



## **Technological Wizardry Aside, How Can the Internet Reshape Your Business?**

Now that the once frenzied pace of Internet infrastructure development has hit a lull, businesses can catch their breath and

reflect less on technology and more on the Internet's ability to help companies set strategy.

At a conference entitled, "The Internet and the Twenty-First Century Firm," sponsored by Wharton's Reginald H. Jones Center and IBM's Institute for Knowledge Management, Wharton professors looked at a range of Internet management issues, including intellectual property, marketing and disclosure of intangible assets.

Wharton legal studies professor [Dan Hunter](#) challenged recent legal developments that he said treat cyberspace as a true place with sturdy fences around intellectual property. "This is the major intellectual debate that will take place for the next 10 years," he said. "Which path do we want to travel in the ownership of ideas?"

Should information be packaged by corporations, he asked, "or should we think of this as an environment [where] we would be socially better off if there is some shared

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**Merrill Lynch**

ownership?" He compared the Internet to the old Western frontier, suggesting that "settlers have staked it out and put up barbed wire."

Gradually, the law as well has come to view cyberspace as a place, moving increasingly to provide Internet settlers with property rights protection for their stake. That idea is evident in the way people talk about the Internet, using language that connotes place, Hunter said. We enter "sites;" browsers "navigate" and "explore;" finally, there is the term cyberspace itself. "This representation in language signals a fundamental cognitive process in the way we think about the Internet," he noted.

Privatization of the Internet, Hunter added, is like the privatization of common lands in Medieval England. Initially, villages were arranged around common pastures, where families grazed their privately-owned animals. Eventually individuals seeking greater wealth put more and more animals in the pasture, which was then ruined by overgrazing. To solve that problem, the commons were divided into private lots. But over time, as the population grew, many people were left without land. They became poor even as wealthier landowners consolidated their land holdings.

In the same way, Hunter said, by dividing the Internet into private property, a few will prosper, but at a cost: Innovation and competition that could benefit consumers will be choked off.

Legal cases that initially involved protecting companies and computer users from hackers or spam have been used as precedents to protect companies from competitors, he added,

pointing to a case won by Intel Corp. against a disgruntled worker who sent e-mail to the company's employees using Intel servers. "The courts are saying that [what is being trespassed on] is bandwidth or the processing power of Intel. That's not personal property."

In its early days, he said, the Internet was controlled by academics in an open environment. Commercialization provided capital to build out the net, but it came with privatization. "It's completely changed the way we see the net." Intellectual property principles used in physical property should not apply to the Internet because it is infinite. "It is non-rivalous and non-exclusive. Physical property does not have [those characteristics]."

Hunter said he supports intellectual property laws including those involving copyright and patents. But he is concerned that Internet companies are making intellectual property cases into trespass and property rights issues. Ultimately, he said, society will suffer because companies will bar competition with restrictive terms of use that will kill off innovation. "The point is, we should be making the decision if we want to grant these rights or not," he said. "It's important that we recognize what's happening."

Hunter would like more evidence that tough trespass laws benefit society along with an examination of other potential social constructs to manage the common pastures of the Internet. "It is not ordained that we map a private property system onto cyberspace," he said.

## **Scuba Diving and the Cayman Islands**

In addressing the Internet's impact on pricing, [Eric Clemons](#), professor of operations and information management, noted that by creating greater transparency, the Internet has vast potential to push pricing lower. To compete, he said, firms should differentiate their pricing structures. And by using information technology to fine-tune pricing and customer relations, firms can sell more products at lower prices without cannibalizing high-margin sales. "If you can't overcharge, how can you undercharge?" he asked.

Firms, he suggested, can use signaling, screening and data mining techniques to make sure they have adequate information about their markets to pull off a more complex pricing strategy.

He pointed to life insurance companies that ask whether a potential customer likes to scuba dive. They are really not that concerned about scuba diving, he said, but the answer to that question begs another. What insurance companies really want to know is, "do you have to do truly wild things to get buzzed?"

Versioning, in which firms offer customers different versions of the same product at different prices, is another strategy, said Clemons, citing Priceline.com as a marketer who discovered how to sell airline seats without losing full-price customers. By giving business travelers no choice of airport or a wide range of possible travel times, Priceline discouraged those customers from using the service, saving room for flyers who were willing to be inconvenienced in return for a good price.

Path-dependent pricing is another strategy that

Clemons said might also be called, “never give a sucker an even break.” Marketers tracking web activities with cookies use this strategy to practice price differentiation. He suggested an experiment: Place two computers next to one another. On one computer, surf sites that indicate cheapness. On the other, log into Forbes.com. Then turn each computer to an on-line travel company and order a ticket to the Cayman Islands.

He predicted the computer that surfed cheap sites will get one price. The other, he said, will get a much higher price. “This is not new, but the ability to automate it is new.”

Companies can also create or boost the cost to consumers of switching away from their products. “You get so tangled up in the hassle factor of reregistering your data,” he said, describing his loyalty to hotels in London and Hawaii and his \$300-a-year credit card concierge that he knows will drop other customers who have pre-booked services to respond to him. “I cannot switch to another credit card issuer or hotel chain because of how long it would take me to train them,” he said.

### **Intangible Assets: Alliances vs. Eyeballs**

The current push for disclosure of intangible assets in the wake of the Enron scandal may lead companies to get a better understanding of intangible value drivers within their firms, according to Wharton accounting professor [Chris Ittner](#). U.S regulators, he said, have become interested in disclosure of intangible assets and in Europe it seems certain some form of disclosure will be mandated.

One quick way to calculate intangible assets is to simply subtract hard, bricks-and-mortar assets from market value, said Ittner. But for more meaningful, potentially profit-generating measures, companies need to examine their intangible assets closely to discover which ones generate value and why. "Right now, companies are guessing."

According to Ittner, a number of firms have turned to management with balanced scorecards. But while they are charting many measures, they are not linking them to the bottom line. For example, surveys that show high customer loyalty may not correlate to profits if the customer loyalty is won with excessive spending on marketing.

Wharton researchers have created an index linking firms' market values to a series of characteristics called the Value Creation Index. One of the lowest-ranked characteristics was a company's mastery of technology. Innovation ranked first followed by management and employee quality. One approach to evaluating intangible assets would be to calculate technology spending, Ittner said, "but spending on technology doesn't really tell us anything."

He suggested that analysis, and disclosure, of intangible assets must be industry specific. For example, department store retailer Nordstrom traditionally scores very high in customer-satisfaction surveys suggesting customer loyalty as an intangible asset. But market investors do not reward Nordstrom for this, he said, because they believe the company spends more on attaining that loyalty than it is worth, relative to other retailers.

Ittner said researchers also evaluated value drivers at e-commerce companies and found that the most important characteristic was alliances with other companies, followed by innovation. The standard measure of “eyeballs,” or people coming to the site, ranked third.

Evaluation should also be firm specific, Ittner suggested. He pointed to Pizza Hut, which wanted to give managers incentives to reduce the company’s 400% employee turnover. But it turned out there was a negative correlation to results. “Why? Because the most effective managers got rid of the bad employees faster.”

He said a customer satisfaction survey with 25 questions is meaningless without knowing which questions really are relevant to each specific firm. “If we want to understand value drivers,” said Ittner, “we need to go a lot further on the disclosure side.”



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