Opinion: What Web 2.0 is (and isn't)

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July 30, 2007 (Computerworld) Q: I keep hearing about "Web 2.0" more and more. I thought it was all about Amazon.com and MySpace, but now people toss the phrase around everywhere. What do I need to know? -- J.R., Salem, N.H.

A: Excellent question, and one I think I can shed some light on. You see, I'm one of the ones responsible for all the chatter.

Here are some definitions:

Web 2.0 -- Think of this as the front end, consumer-facing interface that folks use to connect with other folks. The terms community and social network are applicable here. It's a place where folks hang out electronically, connect with peers or experts, friends or foes, with some commonality of interests. MySpace and Facebook are perfect examples of true end-user applications of Web 2.0 technologies. LinkedIn is a business-oriented example of such.

What's the difference between Web 1.0 and Web 2.0? Version 1.0 was about extending the reach of people so they could connect with others far away, electronically. For business, it was about a new "virtual" storefront where customers could find you and spend their dough without having to physically drive to your location. It was about my ability to communicate with colleagues and cohorts around the planet in semi-real time. Web 2.0 uses the entire 1.0 Internet infrastructure but does so in more of a matrix -- instead of a point-to-point (person-to-person, or person-to-place) way of thinking.

Web 2.0 is about connecting me with someone or something else because I was connected with you -- and you were connected with them. It's sort of a "six degrees of separation" thing. The main difference financially is that with Web 1.0, if you came to my Web store and it sucked, you might have gone away, but you really couldn't extend the damage that you might have done. In a Web 2.0 world, you now blog about how bad I suck, you participate in forums and chats and generally have a much louder voice. The sphere of influence of someone in the Web 2.0 world is frightening to many -- one person can directly alter the opinions and actions of a lot of folks now.

Information 2.0 -- When a community of practice (CoP) exists among like-minded people, a wealth of information can be generated. For example, it would be good to know all you can about Chuck the antagonist in your CoP to try to understand his power in the community and then how to keep him on the team. There are huge amounts of very fine chunks of information created constantly in this way, so understanding it and using it is critical. Most "legacy" companies are afraid of this Web 2.0 phenomenon because people say bad things, but that's asinine. Knowing is much more important than hoping. People are going to find a way to use their newfound power whether you like it or not, so encouraging it and building a legitimate partnership with the community -- both good and bad -- will be paramount. Ignorance or hope will lead to death. Adaptation and embracing change is how survival works.

You don't have to like it on Day One, but you will learn to love it. The way people buy your products, use your services, research alternatives, and tear down real or artificial "wall of confusion" elements that you've successfully used and relied on for years are going to end. Knowledge is power, my brothers and sisters, and the wisdom of crowds will not be contained or restricted in the new world order. Understanding the data is the key to the kingdom for capitalists. This is not easy stuff, so if you are terrible at harnessing all the corporate information assets you already have, then you'll most likely be bad at this new stuff. But don't fret, for unless you are given the ability to hop on this bandwagon from a high-level, strategic sense, your company is going to perish anyhow. You might as well milk it until you can find some forward-thinking alternative.

Side note: This is the pot of gold for IT. Embrace the movement and get yourself smarter about this stuff. This is how IT becomes completely relevant and strategic again. Companies will slowly come to grips with the fact that if they don't participate, their customers are going to leave, and I don't care if it's a local...
hairdresser or General Motors, eventually the power of Web 2.0 will change everything in business. The folks who were hip Internet 1.0 HTML coders were all the rage for a few years, but this is a far more long-lasting, far-reaching wave to ride, and it ain't about code per se; it's about the business of information.

Infrastructure 2.0 -- The overwhelming majority of those considered Web 2.0 companies are considered such because of their market perception. The value that will come out of this wave for every company will come in the form of behind-the-scenes Infrastructure 2.0.

Infrastructure 2.0 is simple to understand. Since the Web 2.0 phenomenon has hit, it has largely been predicated on building a community in a completely unpredictable way, with some assumptions of the value created but no hard dollars to bet on. Advertising to eyeballs remains the primary value driver in this world, though sites like Amazon also exact a small toll for their efforts.

Because of the unknown, or at least wildly variable, elements associated with making money, using traditional business models and traditional practices on the back end made no sense as Web 2.0 was developing.

What the early folks wanted was infrastructure that scales forever, in whatever chunks I want, in real time, dynamically, and based on absolute commodity components that even a monkey can manage. Oh yeah, and it really should be orders of magnitude cheaper than what I can buy today. The IT industry said "we can't do that," so folks like Google did it themselves.

No matter what you think, the model has been proven, and it's only a matter of time before every company starts insisting on having the same kind of thing in their data centers. The argument that you get what you pay for isn't true anymore. The presumption that cheap or free means inferior is baloney. How many of you run Gmail or Yahoo Mail alongside your expensive, enterprise-caliber e-mail system because that same system is down at least twice a week? When is the last time Gmail or Yahoo Mail was down? Sometimes free is better.

This is a tremendously interesting space to watch. Just like the way in which a YouTube or MySpace was able to divert billions of dollars in value from traditional media players, if our little $100 billion annual infrastructure industry doesn't change its stripes, even the biggest of the players will ultimately die. Not possible, you say? It wasn't conceivable that AT&T would be broken up, nor was the fall of the Soviet Union, but they were no longer able to control the masses, and eventually knowledge and desire will win out -- so you either adapt to the new generation, or you too may find yourself the subject of stories lumping you with people like Ken Olsen, who said, "Why would anybody ever want a computer in their house?" Don't ever think you have been so successful for so long that it means you have a right to that success in the future. You don't.

Infrastructure 2.0 includes Storage 2.0, Server 2.0 and Networking 2.0. Everything 2.0. Most of where we are in all this is Version 1.5 at best -- and mostly 1.0. True value of this whole 2.0 phenomenon won't be realized until Company X is creating new, exciting bonds with its constituencies via Web 2.0 initiatives and making decisions based upon the intelligence derived from their Information 2.0 architecture, which all executes on an IT back end that costs pennies vs. dollars and effectively runs as a self-contained, self-healing, self-expanding entity. I want to invest in that company.

Send me your questions -- about anything, really, to sinceuasked@computerworld.com.

Steve Duplessie founded Enterprise Strategy Group Inc. in 1999 and has become one of the most recognized voices in the IT world. He is a regularly featured speaker at shows such as Storage Networking World, where he takes on what's good, bad -- and more importantly -- what's next. For more of Steve's insights, read his blogs.