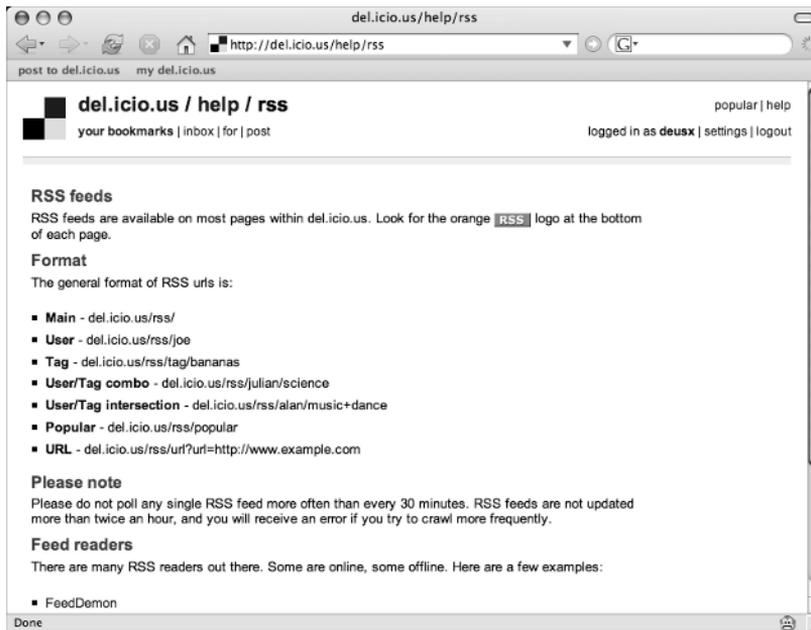


FIGURE 1-17: Documentation on finding and using del.icio.us RSS feeds

Reading the help pages at del.icio.us, you can see that several forms of RSS feeds are available, such as:

- Links that have been recently posted
- Links that have recently become popular
- Links posted by an individual user
- Links posted with a particular tag or combination of tags
- Links posted by an individual user with a particular combination of tags

And there are quite a few more streams of links from del.icio.us that have corresponding RSS feeds — keep an eye out for them. You should be able to see the familiar orange RSS icon appearing in the footer of many pages, as well as when these icons are called out elsewhere in the page.

Also, many feed aggregators and Web browsers are capable of “sniffing out” available RSS feeds when they’ve been included in a Web page’s metadata.

For example, most of the screenshots in this chapter were taken using Mozilla Firefox (www.mozilla.org/products/firefox/). If you look back through the figures provided so far, you may notice a special “transmission wave” icon appearing in the location bar on

many occasions. This is an indication that the pages displayed have corresponding RSS feeds. You can see this feature yourself, if you visit del.icio.us with Firefox.

Other browsers, such as Apple's Safari, offer similar RSS autodiscovery features. Also, some feed aggregators use this technology to let you simply provide the human-readable URL for a Web site, which will then be used to discover the machine-readable version. The end result of all of this is that del.icio.us makes it easy for both human beings and machines to gain access to bookmarks flowing into the site.

If you don't already have a feed aggregator that you use regularly, you may want to check out Mozilla Thunderbird (www.mozilla.org/products/thunderbird/). This is an open source application that offers email and feed aggregation features all in one place. Plenty of commercial and shareware options are available, but I use Thunderbird here for demonstration purposes.

In Figure 1-18, you can see a subscription to links tagged with `delicious`, as well as popular links and links that have been posted by others for my viewing with a `for:deusx` tag. Viewing links in an aggregator is just the start of where RSS feeds from del.icio.us become useful, however. These feeds, as well as their uses beyond feed aggregators, will come up again and in more detail in the coming chapters.

