Course Schedule

Tuesday, Nov. 2 - Midterm Exam (entire class)

Thursday, Nov. 4 - Karen Hedge

E-Business at Hewlett-Packard
Midterm Exam

Single topic and larger essay questions.

Technical questions, business questions and combinations of both.

Open book and open notes exam.
E-Commerce

The automation of the processes by which we conduct trade.

E-Commerce is an integral part of E-Business which is a broader process of change within and between companies.
E-Commerce is certainly not new. (EDI)

The Internet was not designed for commerce.

It is not the Internet that is most important but the technical standards and business practices it is built on.
Evolution of E-Commerce

1. Frenzy of Web site development.
2. Use of the Internet internally. (intranets)
3. Initial E-Commerce emphasis.
   A. New levels of security. (SET)
   B. Increased bandwidth.
   C. Stable political and regulatory environment.
The Land of e-Everything

Brace yourself. You are going to see a lot more of e-business turmoil next year!
Business to Business E-Commerce

Some of the best company examples:

• Dell Computer
• Marshall Industries
• Micro Warehouse
• Cisco Systems
• Federal Express
### Best Web Support Sites

<table>
<thead>
<tr>
<th>Cambridgesoft</th>
<th>Iomega</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco Systems</td>
<td>Macromedia</td>
</tr>
<tr>
<td>Dell Computer</td>
<td>Microsoft</td>
</tr>
<tr>
<td>Intel</td>
<td>Sybase</td>
</tr>
<tr>
<td>Intuit</td>
<td>Symantec</td>
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</tbody>
</table>

A panel of judges evaluated the sites in terms of performance, usability, content, navigation, appearance, and other factors. In addition, nominees were asked to describe how they overcame major challenges in the development of their sites.
"Delivering good support on the Web is an enormously difficult problem that often involves thousands of documents, complex navigation and search tactics, and an unusually demanding customer base," says ASP executive director Jeffrey Tarter.

"It's not surprising that most of our winners this year are larger companies with the resources to build great support sites. But the judges also found a good many smaller companies that have created great sites on a shoestring. It's tough, but it can be done."
Occasionally, rarely, history is made when a gifted leader, who has a vision of new processes and technologies, produces a brilliant new business model. Henry Ford did it in automobiles and Michael Dell has done the same in PCs. The parallels are remarkable.

Jacques A. Nasser
President and CEO
Ford Motor Company
Ford and Dell?

Appreciated the principle of elasticity of demand.

Innovation in manufacturing.

Vertical integration. (Ford in-house, Dell outsource)

Standardization and modularity of product.

Passed cost savings along to the consumer.

Innovation with a product in a relatively new industry that fundamentally changed the industry.

Popular, low cost product had a major impact on existing products that offered similar function.

Products also had a societal impact.
Dell Computer

Dell Computer is a great American success story. In 1998 Dell was the No. 2 PC manufacturer in the U.S. as a leading supplier of PCs to corporate customers, government agencies and educational institutions.

This all happened because Michael Dell started selling computers from his dormitory room while he was a student at the University of Texas. When he consistently grossed $30,000 a month he concluded that he was onto a business opportunity that was too good to pass up. He quit school as a pre-med student and founded Dell Computer in May 1984.
Dell was a pioneer and has become the leader of the customer-direct, build-to-order computer systems business. Its financial success stems from developing and implementing strategies designed to maximize the strengths of the direct business model.
Dell Business Strategies

1. Speed to market.
2. Superior customer service.
3. A fierce commitment to producing consistently high quality.
4. Custom-made computer products that provide the highest performance and the latest relevant technology to customers.
5. Early and effective exploitation of the Internet.
Virtual Integration

Interweaving distinct businesses so that partners are treated as if they are inside the company.

(A major emphasis on outsourcing non-core business processes)
I have always been fascinated with eliminating unnecessary steps.

When I was in the third grade, I sent away for a test that would qualify me for a high school diploma.

