Will mega-mergers succeed on Internet?

By Max Nikias

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America Online proposes to buy Time Warner. Time Warner sets a merger with EMI Music. And last Thursday we heard reports that News Corp. and Liberty Media are considering a takeover bid for General Motors to get control of its DirecTV unit, which provides wireless television and Internet services. Other mergers are sure to follow.

The main reason: To engineer the successful convergence of news and entertainment content and the Internet. Yet success will hinge on a little-discussed open secret: There's no way to make this convergence happen without actually re-inventing Internet technology.

In truth, the Internet is not yet up to giving people what they want -- a dramatically new way to be informed and entertained while interacting much more naturally with the technology. Right now, these companies don't have the technology to make this convergence happen, and they are not really working on it. Even the most promising business combination won't guarantee success if the merged company can't meet -- and exceed -- the technological expectations of the market.

The promise of the Internet goes way beyond today's advances of faster computer chips and new versions of software -- it is, rather, the Internet in 3D. And, as they say, that will change everything, beginning now: New 3D immersive audio technology is already being added to the Internet listening experience. Our two-dimensional world of computers, TV and film will be replaced as innovative multimedia technologies now emerging from research labs provide us with the means to create three-dimensional immersive environments in our own living rooms-or anywhere else.

Yet this emergence is too slow because there's not enough investment today in truly breakthrough Internet technology. Right now we can anticipate that within 10 years, we'll bring live scenes into our living rooms and converse with people as if they are right there with us. And, within 15 years, we'll be able to actually get a fairly realistic feeling that we're touching objects we see on the Internet.

Yet, who knows? We might see this a lot sooner -- if these large companies jump in with both feet, looking clearly at the opportunity for blowing away the competition.

Here are some glimpses of what the technology promises:

You shop from the convenience of your living room by interacting in an Internet home shopping channel that allows you to see and talk to remarkably life-like 3D human representations of remote store clerks and to "touch and feel" the products. Three-dimensional immersive audio makes it sound like you're really shopping in a mall.

Or, if you tune into a distance learning class, suddenly your teacher and the other students are right there in your living room, appearing as full-bodied, 3D avatars that look and sound just like the real McCoy.

And, if you can't get out to visit the grandkids, summon them to your living room by way of an immersive environment.

The avatars won't appear out of thin air; they might be facilitated by unnoticed screens or special glasses. These future immersive environments can be described as a kind of "immersipresence" made up of "immersidata" -- the integration of visual, sound and other data that we now call multimedia.

The 3D Internet will rank right up there with the true breakthroughs of the past 30 years, including the establishment of ARPANET, the Internet's precursor, in the 1960s; the introduction of the microprocessor and the invention of the personal computer in the 1970s; and then the development of the World Wide Web browser in the 1990s.

But, for the leap into the 3D Internet, we still need breakthroughs in Internet transmission, human-computer interfaces and database management systems. To make these breakthroughs happen, companies that want to be players in this new Internet world can't do what they've always done and wait for federal dollars to deliver fundamental research results. That may still be the model for other areas of science, but not for breakthrough Internet technology.

Instead, these players should begin right now to accelerate the flow of R&D dollars to address the 3D Internet's remaining technological challenges, revamping their own product development approaches or pursuing partnerships with universities and other research centers.

Too much is riding on the Internet as a driving force behind dramatic changes in our society. Too much is riding on the promises that big companies make to their shareholders that their mergers will be successful. AOL, Time Warner and others can't afford to delay -- Internet time is racing on.

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