YAHOO!

Yahoo!: Business on Internet Time

The word "portal"…is now the second-most-meaningless word in Netspeak. (The most meaningless word is "strategy," which appears to mean something along the lines of "blind, headlong, mindless pursuit of the latest analyst-endorsed Internet fad.")[1]

Tim Koogle, CEO of Yahoo!, leaned back in his bright yellow chair. Huddled around the purple table with him were Jerry Yang, co-founder of the company and Chief Yahoo, and President Jeff Mallett. The trio debated the recent flurry of competitive moves and puzzled over their options.

Several days earlier, on January 19, 1999, @Home had announced its plan to acquire Excite, Yahoo!'s arch rival. Like Yahoo!, Excite sought to provide consumers a point of entry into the World Wide Web. @Home offered high-speed access to the Internet via networks owned by cable television companies. The Excite / @Home deal came only two months after America Online, the online service provider with the largest number of subscribers, acquired Netscape. Netscape not only manufactured the browser software that many people used to navigate the web, but its Netcenter web site was one of the most popular portals on the web. Months earlier, Disney had taken a large stake in the portal Infoseek, and NBC had allied with Snap. Rumors swirled that Lycos, a portal with an array of online "channels," was also in the midst of merger talks.

Koogle, Yang, and Mallett had grown used to rapid change and adjustment in their three years together at Yahoo!. Even by Internet standards, however, January of 1999 was an unusually hectic month. Soon, Yahoo! might be the only portal without a major partner. Independence and a simple vision had served Yahoo! well so far. The company aimed to be "the one place in the world that anyone would need to go to find anything, locate anybody, or buy anything."[2] Through its web pages, Yahoo! sought to tailor the vast information available on the Internet to suit individual web users. It then "delivered" those users to companies that hoped to sell products to the users. Payments from the companies, not from the individual users, made up Yahoo!'s revenue. Though its service had evolved over the years (**Exhibit 1**), its basic approach had remained the same.

Investors had bet heavily that Yahoo! would make this approach profitable. The company's market value stood at $30 billion, up 2,600% since its IPO in April, 1996. Yahoo! booked revenue of $203 million in 1998, and analysts projected growth to as much as $362 million in 1999 (**Exhibits 2** and **3**). While most of its direct rivals were losing money, Yahoo! had recorded over a year and a half of increasing profits.

Jay Girotto, MBA 1999, and Professor Jan W. Rivkin prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

Koogle and his team now debated whether, and how, the company should adjust its approach in light of recent events. Publicly, the team had been silent on its options. Rumors circulated, however, that major media companies, telecom providers, banks, online retailers, and other portals were interested in deeper relationships with Yahoo!. In addition, with its lofty stock price, Yahoo! had the financial muscle to acquire any of an array of other Internet companies.

Evolution of the World Wide Web

The Internet. The Internet emerged from an infrastructure initiative undertaken by the Department of Defense in the 1960s. To ensure that the military communications system could survive a nuclear strike, the Department developed a new kind of network that had no central authority and could function even if most of the system were in tatters. Two principles guided the development of the network: networked computers had equal status, and each sent and received messages. If one node were destroyed, the others could continue to communicate. All of the messages were sent in packets going from one node to another. The routing of information packets along many paths remained a distinguishing characteristic of Internet technology in 1999.[3]

Until the end of the 1970s, use of the nascent Internet was confined to the military and to defense contractors. In 1986, the modern Internet was born when the National Science Foundation used five supercomputers to link scientific researchers from around the country. Researchers used the Internet chiefly to exchange electronic mail and to transfer files. Between 1986 and 1991, the Internet remained a tool used in a limited fashion by the military and by academic researchers.

The World Wide Web. In 1991, Tim Berners-Lee, a researcher at the European Laboratory for Particle Physics, wrote the basic parameters of a new language for describing computer documents. The language, known as hypertext mark-up language or HTML, could describe text, data, graphics, video, or audio. By clicking on certain pieces of text or images called hypertext links, a computer user could transfer automatically from one HTML document to another. As individual computer users wrote documents in HTML and placed them on the host computers that constituted the Internet, the World Wide Web emerged.[4]

In 1994, a small team at the U.S. Center for Supercomputer Applications created a "browser," a piece of software that permitted computer users to view HTML documents easily. Marc Andreesen, the mastermind of this effort, left the Center and, with James Clark, founded Netscape Communications to commercialize the product for the mass market. Netscape gave users copies of the reworked browser for free.

As the software required for the web proliferated, so did the hardware. Personal computers (PCs) penetrated homes and offices rapidly during the 1990s as PC prices fell and performance improved at a dramatic clip. From 1990 to 1997, worldwide shipments of personal computers grew at a rate of 24% per year. By 1999, an estimated 367 million PCs were installed around the globe. Modems, which permitted PCs to communicate with computer networks over telephone lines, were standard equipment on new machines. (See **Exhibit 4**.)

