



What will the software industry look like in 3, 5, even 10 years from now? And what customer demands and business trends will drive changes in software products, how they're developed, and the industry that provides them?

Throughout the next decade, the software industry will continue to converge more rapidly with the web industry. As a generation of users who have grown up using the web enter the work force, they bring to the market a whole new set of expectations about technology and software. This "cloud generation" have three expectations on how software works:

1. Immediate Availability

Cloud Generation users expect immediate gratification - they want to do a search and get going without any wait. This trend has been accelerated by the concept of small payments even for simple applications that are acquired through app stores. Even for paid applications, there is an expectation of immediate access without any delays.

2. Ubiquitous Access

The concept of data and information being available only in certain locations and certain times is a complete cipher to anyone under the age of 30. This trend is being accelerated by the adoption of smart phones and tablet computers. Mobility is dependent on ubiquity of data access.

3. The Ability to Share and Collaborate on Data

For a generation that is used to immediate sharing of any type of media or information, the thought of closed systems with limited access is an anathema.

This trend is greatly accelerated by the ubiquitous adoption of simple web-based Application Programming Interfaces or API'S. The cloud generation expects to not only be able to access data but to program against it.

As the cloud generation enters the work force, traditional client server computing looks like mainframes did to the PC Generation 20+ years ago. It is slow, inflexible and dated. As this cloud generation starts being promoted into decision-making positions, they are demanding same attributes in their work software that they have grown accustomed to over the course of the last 15 years.

This "cloud" software will have a number of attributes that distinguish it from traditional software.

- **Self Service**

One seemingly obvious point about the cloud generation is that people who like to go on-line like to buy things on-line. Often software companies will say they don't sell on-line because their customers want to create deep relationships with their sales people. That's a cop-out. On-line

selling does not necessarily mean you don't have sales people. It means that customers interact with sales at their leisure. If you force them to talk to a rep, a number of prospective buyers in the cloud generation will not consider your product.

The other point traditional software vendors miss is that they underestimate the power of web and community-based support. If users lack the ability to go on-line and check the status of an application or collaborate with a community of users on a particular issue, they will skip over to an application that provides these capabilities.

- **Continual Updating**

No one ever says, "I'm going to wait for release .1 to upgrade Facebook". Cloud users expect to see a continual stream of new features and functions being added to their applications. That can be a minefield as you run the risk of tweaking the parts of the application that the users have come to love; however, doing nothing is a sure path to obsolescence.

- **Ubiquitous Availability**

The desktop metaphor is quickly dying. Not only do people want to access their systems from any web browser; but also, they want to access it from any device. Ubiquitous availability means that they can work from an iPhone app as easily as from their office PC (if such a thing even exists anymore).

- **Simple API's**

And not only do they want to access their apps from anywhere, they want to be able to access it from other applications. The ability to cross connect data and functionality across applications has been a huge boon to the consumer web experience. Think what will happen when businesses are able to do the same thing with their corporate data. Simple API's are critical to making that happen.

- **Scalability**

Often the biggest excuse for not implementing the previous recommendations is "my application is complex" so I can't make it available as a cloud application. The depth and scale of most of the larger cloud applications show that to be not only a fallacy; but also, it demonstrates that only truly multi-tenant clouds apps can gain the level of sophistication that will be required for the next generation of users.

These underlying drivers will force the enterprise software industry to look much more like the consumer web industry does today. That's a very good thing. Not only does it mean new software ventures can reach unthinkable heights; but also, it might finally allow enterprise software developers to start getting back some of the hot-shot developers that left them originally for Twitter and Facebook.

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