

## 9 Unheralded Technology Innovations

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**Some of the indispensable technology that you use every day was so ahead of its time that it now goes largely unnoticed. Here the innovations that forever changed email, Web development, database management and other "givens" in today's tech finally get their due.**

Because some of these achievements are so widespread, they are also easy to overlook. Not anymore. We're giving nine of these unheralded technology innovations their due here. Information comes directly from the people responsible for these advancements.

### 1. Server-Side Scripting

It all started with a TV show in Boston. In 1994, Fred DuFresne was working on an interactive website for the local station WCVB-TV. DuFresne created a technique called [server-side scripting](#), which was a stark departure from the common programming techniques of the day. Essentially, it "programs" a server to carry out commands such as showing you a video or a Flash animation.

Before server-side scripting, programmers had to write complex HTML commands. Today, it is used on everything from Facebook pages to foodie blogs. "With SSS, the level of training required to create dynamic pages was drastically reduced. No formal training in computer science was required to create a simple PHP page. There is no linking to object libraries, no compiling source code to object code," DuFresne says.

### 2. IP Cameras

You don't hear about IP cameras much, but there is probably one monitoring your parking lot right now. Interestingly, cameras that use the Internet to stream video are not as dominant as they should be. [Axis Communications](#), the company that invented IP cameras back in 1997, says only 40 percent of the security cameras in use today are connected to the Web, but that is changing.

#### Review: Dropcam HD: Monitor Your Home over the Internet

IP cameras can scale much faster-adding 32 cameras is essentially like plugging more computers into a hub-and the quality is arguably superior. They are more affordable, too, and provide additional features such as motion tracking.

### 3. Multipurpose Internet Mail Extensions

The MIME email standard ushered in a new age of rich messaging, turning raw text email into something much more useable-email with attachments, images and HTML encoding. Computer scientist Nathaniel Borenstein-one of the co-founders of MIME, something he worked on in the mid-1980s and saw become an email standard in the 1990s-sent the [first email attachment](#) in March 1992. Although there is no way to know definitively, some experts say the MIME standard processes email about 1 trillion times per day.

### 4. OAuth

OAuth, the open standard for authorization, is like the missing link in evolutionary theory, bridging the gap between two known entities. The technology uses a token as a credential. Say you want to use Salesforce.com data in Facebook. OAuth might be the authentication method used to connect one data set to another.

#### Analysis: OAuth 2.0 Security Used By Facebook, Others Called Weak

One of the important innovations with OAuth is that it is highly specific. You can, for example, use an OAuth token to create a secure connection between a Twitter feed and Klout, a service that ranks social media influence.

### 5. Keystroke Encryption

Here's a technology you hear about only at security analyst conferences. In the enterprise, malware infections can run rampant. One of the worst offenders is a keylogger, which is a piece of software that can record each keystroke. Criminals use them to capture business intelligence data, credit card numbers and bank records.

Fortunately, keystroke encryption prevents these attacks. Companies such as [StrikeForce Technologies](#) invented encryption technology at the hardware layer for companies to augment security detection techniques. Now it's used on more than 4 million computers, with the potential for much more.

#### **6. Virtual Market Research**

Some brilliant innovations are not widely used by the enterprise-not yet, at least. The concept of virtual market research, offered by companies such as [Affinova](#), takes the traditional technique of market research-in which you have people sit in a focus group and give their opinions-and makes it virtual. You can test a new product packaging design, a logo and even specific wording in a marketing campaign, present the new ideas in a Web interface and then track preferences. Companies such as Nutrisystem and Ricola have tested new marketing concepts this way.

#### **7. Open Database Connectivity**

This unheralded tech is so commonplace now, many IT experts can't imagine how in-house applications could run without it. Developed in the early 1990s, the concept was ahead of its time; as an open standard, ODBC can connect to any other Database Management System (DBMS). The drivers can run on any platform and even connect from one platform to another. In that way, they pre-date the open standards used on the Web. The only catch is that many Web apps skip ODBC and connect to databases using PHP.

#### **8. Reputation Management**

The reputation of a large company is hard to control, but it's not impossible. Reputation management systems, including [Reputation.com for Business](#), can track customer sentiment for major brands.

For example, in one demo for an American automaker, the system showed reputation level at the dealer level, tracked by monitoring comments on message boards and Twitter. This can help a company track whether customers are happy with a brand, down to a regional and even a local level.

#### **9. Local News Aggregation**

While Craigslist gets all the attention as the grassroots classified advertising tool, services such as [Patch](#) also helped changed how local news is generated. Patch operates like Craigslist in the sense that there are hundreds of local hubs where people can post news stories and human interest content. Lately, this aggregation concept has lost some momentum-but the idea might make its way into the enterprise in the form of more localized content for Intranets, including employee status updates.

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