In January, 1999, more than 100 million individuals used the World Wide Web. It was estimated that the web added 42,000 new users a day, or one new user every two seconds (**Exhibit 5**).[5] The number of "host computers," storing HTML documents for public access, rose from approximately 2.2 million in January, 1994, to 43 million in January, 1999.[6] Though first popular in the United States, the World Wide Web was growing rapidly around the globe. In 1998, major U.S. sites reported that between 10% and 30% of traffic came from users outside of the U.S. Of international visitors to U.S. sites, 39% came from Europe, 28% from Asia, and 26% from Canada. In addition, sites based outside of the U.S. were prospering and drawing international visitors. The sites of the Japanese newspaper *Asahi Shimbun* and the British *Daily Telegraph,* for instance, drew more than 40% of their users from outside their home countries.[7]

Portals

Both capitalizing on and catalyzing the early growth of the World Wide Web was a small group of web sites that helped users navigate the web. Before these sites arose, users learned about interesting web pages either by following hypertext links from one page to another or by receiving a lengthy web address (or universal resource locator, URL) from a friend. Starting in 1994, with a web page entitled "Jerry's Guide to the World Wide Web" (later renamed Yahoo!), navigational sites began to catalog individual sites on the web. Some navigational sites, such as Yahoo!, classified web destinations under general headings in a manner similar to the way the Library of Congress categorized books. Users followed a hierarchy of headings and subheadings to find relevant web pages. Other navigational sites, such as Lycos and Infoseek, compiled keywords from web pages into databases which users could query. These "search engines" typically used software called "spider technology" that continuously combed the web to capture, store, and index the latest site information. (See **Exhibit 6**.)

Navigational sites grew to be among the most viewed sites on the World Wide Web, capturing 15% of all online traffic in 1998. (By comparison, the six major television networks captured 67% of the total viewing audience in prime time.) Early on, Infoseek and Lycos focused on search technology. Lycos was awarded several patents for its spider technology, while Infoseek began to charge 10¢ per search. Over time, various search technologies emerged, and several of the navigational sites decided to outsource the search function to third party providers. Companies such as Alta Vista developed search technologies and licensed them to a number of different navigational sites.

In early 1997, two of the prominent navigational sites—Yahoo! and Excite—began to add content and features to their sites at a quickened pace. Other companies soon followed. The first additions provided users with information: news headlines, sports scores, stock prices, and so forth. By late 1997 and into 1998, the sites added more sophisticated features. Navigational sites gave users e-mail boxes and provided them space to create personal homepages. Auctions, shopping, and financial services allowed users to buy and sell items online. Chat rooms and online gaming brought users together in a community. A timeline in **Exhibit 7** shows, for example, the sequence of moves by which the major companies added online games to their sites.

Increasingly, industry executives and observers referred to the sites—no longer just navigational tools—as "portals," a term coined by Halsey Minor, the CEO of CNET, in 1997.[8] **Exhibit 8** ranks some of the major portals along a number of dimensions that were closely followed in the Internet community.

Customers. Portals had two distinct sets of customers: the non-paying web users who came to a portal's web site to use its services, and the paying companies that were trying to market products or services to the users.

Individual users turned to the World Wide Web in order to look for information, to communicate with others, and to buy and sell items. Users counted on portals to guide them efficiently to the information, people, and products they sought. Users spent approximately one-quarter of their online time conducting searches and using reference directories; one-third sending messages and chatting with other users; and one-third exploring other web-page content.[9] The demographic profile of portal users mirrored that of web users as a whole. In 1998, men aged 18 or above accounted for 48% of web users, women aged 18 or above accounted for 34%, and children between the ages of 2 and 17 constituted the remaining 18%. Among households with web users, most had an income greater than $60,000, and 79% had a household member with at least some college education. A typical visit to a portal lasted over 8 minutes and consisted of viewing 6 separate pages.[10]

Web users selected among portals based on quality of information, ease of interface use, and brand recognition. Sheer habit also played a role. When launched, web-browsing software went automatically to a particular web site, the user's start page. The software maker designated this page initially. A knowledgeable user could change the start page easily, but many users never bothered to do so.

All of the major portals made their basic services freely available to the public. Portals earned revenue not by charging individual users, but by charging companies which hoped to sell products and services to users. For such companies, the portals displayed advertisements and guided users to the companies' own web sites, where they might buy goods. In return, the portals earned advertising revenue and, in some cases, a referral fee if a user went to an advertiser's site and bought a product.

Advertisers structured their payments to portals in a number of ways. Under the most common arrangement, the advertiser paid the portal a fee per 1,000 users exposed to the advertisement (cost per thousand, or CPM). Advertisers paid more for "targeted placements" of ads. For example, an advertisement for Charles Schwab placed on a portal's finance page or on a page generated by a finance-related search would achieve more "click-throughs" to the Schwab site than would a similar ad placed on the portal's main page. Accordingly, Schwab would pay more for the former than for the latter. Typical CPMs ranged from $5 for a placement on a main page to as much as $200 for a targeted placement. For comparison, **Exhibit 9** shows CPMs for other media.

Total expenditures for web-based advertising increased from essentially $0 in 1994 to an estimated $2 billion in 1998. Expenditures were expected to rise in line with the number of web users. Projections of expenditures in 2002 ranged from $8 billion to $15 billion. Forrester, an information technology research company, estimated that portals claimed 52% of total expenditures on web-based advertising in 1998. By comparison, the top six television networks captured 84% of the TV-based prime-time advertising in 1998.[11] (See **Exhibit 10**.)