Michael Dell
Benefits of the Direct Business Model

This business model provides the following competitive advantages.

1. It bypasses computer dealers and avoids related price markups.

2. It enables Dell to build each system to a specific customer order, which eliminates inventories of finished goods to resellers and enables it to move faster to new technologies and lower-cost components.
3. It provides direct contact with thousands of customers every day to tailor support offerings to fit customer target markets and to control the consistency of customer service around the world.

4. Leveraging its relationships with key technology partners enables Dell to rapidly incorporate the most relevant new technologies into its products.

5. The low inventory and low fixed-asset model results in the highest returns on invested capital in the computer industry.
Customer Focus

One focused vision made Dell the world's leading direct computer systems company, with 29,300 employees in 33 countries around the globe. One bold concept—direct customer contact—has made Dell one of the most successful companies of the 1990s.

Nearly two-thirds of Dell's sales are to large corporations, government agencies and educational institutions. Dell also serves medium and small businesses and home-PC users.
What do they actually do?

Through the direct business model, Dell offers in-person relationships with corporate and institutional customers; telephone and Internet purchasing; customized computer systems; phone and online technical support; and next-day, on-site product service.

Dell arranges for system installation and management, guides customers through technology transitions, and provides an extensive range of other services. The company designs and customizes products and services to the requirements of the organizations and individuals purchasing them, and sells an extensive selection of peripheral hardware and computing software.
What about the financial numbers?

Dell led the computer industry in performance against all three of its major priorities: growth, profitability and liquidity.

Net revenue for the fiscal year ended Feb. 1 increased at four times the industry rate, rising 59 percent versus the prior year to $12.3 billion. By the end of fiscal 1998, Dell had reported record revenues for 37 of the last 39 quarters. It became the second-largest manufacturer and marketer of personal computers in the United States and was No. 3 worldwide.
Key number were good!

Net income rose 82 percent and return on invested capital, the financial measure that best indicates the creation of shareholder value was 186 percent for the year, leading the computer industry.

Dell also set industry standards for inventory management and efficient use of assets. It ended the year with seven days of supply in inventory, versus 80 days or more combined for indirect companies and their resellers. Dell's efficiencies contributed to cash flows from operations totaling $1.6 billion.
What about stock value?

Its stock price rose more than 200 percent during calendar-year 1997, the largest share-price gain within the Standard & Poor's 500 and Nasdaq 100, and second-best on the Dow Jones World Stock Index.

At fiscal year-end, the value of its stock had risen by nearly 140 percent annually, on average, over the previous five years--and was worth more than 140 times its price at the June 1988 initial public offering.
Several of Dell’s competitors announced initiatives intended to emulate characteristics of how it purchases materials for, builds-to-order and ships computer systems.

At the end of the year, though, the competitive environment—including Dell's fundamental advantages in efficiency and pricing—remained essentially unchanged for three main reasons.
First, efficient procurement, manufacturing and distribution represent important elements of its business model, but that is not entire story.

Unlike most other computer systems companies, Dell has direct relationships with all of its customers, and organizes its business around well-defined customer segments to focus on and deepen those relationships. It continues to believe that its direct model is the approach best suited to understanding and fulfilling customer needs. Independent reports of customer satisfaction continue to support that conclusion. It should also be noted that Dell has fifteen years of experience in implementing and refining its business model.
Second, the value customers receive as a result of Dell’s pricing advantage does not alone account for its past performance.

Two-thirds of its customers tell them that they select Dell for reasons other than price, among them value-added services and insight as to technology trends. They recognize that the systems that Dell designs and builds are consistently rated among the industry's best. Further, they appreciate having a single point of contact and accountability for their product and service needs.
Dell Advantage

Third, Dell continues to enhance its direct business model.

