

A DIGITAL BIT

FROM DIAMOND'S
INSURANCE, ASSET MANAGEMENT
AND HEALTH CARE PRACTICE

Do the math: on-line communities pack a wallop

In wrapping up a three-part series on how on-line communities are shaping the future of electronic commerce, we asked our colleague David Reed, Ph.D. and Diamond Fellow, to share his thoughts on just what makes the phenomenon so compelling for companies looking for ways to capitalize on the Internet. He not only believes, as we do, in the power of community building, he's even developed a mathematical equation to prove his point.

In previous issues of A Digital Bit, we've discussed how to go about creating an on-line environment that facilitates communications and transactions between and among all participants (Nov. 1998) and we've offered up some examples of companies that have managed to build successful communities so far. (Dec. 1998.) But the real motivation for companies is in understanding the economic value of hosting a community in the first place. That's where what we've started calling "Reed's Law" comes into play.

It's already clear that electronic commerce has changed a lot of the rules of competition. The Internet has become a breeding ground for rivals who seem to come from nowhere. Figuring out where the profits are isn't always so easy. It helps to start out with two known laws of communications networks before turning to Reed's thoughts on the topic.

First, there's the law covering the broadcast network, which allows for communication to flow one way to as many people as are hooked into it via their television sets or radios. So the value grows proportionally to the size of the network, or the number of individual viewers or listeners.

Mathematicians would simply refer to those people as N . Direct marketing businesses work like this. In fact, most businesses are like this. Their value is directly proportional to their market share or number of customers.

The real motivation for hosting an on-line community comes from understanding the economic value of group-forming networks.

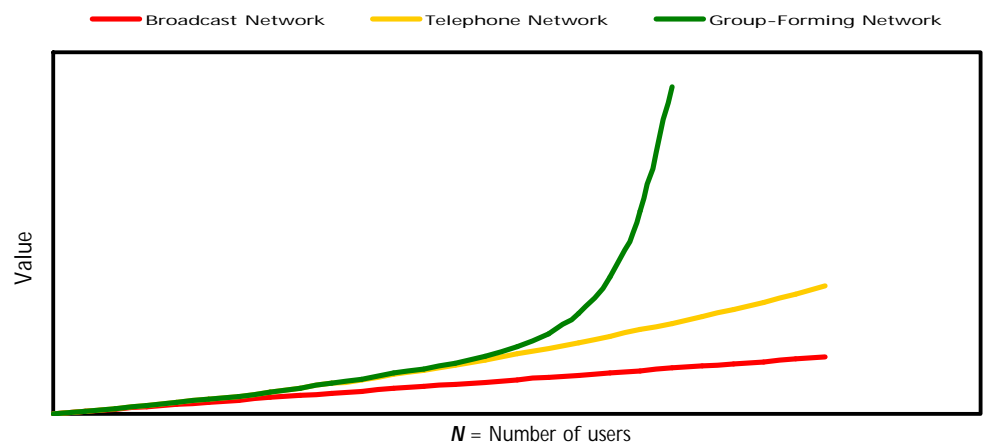
A networked business, like a telephone company, supports a large number of two-way interactions. In this case, the value quite literally multiplies as more people join, growing with the square number of users (N^2). It was an observation first made by Bob Metcalfe, inventor of Ethernet, which has become the standard technology for linking office computers. It explains why it is so important for different telephone networks, owned by different companies, to nonetheless pass traffic to and from each other seamlessly (a cellular network would have a pretty low

value if all you could do was talk to other cellular users). It's not that you plan on talking to everyone who is connected to the telephone network, but it is nice to know that you could (and the option to do so is most likely worth a great deal to

you). The same law helps to explain the popularity of the Internet because its value also increases with the square of the number of users.

But Reed points out that on-line communities take all of this to a new level. The value, in effect, grows much, much faster. And here's where the math comes in again. The number of different interactions that can be formed from the entire group of members grows as 2^N . In other words, the growth is exponential. (see graph below)

The value of on-line communities grows exponentially



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Take the Internet auction pioneer, OnSale. It business grows in line with the number of people it reaches. It specializes in selling reconditioned electronics and other items that don't have a fixed value, auctioning them to anyone who has access to its Web site. In return, it takes a cut of every sale it makes.

By comparison, on-line classifieds connect buyers and sellers on a one-to-one basis. That would seem to create a market that follows Metcalfe's Law. Reed expects to see a shift of dominance to the classifieds from OnSale, once safe on-line transactions between individuals can be perfected.

But he notes that it's really eBay that seems destined to capture the exponential power of these group-forming networks that we like to call communities of value. The site helps its members set up auction communities for art, wine and other collectibles. The members are in control, with eBay providing the hosting environment. Though its share of the deals that it facilitates may be much smaller than that of OnSale's, the returns eBay can earn will increase far more rapidly as the network of participants grows. And as the number of participants grows, the eBay community will become that much more attractive to prospective members.

We believe people will regularly participate in three to five communities that revolve around their passions and goals.

In general, the value of on-line communities has much more to do with their social aspects than anything else. These Internet-based groups allow for what Reed refers to as "human linkages." Members can create their own mailing lists, chat rooms and discussion groups. They can transact with each other, make markets and set up team rooms. All of these allow them to come together around common passions, interests, or goals. Traditional business models don't offer any of these capabilities.

We're not saying that every company that tries to build an on-line community will immediately attract a large following. We're not even saying that every company

should try to build a community of value. In fact, many companies will act as vendors to members of communities hosted by others (like the mutual fund companies who sell through Charles Schwab & Co.'s Schwab One-Source). After all, there's only so much time any given person has to spend each day on the Internet. We expect to see a very small number of large communities and a whole lot of niche ones. You might not be in the least bit interested in joining an on-line community around the topic of toothpaste, for instance. But there are enough people out there who are passionate enough about teeth that you can be sure that there will be a niche community on this topic. Remember: 2^N (the power of group-forming networks) dominates N^2 (the power of traditional networks) even in very small numbers.

We believe that people will join somewhere between three and five communities of one kind or another. An individual might regularly participate in communities that revolve around these passions: profession, hobby, personal

finance, health care, education and possibly a site that focuses on lifestyle or issues of interest to a family with children. As we noted in the last two issues of *A Digital Bit*, the host of an on-line community must provide the right context for its members, as well as host content, promote interactions, and facilitate transactions.

For the industries we deal with – insurance, health care and asset management – there's good news in all this. The target audience – those who are passionate about their health and their finances -- is huge, giving the opportunity to those companies that move quickly to build a strong on-line community. Of course, it is still early and few communities have even

been formed, let alone become a dominant force. But, Reed's law suggests that the spoils will go to the hosts who are the first to establish viable communities.

One of the lessons that can be learned from a company like Microsoft Corp., for instance, is that there is huge value in owning a platform. We think hosting a community of value is the next platform play for the Internet. This strategy may or may not be the right one for your company, but it's well worth considering as you look for ways to take advantage of the Internet.

Next Month:

So why aren't prices cheaper when buying on-line?

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The "Digital Bit" series is designed to offer our clients a monthly snapshot of what the insurance, asset management and health care industries are doing to take advantage of digital technology. If you would prefer to receive the newsletter via e-mail, please let us know. To request additional copies or to add the name of a colleague to the mailing list, you can reach us at digitalbit@diamtech.com or by calling Lisa Castro at 312.255.5041.

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