Portals also earned referral fees from electronic commerce providers, that is, companies selling goods via the web. For instance, if a web user on Yahoo! clicked on an Amazon.com ad and bought a book, Amazon might pay Yahoo! a percentage of the revenue generated by the purchase. Such percentages ranged from 2% to 30% depending on the type of transaction, the prominence of partner placement, and the volume of transactions. Total electronic commerce expenditures by consumers were estimated to be $8 billion in 1998 and were projected to reach as much as $52 billion by 2002. Portals usually preferred to be paid per click-through rather than as a portion of revenue since the former was more easily audited.

Marketing executives of many companies expressed mixed feelings about online advertising and commerce. On one hand, the web allowed a consumer to purchase an advertised good almost immediately after seeing the ad. It also permitted advertisers to target consumers more precisely than did traditional mass media. On the other hand, most marketing executives were unsure about how to create and place online advertisements. In response to this uncertainty, a host of new companies arose to help marketers create online ads, place them on appropriate web sites, and monitor their performance.

Suppliers. Information content, advertising media, labor, and technology were the major inputs employed by portals. As the number of portals rose, portals increasingly tried to provide unique information in order to attract users and extend the length of their site visits. Portals purchased information content from traditional media companies such as the Cable News Network, Dow Jones, and Walt Disney. Excite, for instance, obtained most of its sports-related content from CBS's Sportsline site and relied on Intuit to design and provide information for its finance pages. When Infoseek sold a minority stake to Disney, it gained access to content such as ABCNEWS.com and ESPN SportsZone.

Portals struck a variety of deals with information providers. For unique content like real-time news with a recognized brand name, portals paid the provider a fee which might approach $50,000 per month. For specialized content less crucial to the portal, monthly fees in the $2,500 to $20,000 range were typical. Smaller content sites seeking exposure might receive no payment at all up front; indeed, they might give a portal exclusive rights to their content in exchange for placement. Advertising revenue associated with such deals was often split between the portal and the information provider. The content provider might retain 60% of the advertising revenue in addition to or instead of a flat fee. The precise terms of deals between information providers and portals varied substantially, with more popular portals striking much more favorable deals than less popular ones.

Portals spent approximately half of their composite revenue on sales and marketing in 1998. The cost of building a recognizable brand name on the Internet was estimated to be $60 million-80 million per year in 1998 and had risen substantially recently. Most of a portal's marketing dollars were spent on spot television advertising. Several portals had just made the move to national advertising with the 1999 Super Bowl. Much of the print and consumer marketing was done through barter agreements. The most powerful marketing for portals often involved online / offline consumer promotions. For example, for the 1998-99 season, Yahoo! was the official online site to vote for the NHL all-star team. In exchange for NHL coverage on Yahoo! Sports, Yahoo! received announcements and advertising at ice hockey arenas.

Portals competed intensely for labor, especially because most of the portals were headquartered in Silicon Valley, where skilled programmers and engineers were currently in great demand. As portal stock prices rose, it became difficult to attract top talent with the prospect of stock option appreciation. It was estimated that the annual cost of supporting a full-time worker in Silicon Valley was $200,000; a typical estimate elsewhere was $100,000. Turnover added to the high cost of labor. It was easy and common for sought-after computer programmers to "job-hop" when the perceived value of their options faltered.

Portals performed much of their computer programming in-house, but also turned to technology partners to add some forms of functionality to their sites. Common partners included companies that offered secure financial transactions, communication tools such as e-mail and instant messaging, and software tools for creating homepages. For many technology partners, adoption of a technology by a leading portal was a major event that marked the "arrival" of the partner.

Complements. To gain access to the World Wide Web, an individual needed a computer with a modem, browser software, and a telecommunications connection to the Internet. A wide variety of companies sold computers in a hotly competitive market. Two products dominated the market for browsers: Netscape's Navigator and Microsoft's Internet Explorer. Microsoft's browser was bundled with its operating systems and distributed with most PCs. Many users of Navigator obtained it by downloading the software over the web.

Telephone companies, cable television providers, online services companies, and specialized Internet Service Providers (ISPs) vied to sell access to the Internet.[12] Most home users got access to the Internet over conventional copper telephone lines, which tended to provide relatively slow connections at 28.8 or 56 kilobits per second. In contrast, new "broadband" technologies could transmit signals at rates from 1.5 megabits per second (mbps) to as high as 50 mbps. In 1999, companies were pursuing a range of broadband technologies. Many local telephone companies hoped to use "digital subscriber line" technology, which utilized existing copper telephone lines more efficiently. Other companies were trying to use the cable television infrastructure that passed 70% of U.S. homes.

Many users had high-speed access to the Internet at work, and with 750,000 subscribers at the end of 1998, broadband had established a small beachhead in the home ISP market. Industry experts were divided over how quickly home users would migrate to high-speed access. One observer quipped that "broadband technology has been 3-5 years off for 3-5 years." Others felt that the technology verged on a commercial breakthrough. The new technologies required infrastructure investments that ranged from a few hundred dollars per subscriber to more than $1,000. These costs were likely to decline over time.

To permit the rapid loading of web pages at slow transmission rates, many web sites were currently designed to include little but text and simple graphics. High-speed access might open the web to a host of new services, including movies delivered on demand, videoconferencing, interactive shopping, and games with multiple players and rich graphics.