The Internet provides vivid evidence of how it is taking this model to higher levels of efficiency. It is using www.dell.com to make it easier for customers to do business with them, reduce costs and enhance relationships with both customers and suppliers.
Dell Time Line

1983 Michael Dell does business out of his dormitory room at the University of Texas in Austin.
1984 Starts Dell Computer with $1,000 in capital and becomes the first to sell custom-built computers directly to end-users.
1986 Dell offers the industry’s fastest performing computer, and provides a thirty day money back guarantee and the industry’s first on-site service program.
1987 Opens first international subsidiary in the UK.
1989  The company experiences its first major problem based on excessive inventory of memory components which results in a major write-down and cancellation of a product development program.

1990  Dell becomes the first PC company to jump into retail stores with CompUSA and Best Buy. It later became the first company to exit the retail store channel.

1993  Pains of rapid growth results in its only quarterly loss, its withdrawal from the notebook market, its exit from retail stores and a restructuring of its European operations.
1996  Dell starts selling custom-built computers over the Internet and quickly realizes sales of $1 million a day. It also established its first web links for major customers.

1998  Internet sales exceed $12 million a day. It expanded its Premier Page program to 9,000 customers and established Internet links with its suppliers.

1999  Dell passes Compaq to become the number seller of PCs in the US in the third quarter by selling 2 million units.
Dell Computer

But what about the Internet?
Dell and the Internet

If you sat back and said, let’s design a technology that could radically impact this company in positive ways.

It would be hard to create one better than the Internet. It essentially puts us that much closer to our customers. It is the ultimate form of direct for us. Because we were already dealing directly with our customers, it was a natural extension for us. We didn’t have to change the way we do business in order to do business on the Internet. Everything was already in place. A nice plus is that the Internet lowers the cost of doing business for us and our customers and it speeds transactions whether you are talking about sales, support or customers getting information.

Michael Dell
A tailored web page for major customers that contains:

• Purchasing procedures
• Approved computer configurations
• Negotiated prices
• Purchase authority limits
• Order history and discount levels

This cuts order time, helps decrease order errors, keeps track of shipment status and has a record of all Dell units by serial number.
Dell employs over 2,000 engineers who focus on providing leading-edge products.
Strong Business Alliances

1. **Exploit the talents and the investments of the experts.** Find out where you can add the most value to your customers and shareholders and find great partners to do the rest.

2. **Keep things simple.** Complicated supplier relationships mean one thing--complications. Fewer suppliers mean fewer opportunities for error, less cost, less confusion and greater consistency. With suppliers, less is really more.
Strong Business Alliances

3. Keep your friends close, and your suppliers closer.

Bringing your suppliers into your business is a hallmark of virtual integration. Keeping them geographically or electronically close results in better service, heightened communication, lower costs and faster time to market.
4. **Invest in your mutual success.** Take the time to communicate your company’s goals and strategies to your suppliers. There is no benefit to perpetuating the bid-buy cycle. Your suppliers can’t be a business partner if it doesn’t know what you are trying to accomplish. The challenge is to maintain a healthy level of flexibility and open channels of communication so that suppliers can provide what customers want and need. Look for complementary strengths and management styles to ensure the proper alignment of your goals.
5. Be explicit, and be objective. Your quality and defect tolerance must be detailed clearly at the outset and consistently throughout your relationship with your suppliers. Use precise metrics to gauge how well a supplier is meeting its criteria and create a self-enforcing check and balance system.
Creating strong business partnerships with suppliers is fundamental to the success of your business. But using them to become a source of competitive advantage is something else altogether.
The Internet provides a dramatic reduction in the cost of transactions and the cost of interaction among people and businesses, and it creates dramatic new opportunities and destroys old competitive advantages. The Internet is like a weapon sitting on a table ready to be picked up by either you or your competitors.

Among Fortune 500 companies, only two percent don't have a web site, and there's been a dramatic uptake in the number of companies that offer interactive services and e-commerce on their sites.
The first is velocity, the compression of time and distance, which is the ultimate source of competitive advantage.

The second is efficiency in execution, which will be as important as products and services.