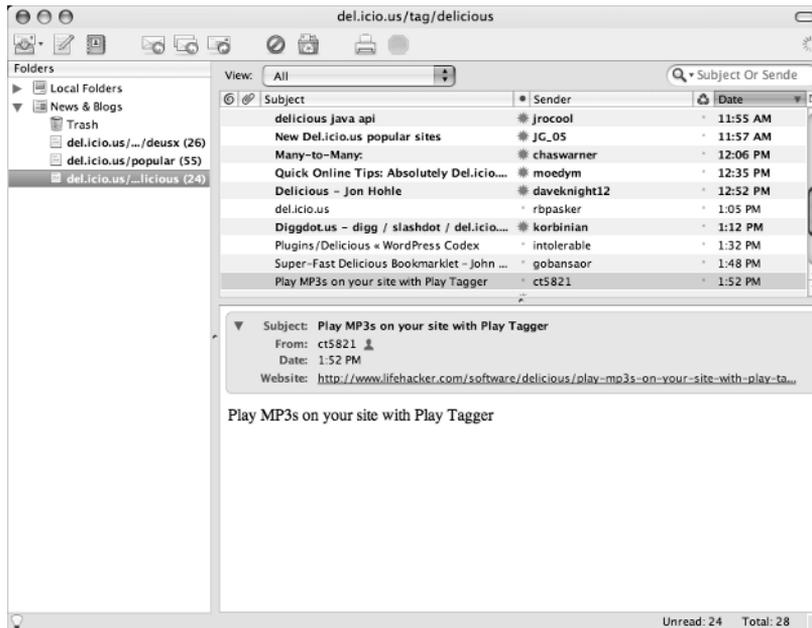


FIGURE 1-18: Feeds from del.icio.us in Mozilla Thunderbird

Programming with the del.icio.us API

Through machine-readable RSS feeds, del.icio.us provides a way to get bookmarks out of the system and into other applications. But wait, there's more — the site also offers a rich Web-based application programming interface (or API) that enables you to develop your own scripts and software wrapped around del.icio.us functionality.

This API goes beyond simple timely updates of links: You can make custom queries of your bookmarks by time and tag — as well as request a full dump of your data in case you ever want to back it up or switch services. Furthermore, you can post new bookmarks via the API, as well as perform a few tag maintenance functions.

This is just a quick summary of what capabilities the API provides. You can start digging into some details about the del.icio.us API in Appendix A. You'll also get a chance to see the API put through its paces in future chapters, both in your own code and in other programs that extend and enhance the functionality offered by this social bookmarking service.

Joining the Community

In addition to fostering a community based on bookmarks shared between friends and like-minded strangers, there's also a meta-community surrounding del.icio.us itself. You can keep up-to-date with updates and changes made to the service, as well as catch announcements and discussion about new software and third-party services under development by others.

The del.icio.us team maintains a blog located at this address:

```
http://blog.del.icio.us/
```

Here, you'll be able to catch new features and official announcements by the developers working on the site daily. Occasionally, you may find things such as tutorials on how to use the service or details on events and conferences where del.icio.us team members appear.

If email threads are more to your liking, there's also a long-running mailing list you can join for discussion and details about del.icio.us and other related developments. You can find archives and subscription details here:

```
http://lists.del.icio.us/pipermail/discuss/
```

And finally, if you'd like more immediate contact with del.icio.us fans and developers, there's a live Internet Relay Chat (or IRC) channel located here:

```
irc://irc.del.icio.us:6667/delicious
```

If your IRC client doesn't support URLs such as the one provided, try connecting to the server `irc.del.icio.us` on port 6667 and joining channel `#delicious`.

On the Web



Don't have an IRC client? Here are a few free clients you may want to check out:

Windows, Linux: XChat at www.xchat.org/

Mac OS X: Colloquy at <http://colloquy.info/>

Summary

This chapter's whirlwind tour of features available at del.icio.us didn't even touch experimental features — and I'm sure to have missed a few more updates by the time you read this. But you should now at least have a taste for what's possible with this social bookmarking service.

On the surface, this site offers an easy way for you to move your bookmarks out of your browser for access from anywhere in the world, where you can share them with friends. And once you've started sharing your bookmarks, a payoff comes in the form of recommendations and the opportunity to find other like-minded link gatherers. Then, when you're ready to dive deeper, there are RSS feeds and an API to explore for hacks and tweaks, which you'll see in the coming chapters.

But, you're not quite ready to close your browser yet: In the next chapter, you see that there's a lot more to it than the starter set of bookmarklets you were given when you first signed up.