Yahoo!

History. Yahoo! began as a hobby of David Filo and Jerry Yang. Ph.D. candidates in Stanford's Electrical Engineering Department, Filo and Yang started the first guide to the web in April, 1994, as a way to keep track of the addresses of interesting web sites being sent to them by friends. As the guide made the transition to a web site, it was given the name Yahoo!, short, some claimed, for "Yet Another Hierarchical Officious Oracle." The first homepage resided on Yang's student workstation, "akebono," while the underlying database was lodged on Filo's computer, "konishiki."[13] (The machines were named after legendary Hawaiian sumo wrestlers.)

During 1994, Filo and Yang converted Yahoo! into a customized database designed to serve the needs of thousands of users, and the service began to be used throughout the close-knit web community. Filo and Yang spent less and less time working on their Ph.D. studies and incorporated Yahoo! as a business on March 5, 1995. Soon after that, Yahoo! hired its sixth employee and new CEO Tim Koogle.[14] Koogle, then 44, served as Yahoo!'s "designated adult," trying to channel the energy of a bunch of Net enthusiasts toward creating a profitable business.

A number of principles guided the early development of the company. Koogle and his team saw Yahoo! not as a search engine, but as a modern media company, comparable to a television network or film studio. Accordingly, they shaped the organization with "producers" developing online "properties." By August, 1995, Yahoo!'s managers were measuring themselves against media companies, not just Internet firms. At the same time, they developed a team of engineers building backend databases, a distributed sales force attacking the important media markets, and a small group of corporate marketers establishing the Yahoo! brand name. Koogle commented on building the organization:

> This has been a real joy. One of the cool things is that we got to start with a clean slate…. In hiring, we follow the "No Bozos Rule." Don't hire bozos. Hire really smart people. Get clear on what you're going to execute. Then push decisions out, and get out of the way. But stay accessible…. If you're uncompromising in hiring, you get an organization that clones itself. We talk a lot about having a scalable organization.[15]

During 1996 and especially 1997, Yahoo! added content, commerce, communication, and community offerings aggressively, branching out to be more than a guide to the web. For users who registered with Yahoo!, the company provided My Yahoo!, a personalized service delivering tailored content to them from classifieds, chat rooms, and news wires. The company purchased Four11, a provider of directory services and free e-mail, and it entered into a partnership with Visa to bring consumers together with hundreds of on-line and off-line merchants in popular shopping categories.[16] Yahoo! also began to build country-specific and city-specific sites.[17]

Yahoo!'s site traffic grew from approximately 23 million page views per day in December, 1996, to over 167 million page views per day in December, 1998.[18] At the same time, Yahoo! increased its roll of registered users to more than 35 million, and the number of distinct individuals visiting its site rose to 50 million. Yahoo!'s advertising revenue also grew, with the number of companies buying ads rising from 550 during the fourth quarter of 1996 to 2,225 during the final quarter of 1998.[19]

Yahoo!'s Properties. Yahoo!'s primary services, called "properties," fell into several categories.

- *Navigation properties* helped consumers find relevant information more easily. The company made a distinction between so-called "search-and-browse" areas and properties that Yahoo! programmed itself. A line extended across Yahoo!'s main homepage, roughly one-third of the way down the page (**Exhibit 1**). Below the line were search-and-browse areas: essentially a set of categories (e.g., entertainment or science) that led in a hierarchical fashion to finer categories and, eventually, to others' web pages. Above the line were properties programmed by Yahoo!. Yahoo! News, for instance, used sources ranging from the Associated Press to the Hollywood Reporter and covered a wide variety of topics, from technology to human interest. Yahoo! Finance provided stock price quotes, graphs, analysts' ratings, company information, and other financial information.

- *Community properties* helped consumers connect and communicate. Yahoo! Address Book, for instance, enabled users to use a personal address book from any Internet-connected computer. Yahoo! Mail offered free e-mail accounts. Users could turn to Yahoo! Chat to join chat groups about a wide variety of topics and Yahoo! Message Boards to post and request information.

- *Personalization properties* could be customized by a consumer to satisfy his or her personal interests. A user might, for instance, pick his or her favorite topics from stocks to weather in order to create a customized site.

- *Electronic commerce properties,* including shopping, travel, and real estate properties, were organized and coordinated by Yahoo!, but partners actually carried out the sales. The shopping property, for instance, guided a user through a hierarchy to items sold by a host of online merchants. Travel bookings carried the Yahoo! brand, but were arranged through American Airlines' Sabre travel service.

- *International properties* in Australia/ New Zealand, Canada, Denmark, France, Germany, Hong Kong, Japan, Korea, Norway, Singapore, Spain, Sweden, Taiwan, and UK/ Ireland targeted local users and advertisers. Yahoo!'s team in each country catalogued tens of thousands of local web sites, created guides in the local language, and tailored content to local needs.