And finally, the web experience must be better than any experience in a physical world to create a truly sustainable advantage. It's more than just selling online; it's creating a better experience online than offline.

Michael Dell Internet Rules
Velocity

Velocity is really about a business shrinking time and distance, both across the supply chain with suppliers and over to the customer. The reduction of time, the reduction of inventory, and the reduction of physical materials and assets can drive a tremendous improvement in business efficiency. As this occurs, businesses become more efficient and better able to meet customer needs. A customers' purchasing decisions are becoming faster and they have direct access to information that they need immediately. Today, customers can compare products around the world over the Internet. This has dramatic implications for companies that previously had based their strategies on having a physical location, and having customers go there to buy their products.
Efficiency in execution will be at least as important as product and services. Efficiency for some companies is related to cost-cutting, which too often means there's a drop in the level of service. At Dell, harnessing the power of the Internet means bringing about a dramatic improvement in efficiency, speed and cost savings to the business and to ours. Over the phone, customer calls cost between $3 and $10 each. The Internet lowers the cost to zero in a majority of cases.
Service efficiency is really about compressing time for resolution while lowering the cost for our customers and for Dell. Dell is able to solve 80 percent of customer issues on the phone without having to dispatch an onsite service provider. This compares to the industry average of about 27 percent. As a result, its customers have less down time and lower costs. This is accomplished partly by extending service tools to customers over the Internet and by creating custom help desks that customers can use in addition to a publicly-available help desk.
The Web experience must be better than any experience in the physical world if you want to create sustainable advantages and relationships that need loyalty over time. Research has shown that e-shoppers are more loyal to a customer experience than traditional drivers like product or price. In fact, the top two things that are driving e-loyalty are the quality of customer service and on-time delivery. In evaluating how to leverage the Internet, consider how the customers' experience is actually enabled online. A company is probably vulnerable if the experience has not been part of brand differentiation. Dell is trying to do every thing that it can to drive a superior online experience to the physical experience.
A Dell example is its Premier Page strategy. This allows customers to access automated paperless purchase orders, custom-defined configurations, order tracking and status, a worldwide view of their assets, and customized service tools. The goal is to deepen customer relationships providing added convenience, cost savings, and efficiency for them, and a wider array of services. Premier Pages also help improve the customer experience by tying orders directly into manufacturing process and reducing the lead time for delivering systems.
All these capabilities are in support of an ultimate goal of a direct business leveraging the Internet at every step. Dell had done a major upgrade of its technical support call center to improve velocity and efficiency. This is a mission critical application for Dell, as its tech support handles about eight million calls each year. It wants the tech support representatives to have the information they need within a few keystrokes. To do this, they migrated from a legacy architecture to an NT architecture. The new system has reduced average call time by 30 seconds in some of our highest volume areas which based on its volumes of calls is a significant improvement and cost savings.

Fully Leveraging the Internet
Dell links its suppliers and business operations and processes in real time using the Internet, so it can build a tool that can be used internally with suppliers. It is called valuechain.dell.com and it provides suppliers with secure personalized access to Dell through a single portal. The focus is on collaboration with suppliers to virtually manage a supply chain in terms of quality, continuity of supply, and product development.
One of the key applications is a scorecard, which allows suppliers to see their performance against key Dell metrics. The metrics have been set for each supplier to provide the highest quality and reliability to customers, and it helps drive quality at the component level. Each supplier can see its score against these metrics and compare how they're doing based on other suppliers in the same class.

Valuechain.dell.com also helps improve inventory turns. Because suppliers get a direct view into manufacturing operations, they can see how fast their components are moving through the production lines. The tool drives clear demand signals and is the best example of replacing inventory or physical assets with information, a key tenet of a successful Internet business model. Improving inventory velocity for suppliers and Dell means the customers have faster access to the latest technology, which means time-to-market advantages and cost advantages.
Conclusions Regarding Dell

1. If you offer a better price, a better level of service and the latest technology directly to the customer, why would you need to sell through a dealer?

