



by Nelson King, March 1, 2006

Industry shifts to watch

Some days I feel like one of those little lizards with eyes that swivel independently, trying to keep an eyeball on all the things I need to watch. Prioritizing helps; We all have our topics and sensitivities. Changes in the Web/Internet are high on my list. To push an analogy: The Web is to information as the atmosphere is to breathing. But then I remind myself that some people dispute that our atmosphere is changing, or if it is, how important that might be. So it may be with the Web. In any case, here are three, let's call them Web-changing trends that I'll follow this year: The privatization of the Web, Web 2.0, and Eastward Ho! the Web.

The private Web

Schemes to make money from the Internet are a dime a thousand, but more appear all the time. During 2006, many of the largest U.S. Internet carriers (mostly telcos and cable companies such as Verizon, AT&T, and Comcast) will be pressuring Congress to re-write segments of the Telecommunications Act of 1996. Some of the changes will set the stage for these companies to charge content providers for the bandwidth they use. They say this is only fair. They put up billions to lay fiber optic cable, buy expensive network equipment, and develop complex network software. Why should content and service providers such as Google, Microsoft, and eBay get a free pass to chew up more and more bandwidth without paying for it? For this to work there must be some way of metering content providers, in effect their network packets will be tagged and given priority if they pay.

What could this do? For one thing, it will mean that some carriers will be charging both providers and users, plus operating the means of transmission, in short, a private network. We already have tiered access; depending on ability to pay there is dial-up, DSL (in various speeds), satellite, Wi-Fi, and cable. In general, faster costs more. If content providers can be charged, some will participate, and they will have premium services. Others will not participate; they will have lower priority with the carriers. This could lead to a tiered content service. Between the access and content tiers, the Internet could become Balkanized--pockets of poverty and plenty--relative to cost and quality of service.

The move to revise the Telecommunications Act has opposition. Companies such as Microsoft, Google, AOL, and eBay want the Internet pipes left open. They know, however, the argument that they should share in the cost of those pipes will have weight in Congress. Expect this issue to flare during the year. It may fizzle in a happy compromise or be the beginning of a restructuring of the Internet.

Web 2.0

Among the chattering cognoscenti (IT types ... all right, geeks like me) Web 2.0 was already a hot topic in 2005. However, even among those who know about it, there is confusion over what it means. For one thing, it's not an official phrase, title, protocol, or standard. It is a name (originally coined by a conference) given to a number of changes in the Web/Internet that are just beginning. If there is a definitive explanation of Web 2.0, you can read it in Tim O'Reilly's "What is Web 2.0; Design Patterns and Business Models for the Next Generation of Software." I'll briefly summarize the principles, which apply to Web sites, services, and applications that are part of Web 2.0:

1. The Long Tail. Use customer self-service and database knowledge to reach not only the core Web (at major

sites) but out to the edges of the Web where the bulk of the sites are located.

2. Data is the Next Intel Inside. Most Web 2.0 applications are data-driven and feature a mastery of database management.
3. Users Add Value. In what is called the architecture of participation, Web 2.0 constantly looks for ways to get user involvement. Users are co-developers.
4. Network Effects by Default. Re. #3: Users don't normally get involved, so make sure there the regular use of the application is attractive.
5. Some Rights Reserved. Keep restrictions on use and re-use to a minimum.
6. The Perpetual Beta. There are no software "releases," only constant updates.
7. Cooperate, Don't Control. Build a network of cooperating data sources. Harness collective intelligence.
8. Software Above the Level of a Single Device. Simply put, software should work on all kinds of devices, not just PCs.

Companies that leverage these principles produce Web 2.0 applications. Google is most often cited as a Web 2.0 company, often in contrast to Microsoft. (Expect to see a lot about this in 2006.) At least in this definition of Web 2.0, the essence is a continuation of the "commons" approach to the Web--its strengths are its vast size, user choice, and participation. There is a technical side to Web 2.0 (AJAX, lightweight interfaces), which will be developing rapidly in 2006. At least as a concept, Web 2.0 will take shape this year, and is well worth watching.

Eastward Ho!

Like the Earth's magnetic poles, the center of computer and Internet gravity is shifting. Previously it moved around the U.S.; for example, it used to be Silicon Valley. Then it was the United States as a whole. Now it's moving east. One sign: For the first time in 2005 more PCs were sold in Europe than the United States. Other places in the world have more Internet phones per capita (Japan, Estonia). Not surprisingly, the number of users in India and China will soon exceed the rest of the world combined (some predict 2006 will be the year).

You can watch for signs of the shift simply by surfing: How often do links land you in another continent, especially Europe or Asia? Same for Web searches. However, there is a caveat: The English language. India, and China will have an enormous number of Web sites in the native languages, but these will have little or no impact on global development of the web. The international language is English and if you run a website with aspiration for a global audience, then it must have an English version--good English, at least as good as found in American or British sites. This is a barrier, of course, and it will affect how rapidly the center of gravity of the Web shifts east. Almost by definition, only the globally connected leverage the strength of the Web (see Web 2.0 above), and at least for the foreseeable future, that connection has to be in English.

These Web trends--privatizing, Web 2.0, eastward shift--will occur (or not) over a longer period of time than a year, but 2006 is a good year to pick up on them, at least out of the corner of your eye--whichever one happens to be swiveling in that direction.

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<http://www.computeruser.com/articles/web-watch-2006.html>*