Yahoo!'s many properties shared a very similar "look and feel." A user familiar with one property would quickly feel comfortable with another. In addition, properties were linked to one another. When searching Yahoo!'s Yellow Pages for pizza in Boston, for instance, one would see links to online maps, restaurant reviews, regional directories, and shopping services. In developing new properties, Yahoo! preferred "quiet launches." Koogle explained, "We don't want to be too far out in front of our properties. We set it up, prove it, *then* tell people about it."[20]

Operations. Yahoo! ran its operations from two buildings in a rather nondescript office park typical of Silicon Valley. A visitor's first hint that this office park housed an unusual company, however, came in the parking lot, where employee's purple cars were emblazoned with the yellow slogan, "Do You Yahoo?" The color scheme continued inside. Employees sat at close quarters in purple cubicles which showed no sign of hierarchy. "The tight space helps us communicate," Koogle said. "Besides, we're cheap."

The layout of headquarters reflected the company's organizational chart, with each functional group sitting together. Operations were divided into three groups: property development, marketing and sales, and international (**Exhibit 11**). Property development, in turn, consisted of the production, engineering, and surfing functions. "Producers" were responsible for Yahoo!'s properties. The producer of Yahoo! Weather, for instance, designed Yahoo!'s weather services, wrote the basic HTML involved in the weather pages, and tracked competing weather-related sites on the web. Engineers performed the heavy-duty technical tasks, building data feeds and servers to deliver the content of the properties. Members of the surfing department constantly combed through new web sites and updated the directories in Yahoo! Search. Surfers not only classified new sites, but they also alerted producers when they spotted a relevant site.

Marketing and sales encompassed three functions: corporate marketing, sales, and business development. The corporate marketing staff was responsible for developing the Yahoo! brand name among the web-surfing public. Spot television advertisements accounted for most of the marketing budget, but Yahoo! also employed radio, print, consumer promotions, and, recently, national television. Ads were focused especially on "near surfers," consumers who were likely to surf the web for the first time soon. Many of Yahoo!'s corporate marketers came not from Internet-related backgrounds, but from traditional consumer packaged-goods companies such as Procter and Gamble.

Sales people sold the advertising inventory on Yahoo!'s 167 million page views per month. The company used both inside and outside sales people to take orders as small as $1,000.

A business development staff, a recent innovation, arranged Yahoo!'s numerous partnerships with other firms (see below). When a producer identified a need for a partner, the business development staff determined the most suitable partner and negotiated the deal. Yahoo! had a reputation for tough negotiation. The business development staff also fielded the hundreds of unsolicited partnership proposals that flooded into Yahoo! each month. "You try not to be distracted by all the proposals that come in," said Elizabeth Collet, senior manager of business development and planning. "And a lot come in."[21]

In negotiating partnerships, the business development team operated by a handful of principles. Ellen Siminoff, vice president of business development and planning, outlined the top precepts:

> Integration across the Yahoo! properties is key. Put the product first. Do a deal only if it enhances the customer experience. And enter no joint venture that limits Yahoo!'s evolvability.[22]

A substantial portion of Yahoo!'s employees belonged to the international group. International personnel were responsible for all aspects of business in the 18 countries in which Yahoo! operated, including production, engineering, surfing, sales, marketing, and business development.

Formal mechanisms linking the functions were rare. Grant Winfrey, a senior brand manager explained:

> There's a huge respect for expertise here. You don't see a lot of cross-functional teams. We just check in with each other, and we don't get into each other's business. Everyone here knows that you shouldn't be a maverick, going off into someone else's business without checking in.[23]

Siminoff noted that she and Tim Brady, vice president of production, tried never to be in same meeting. "After all, we look after each other's interests."[24] Further down in the organization, however, business development and production personnel jointly attended meetings with potential business partners. "The redundancy is necessary for decentralization," Collet explained. "If my counterpart on the production side and I agree that something is good for Yahoo!, the odds are good that we're right. There's a system of checks and balances in place."[25]

Partnerships. Yahoo! had so-called "distribution deals" with a number of computer makers. Under these arrangements, users of new computers going onto the web for the first time would automatically connect to a Yahoo! web site. Certain Compaq and Gateway computers, for instance, came equipped with a customized version of Microsoft's Internet Explorer which led users first to Yahoo!. Similar agreements were in place for Hewlett-Packard's Pavilion PCs and IBM's Aptiva PCs.

Yahoo! had struck similar deals with certain Internet service providers. AT&T Yahoo! Online, a partnership with the largest long distance carrier in the U.S., combined Yahoo!'s services with Internet access provided by AT&T WorldNet. With British Telecom (BT), Yahoo! launched Yahoo! Click, which combined Internet access from BT with the services of Yahoo! UK & Ireland.

Yahoo! also sought partners to develop information and services for its users. These relationships were especially prominent in the area of electronic commerce. ONSALE, Inc., a leading electronic retailer in interactive online auctions, offered Yahoo! Auctions, an online, person-to-person auction service. In the Yahoo! Finance section, E*TRADE, DATEK, DLJ Direct, Ameritrade, Quick & Reilly, and WebStreet provided links to online trading. Ticketmaster gave Yahoo! users information about entertainment events and the ability to purchase tickets online. A relationship with National Public Radio added audio content to Yahoo! News. Yahoo! Sports and Fox Sports Online teamed up to offer comprehensive coverage of the 1998 World Series through a site hosted on Yahoo!.

Yahoo! received much of its information content for free. In exchange, information providers received links back to their sites. Providers might also receive a share of the advertising revenue generated by the information. A share of 7.5% – 15% was typical.