2. Mass customization is possible because Dell is able to deliver basic modules that are combined in different ways for each customer.

3. The Internet helped solidify Dell’s position as a direct marketer.
Cisco Systems

Implemented Cisco Connection Online (CCO) in 1993 as a web-based order entry system at a cost of about $3 million.

Wants to be a model user of its own equipment and “its own network.”

CCO provides twenty-four/seven world access.

Claims to generate 80% of its revenue through CCO.

Serves 1,200 customers exclusively online.

Claims an annual savings of $500 million while increasing customer satisfaction.
Cisco Web Awards

Cisco Connection Online is ranked #1 in this year's Net Marketing 200 best business-to-business Web site. The sites were graded and ranked based on a variety of criteria, including ease of navigation, design, presentation, and e-commerce capabilities.

The Association of Support Professionals bestowed the Top Ten Support Site Award upon CCO based on performance, usability, content, navigation, and appearance.

CCO is Three-time Winner of CIO's 50/50 Award
Cisco Connection Online once again received the coveted WebBusiness 50/50 Award from CIO Magazine! Cisco is the only company to win the Third Annual 50/50 Award three years running. "King of the hill among our repeat winners, of course, is Cisco, which scored not only in both 1997 and 1998 but picked up honors on the intranet/extranet side all three years as well."

**CCO Ranks #1 of the 100 Hottest Companies on the Net**

Cisco and its web site, Cisco Connection Online is rated #1 by Business 2.0 as the leading company of the Net Economy. Business 2.0 surveyed more than 600 candidate companies to find the leading 100 contenders. Cisco was chosen as the top company because it leverages market-value power for acquisitions that redefines the competitive landscape. "Cisco not only creates the network tools that others use to excel, but has built the most intelligently Net-savvy company going."
This three-time 50/50 winner just keeps getting better. Last year, high-tech manufacturer Cisco took 41 percent of its orders online, averaging $10 million a day in e-commerce. This year, it's 73 percent and $22.8 million. Cisco, also an intranet 50/50 winner, credits CCO with cutting costs, boosting productivity and increasing order accuracy.
Cisco Systems

A major Internet player.

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Profit</th>
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</thead>
<tbody>
<tr>
<td>1999</td>
<td>$12.1 B</td>
<td>$2.0 Billion</td>
</tr>
<tr>
<td>1998</td>
<td>8.5 B</td>
<td>1.4 B</td>
</tr>
<tr>
<td>1997</td>
<td>6.5 B</td>
<td>1.1 B</td>
</tr>
<tr>
<td>1996</td>
<td>4.1 B</td>
<td>.9 B</td>
</tr>
<tr>
<td>1995</td>
<td>2.2 B</td>
<td>.5 B</td>
</tr>
</tbody>
</table>

Stock splits four times in five years.

Did $1.3 billion in John Chamber’s first year as CEO.
If we do it right, we have a chance to become one of the most influential companies in history.
Marshall Industries


Has become one of the largest global distributors of industrial electronic components and production supplies in the world.

Provides a full range of web services including shopping, ordering, order tracking, interactive training and online technical support.

Broadcasts voice, data and video seminars to customers and business partners in 27 languages.

A frequent award winner for web accomplishments.
Ways for a Business to Use the Internet

1. Provide online buying and selling.
2. Provide online auctioning or exchanging.
3. Provide information about products, services, support, resellers, etc.
4. Provide training.
5. Provide discussion forums.
6. Deliver software or data.
7. Do research.
Internet-based Opportunities

Support
• Customer Service
• Communication
• After Market Sales

Marketing
• Awareness Creation
• Interest Stimulation
• Education

Delivery
• Product Delivery
• Shipment Tracking

Sales
• Demonstrations
• Transactions
• Channel Referrals
1 REENGINEER YOUR COMPANY
The Internet lets you communicate instantly with every supplier, partner, and customer--and, in many cases, lets them communicate with each other.

2 THROW OUT THE OLD BUSINESS MODEL
Ask a very basic question: Just who are you in the Internet Age? As you face more global competition online and have to cut your prices, doesn’t it make sense to reexamine your business model?
3 REALIZE THAT THE BUYER ALWAYS WINS
Understand that the buyer runs the show on the Net. Up to now, buyers faced big obstacles to getting the best prices and service--limited time and data to compare vendors' products and the cost of dealing with far-flung suppliers. No more. The anytime-anywhere Net knocks down those barriers.

4 HOLD YOUR CUSTOMER'S HAND
Roll out the red carpet--or whatever the cyber-equivalent is. You can use some nifty software package that analyzes purchases and suggests other things the customer might buy. That kind of software helps sell more to customers at little extra cost and treats them as individuals. It is called Customer Relationship Management.
5 OUTSOURCE NON-CORE BUSINESS JOBS
The instant communications power of the Net shatters the physical-world need to do product development, manufacturing, distribution, marketing, and customer management all in-house. There are lots of specialists that can do everything from hosting our Web site to running warehouses.

6 NO WEB SITE IS AN DESOLATE ISLAND
In going online, an established brand name and purchasing power can work to a company’s advantage.

7 CREATE AN ONLINE SENSE OF COMMUNITY
Think global. People all over the world are congregating into virtual communities on the Web.
8 FOLLOW THE MONEY
Now that the Silicon Valley venture capitalists are scouring the country for new industries to wire up, keep your eyes on what startups are getting funded in the online world.

9 A WEB OF NERDS? DON'T BELIEVE IT
By 2003, International Data Corp. estimates 510 million people will be online worldwide.

10 GET EXECUTIVES LOGGED ON
Only 25% of CEOs in a recent PricewaterhouseCoopers survey regularly log on to the Net. It really helps to get your fingers on a keyboard every day. This is something you can't delegate.
## Computer Usage Growth is Flat

Do you use a computer?

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>63%</td>
<td>68%</td>
<td>63%</td>
<td>62%</td>
</tr>
<tr>
<td>No</td>
<td>37%</td>
<td>32%</td>
<td>37%</td>
<td>38%</td>
</tr>
</tbody>
</table>
Despite More Home Users

Where do you use your computer, primarily?

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>1998</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>42%</td>
<td>39%</td>
<td>35%</td>
</tr>
<tr>
<td>Work</td>
<td>40%</td>
<td>41%</td>
<td>41%</td>
</tr>
<tr>
<td>Elsewhere*</td>
<td>19%</td>
<td>23%</td>
<td>21%</td>
</tr>
</tbody>
</table>

*School, library, etc.

NOTE: 19% of all adults use a computer both at home and at work, 12% use at home only, and 10% use at work only.
Excluding E-mail, how much time do you spend on the Internet in a typical week?

<table>
<thead>
<tr>
<th></th>
<th>At Home</th>
<th>At Work</th>
<th>All People Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.7 hours</td>
<td>4.3 hours</td>
<td>6.2 hours</td>
</tr>
</tbody>
</table>
Online Growth Has Slowed...

Do you use the Internet or go online?


Yes  41%  43%  36%  30%

NOTE: 72% of all adults who use a computer at home go online, while 48% of people who use a computer at work go online.
The Dropout Rate Is Significant

If you do not use the Internet, have you never used it or have you stopped?

Never Used 79%
Stopped 21%
Plenty of Newcomers

How long have you been using the Internet?

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months or less</td>
<td>20%</td>
</tr>
<tr>
<td>6 months to 1 year</td>
<td>15%</td>
</tr>
<tr>
<td>1 to 2 years</td>
<td>29%</td>
</tr>
<tr>
<td>2 years or more</td>
<td>36%</td>
</tr>
</tbody>
</table>
Cybershopping Is Up Sharply

If you go online, have you ever purchased anything?