Planning, control, and compensation. Yahoo! consisted primarily of enthusiastic Stanford graduates under the age of 30. Koogle, Mallett, Yang, and their senior team tried to direct the energy of the company without dampening it. The short-run controls that Koogle helped to develop reflected both his experience in manufacturing and his love of automobile racing:

> Early on, we put an infrastructure in place to measure how we generate a non-paying audience of customers and sell that inventory to paying customers. We have a weekly document called the Flash Report that functions like the dashboard on a race car. It measures all of our crucial metrics from user base growth to advertising bookings.... We distribute it pretty widely to the employees.[26]

While the Flash Report reflected weekly conditions, the basic strategy of the company had remained virtually unchanged since Yang, Filo, and Brady wrote Yahoo!'s first business plan in the spring of 1995. Yang discussed the strategy:

> Our long-run success depends on our ability to reach the user and the level of trust we develop with that user. Yahoo! has always been about building an online

environment where the technology is transparent to the user. Ultimately, it will be about the brand, the users, and being global.[27]

Between the Flash Report and the fundamental strategy was a one-year operating plan which detailed the financial goals and defined the top priorities, typically five or fewer in number. The revenue forecast was an aggressive goal while the expense plan was conservative. Individual functional areas had similar medium-term plans. Corporate marketing, for instance, plotted out its use of television six months in advance, but used radio spots to adjust its marketing efforts with as little as three weeks' notice. "You don't spend too much time on detailed marketing plans because they don't last very long," said Grant Winfrey, a senior brand manager. "The point is to stay ahead of the competition in 60-day windows."

Like most of its Silicon Valley counterparts, Yahoo! offered its employees stock options as well as a base salary. The company's soaring stock price had made many of its managers well-off. Yahoo!'s success made it popular among job seekers, but the lofty stock price had made it harder to attract new recruits.

Competition

Yahoo!'s competitors fell into categories that were widely recognized in the industry: companies combining Internet access and content; portals allied with traditional media companies; portals that, like Yahoo!, were independent; and specialized, "vertical" sites. See **Exhibits 12-14** for a comparison of services offered and audience reached.

Access and Content Providers

America Online / Netscape. America Online (AOL) was one of the few online contenders that predated the World Wide Web. Starting in 1985, AOL tried to provide information, communication, and electronic commerce services within a self-contained, proprietary community of subscribers. From its early days, AOL distinguished itself from online rivals by its user friendliness and its aggressive direct marketing to home computer users. With the advent of the World Wide Web, many analysts predicted the demise of AOL; the web offered much of what AOL did but with a much wider community and no subscription fee. AOL defied these predictions by marketing itself vigorously to the wave of new online users. Flat-rate pricing for unlimited access, a user-friendly interface, and wide distribution of free software brought AOL more subscribers than its infrastructure could initially handle.

In January, 1999, AOL offered both a subscription service and a web site, AOL.com, that was open to the public. With 14 million subscribers, AOL had by far the largest captive audience in cyberspace. Subscribers had access to services such as private chat rooms and free personal homepages that were not available to the general public. They also could use AOL to gain access to the wider World Wide Web. A subscription bundled the full range of online services, a browser, online access, and an electronic mailbox into one seamless package.

AOL.com was available to all Internet users, not just AOL members. AOL.com's range of content, features, and tools was comparable to those available from other portals.

In November, 1998, AOL announced its plan to acquire Netscape Communications for stock then valued at $4.2 billion. By developing the first widely commercialized Internet browser, Netscape had catalyzed the growth of the World Wide Web. Netscape's Communicator continued to hold 45%-50% of the browser market, and the company had extensive contacts in the corporate sector, where AOL was weak. A bruising battle with Microsoft's Internet Explorer, however, had pushed Netscape's stock price from the high 80's in 1995 to the mid-teens in early 1998.

AOL's acquisition of Netscape not only gave it control of a leading browser, but also added Netscape's Netcenter portal to AOL's arsenal. Netscape had entered the portal arena gradually. Its first search and directory page, launched in March of 1996, simply sent browser users to one of five established portals (Excite, Infoseek, Lycos, Magellan, or Yahoo!). After a brief portal partnership with Yahoo!, Netscape launched its own portal, Netcenter, in September, 1997. Netscape configured its browsers to go to Netcenter unless instructed otherwise by a user. By January, 1999, Netcenter had more than 9 million registered users. Daily traffic had increased by 50% over the previous six months, but "reach," or the portion of web users visiting the site each month—a closely followed statistics throughout the Internet community—had hit a plateau.