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>1998</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>31%</td>
<td>22%</td>
<td>19%</td>
</tr>
</tbody>
</table>

NOTE: Expressed as a percent of the total population, 14% of adults have bought something online.
## What Did You Buy?

<table>
<thead>
<tr>
<th>Category</th>
<th>1999</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books or music, total</td>
<td>47%</td>
<td>17%</td>
</tr>
<tr>
<td>Books</td>
<td>38%</td>
<td>--</td>
</tr>
<tr>
<td>Music</td>
<td>15%</td>
<td>--</td>
</tr>
<tr>
<td>Software</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>Computer Hardware</td>
<td>15%</td>
<td>26%</td>
</tr>
<tr>
<td>Airline Tickets</td>
<td>10%</td>
<td>3%</td>
</tr>
<tr>
<td>Clothing</td>
<td>9%</td>
<td>--</td>
</tr>
<tr>
<td>Flowers</td>
<td>5%</td>
<td>--</td>
</tr>
</tbody>
</table>

**NOTE:** Categories less than 5% not shown.
Targeted Advertising Is a Concern

If you go online, how willing are you to share personal and financial information about yourself so that online ads can be targeted to your tastes and interests?

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>1998</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Willing</td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Somewhat Willing</td>
<td>14%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>Not Very</td>
<td>21%</td>
<td>22%</td>
<td>23%</td>
</tr>
<tr>
<td>Not Willing At All</td>
<td>63%</td>
<td>62%</td>
<td>64%</td>
</tr>
</tbody>
</table>
It's a Battle for Eyeballs with TV

Does the time you spend on the Internet or online mean you spend less time:

<table>
<thead>
<tr>
<th>Activity</th>
<th>1999</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watching TV</td>
<td>45%</td>
<td>47%</td>
</tr>
<tr>
<td>Exercising</td>
<td>24%</td>
<td>19%</td>
</tr>
<tr>
<td>Reading</td>
<td>23%</td>
<td>26%</td>
</tr>
<tr>
<td>Sleeping</td>
<td>15%</td>
<td>11%</td>
</tr>
<tr>
<td>Working</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Eating</td>
<td>5%</td>
<td>7%</td>
</tr>
</tbody>
</table>
The Net Audience Likes Narrowcasting'

Thinking about what you do online, how often do you:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get information about a hobby or special interest</td>
<td>1999</td>
<td>1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28%</td>
<td>37%</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>41%</td>
<td>39%</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surf and explore new sites</td>
<td>1999</td>
<td>1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26%</td>
<td>28%</td>
<td>23%</td>
</tr>
<tr>
<td></td>
<td>35%</td>
<td>42%</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gather information about products and services</td>
<td>1999</td>
<td>1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20%</td>
<td>22%</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>42%</td>
<td>37%</td>
<td>21%</td>
</tr>
<tr>
<td>Activity</td>
<td>1999</td>
<td>1998</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------</td>
<td>------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Do research for work or school</td>
<td>39%</td>
<td>42%</td>
<td></td>
</tr>
<tr>
<td>Check on news updates, etc.</td>
<td>24%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Get health-related information (new)</td>
<td>11%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Get information on local amusements and activities (new)</td>
<td>14%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>1999</td>
<td>1998</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Find and download software</td>
<td>9%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24%</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Download or play games</td>
<td>16%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Make travel plans or reservations (new)</td>
<td>7%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Financial management or investing</td>
<td>12%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22%</td>
<td>14%</td>
<td></td>
</tr>
</tbody>
</table>
Participate in chat groups

<table>
<thead>
<tr>
<th>Year</th>
<th>1999</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9%</td>
<td>6%</td>
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</tbody>
</table>

Take courses (new)

<table>
<thead>
<tr>
<th>Year</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1%</td>
</tr>
</tbody>
</table>

The 1999 figures are from a telephone poll conducted by Louis Harris & Associates among 1,008 randomly selected adults 18 and over. Online users numbered 447. Jan. results combine the latest survey with a January poll of 1,007 adults.