Steve Case, CEO of AOL, commented on the company's acquisition of Netscape:

> The acquisition of Netscape is a big step forward for America Online that will greatly accelerate our business momentum. Netscape has played a key role in helping consumers benefit from the enormous power of the Internet, and we share the same mission. With Netscape, we will broaden our global audience at home and at work, and add world-class technology to support an expanded range of America Online interactive products and services.[28]

Microsoft Network (MSN). Software giant Microsoft largely ignored the World Wide Web in the web's early days. By mid-1995, however, Microsoft recognized the importance of the web. In an internal memo dated May, 1995, CEO Bill Gates gave the Internet "the *highest* level of importance. The Internet is the most important single development to come along since the IBM PC was introduced in 1981…. The Internet is a tidal wave. It changes the rules."[29] Accordingly, Microsoft launched a number of web-related efforts. Its browser software, Internet Explorer, became a major rival to Netscape's product by late 1996. Microsoft's Advanced Technology and Research Group invested more than $400 million in web-based R&D in 1997.[30]

In addition to developing software related to the Internet, Microsoft launched or acquired a set of online services. The centerpiece, MSN, was originally intended to resemble AOL's subscription service: a proprietary community in which subscribers paid for a bundle of access, browser software, and online services. Software for MSN came bundled on new computers with the Windows95 operating system. At launch, MSN was the only online service bundled with Windows95. In March, 1996, however, Bill Gates reached a major deal with Steve Case of AOL. Microsoft agreed to include on the Windows95 desktop a folder containing AOL and other online services. In exchange, AOL agreed that Microsoft's Internet Explorer would be the default browser distributed to its subscribers.[31] The deal bolstered Internet Explorer in its battle against Netscape's Communicator, but weakened MSN relative to AOL. In October, 1996, MSN shifted from being a proprietary community to being a freely accessible, web-based portal like Yahoo!. Unlike Yahoo!, however, Microsoft operated as an ISP, selling Internet access to customers. By late 1998, Microsoft connected 2 million subscribers to the Internet.

Microsoft also invested heavily in developing web content and commerce. In December, 1997, it acquired the popular e-mail service Hotmail. Other ventures included Carpoint, a car-buying service; Expedia, a travel booking service; and Sidewalk.com, a guide to cities and to buying. MSNBC, a joint venture with broadcast network NBC, provided online news. In recent efforts, Microsoft appeared to be shifting away from online entertainment toward electronic commerce. Microsoft was also integrating its web properties more tightly.[32] Increasingly, MSN relied on content and commerce providers that were owned by Microsoft. MSN licensed its search technology from AltaVista, Lycos, Infoseek, and Snap on a rotating basis.[33]

In September, 1998, Gates commented that a few of Microsoft's content properties were beginning to break even.[34] Observers noted that Microsoft, with $14 billion in cash, could afford to sustain losses in its Internet businesses. Gates intended the company's web-related businesses eventually to become its fourth major business group, alongside PC operating systems like Windows, PC applications like Word and Excel, and server software.[35] The combined reach of the Microsoft homepage and MSN eclipsed Yahoo! in December, 1998.

@Home/Excite. On January 19, 1999, @Home announced its plan to acquire the portal Excite for $6.7 billion. @Home was an Internet service provider. Through 2002, it had exclusive rights to deliver high-speed Internet access over the networks of 19 cable-television providers. These cable networks had the potential to serve 60 million homes worldwide. With 330,000 subscribers in 1998, @Home generated revenue of $48 million. @Home's major investor, the cable company TCI, was itself being acquired by AT&T.

Prior to the acquisition, Excite developed two flagship brands on the web. The main brand, Excite itself, was a full-service portal aiming to provide the "20% of the content and tools that 80% of the people want."[36] Excite was known for the ease with which users could personalize its services to meet their needs. Early Excite ads asked listeners whether they were "still with that same old Yahoo." Excite's second brand, Webcrawler, acquired from AOL in 1996, offered a no-frills approach to searching with a focus on speed and simplicity.[37] In 1998, the company as a whole lost $28 million on revenue of $154 million.

Plans for the merged company were far from clear. Industry observers speculated that Excite would be an important advertising channel for @Home, encouraging web users to migrate to broadband access. Excite might also lead the way in developing web content that made full use of broadband technology. Tom Jermoluk, CEO of @Home, commented that "probably the hidden gem of the whole deal is how we'll be able to implement their targeting and database technology to deliver advertising to the individual user."[38]

Before @Home made its winning offer for Excite, a number of companies, including Yahoo! and Microsoft, were rumored to be interested in bidding for the company.[39]

Portals with Traditional Media Partners

Disney / Infoseek. In June, 1998, Infoseek became the first leading portal to ally with a major media partner, Disney. Under the agreement, Infoseek received $70 million in cash and Disney's ownership position in Starwave, a producer of Internet-based sports, news, and entertainment services (e.g., ESPN SportsZone and ABCNEWS.com). In return, Disney acquired 43% of Infoseek, a minority position on the Infoseek board, and options to increase its ownership in the future.[40]

Following the merger, Infoseek went on a six-month hiatus to develop the GO Network, a new portal combining all Infoseek and Disney properties. Michael Eisner, CEO of Disney, was personally involved in much of the GO initiative right down to selecting its traffic light logo. Launched on January 1, 1999, GO looked similar to other portals, but clicking on a link to "news" or "sports" or "kids" led directly to Disney-generated content. Every other Disney web site linked back to GO, to form what Disney hoped would become a largely self-contained set of services.[41] Prior to the launch of GO in December, 1998, Infoseek was the 9th most trafficked site on the web with a reach of 22.1% while the Disney Online properties were the 8th most popular site with a reach of 23.9%.[42] As a stand-alone company, Infoseek lost $9 million in 1998 on revenue of $63 million.[43]

NBC / Snap. NBC, one of the major television networks in the U.S., announced in June, 1998, that it would purchase a 5% equity stake in CNET, a company devoted primarily to providing technology news and information over the web. Together, NBC and CNET would operate Snap, CNET's full-service portal site. NBC also acquired an unspecified minority stake in Snap, reported by *Fortune* to be 19% with options to increase its holdings to 60% in the future.[44] Snap continued to be promoted as a separate brand without the NBC label.

On January 19, 1999, Snap announced its Cyclone project, a new portal designed specifically for users with broadband access to the Internet. Cyclone would, for instance, allow broadband users to watch certain NBC television broadcasts on their computers. Halsey Minor, CEO of CNET, explained, "Internet portal users who have access to higher-speed Internet connections are looking for a rich, full experience, not just text-based lists of web sites. With our groundbreaking Snap 'Cyclone' service, we will become the first Internet portal company to offer these users the ability to move beyond text to a world of video, audio, animation and more."[45]

NBC's overall web strategy targeted a broader audience than that of the fledgling Snap site. MSNBC, its joint venture with Microsoft, attempted to draw people interested in general news. CNBC attracted people interested in finance and business while NBC.com drew consumers interested in entertainment. NBC Interactive gave affiliate stations a set of local web gateways with regional classifieds, headlines, and weather reports.[46]

Independent Portals

Lycos Network. Lycos billed itself not as a unified portal but as a network of separate services. The flagship member of the network, also named Lycos, was a full-service portal comparable to other portals. A new design for the site, unveiled in October, 1998, had a less complicated interface than did earlier versions. It pointed users toward electronic commerce services and made elaborate searches easier. Indeed, the company had long touted itself as providing the best search technology on the web. Lycos commercials featured a Sherpa and later a guide dog.

Other members of the Lycos Network included HotBot, a particularly sophisticated search engine; Tripod.com, which provided tools for building web pages and promoted online communities known as "pods"; Whowhere, a directory service; and Wired.com, a leading source of technology news. Lycos linked the elements of its network only in a limited way and tended to promote and develop the elements separately. For instance, an extensive advertising campaign for HotBot did not mention Lycos.

Partly because it acquired sites with widely different audiences, the Lycos Network more than doubled its reach during 1998, taking it close to Yahoo!'s reach (**Exhibit 14**). Lycos lost $8 million on revenue of $89 million in 1998.

AltaVista. AltaVista originated in Digital Equipment Corporation's research lab as a highly technical search engine. Initially marketed as an engine that could be embedded into other services, AltaVista gradually became a portal in its own right. Following its 1998 acquisition of Digital, computer maker Compaq announced plans to spin-off AltaVista in January, 1999. "By establishing AltaVista as a separate company, it can better focus on providing the best user experience on the Internet, from search, to commerce, to communication and community," said Eckhard Pfeiffer, Compaq president and CEO. "We see this as a significant opportunity for Compaq to expand its share of the rapidly growing Internet market for content and services and also enables us to unlock the tremendous value of AltaVista for our shareholders."[47] Compaq hoped that AltaVista would become the leading destination site for information and e-commerce on the World Wide Web.

The AltaVista site traditionally lacked many of the features offered by major portals. In recent months, the company had announced a series of partnerships including an agreement with Microsoft's MSN. Under that agreement, AltaVista offered users free e-mail with an AltaVista-branded version of Microsoft's Hotmail service. AltaVista gained rights to Microsoft's instant messaging technology in the future, and the companies agreed to work together on a range of other web-based communications and community-building services.

Vertical Sites

A growing number of "vertical" sites featured in-depth information and electronic commerce tailored to special interests. CNET and ZDNet covered technology news, for instance, while Motley Fool gave advice to stock market investors, ESPN SportsZone provided sports news, iVillage featured women's topics, and Quicken.com focused on personal finance. Such sites offered depth in individual interest areas that portals such as Yahoo! did not match. Some vertical sites were becoming familiar enough to users that users went directly to them, without using a portal. The most popular vertical sites relied less and less on referrals from portals, and increasingly, they could strike favorable deals with portals.

Taking the Next Step

With the flurry of recent mergers and partnerships, competitors had placed very large—and very different—bets on the future. Now the Yahoo! team had to decide whether and how to adjust their own wager. Tim Brady, who helped write Yahoo!'s original business plan, emphasized that the company balanced adjustment and continuity:

> It's tough to ferret out strategy from tactics because the industry moves so fast. If you make the wrong tactical move, you can't follow the strategy. But the strategy has been the same since day one. Yahoo! is a social engineering project. We bring people together. We never wanted to create a cool technology.[48]

Rumors circulated that a number of suitors were interested in a partnership, perhaps even a merger, with Yahoo!. Some large, traditional media companies such as Time-Warner and News Corporation had not yet established significant operations on the web. Several financial institutions seemed eager to play a larger role in online commerce and investing. Telecommunication companies such as MCI / Worldcom and AT&T, who were already major providers of Internet access, appeared interested in providing web content. Content requiring broadband access might be especially appealing to such companies.

Closer to the web, the Lycos Network was widely rumored to be for sale. Industry observers speculated that portals might build stronger ties with leaders in electronic commerce, such as Amazon.com. Moreover, Yahoo! was already in acquisition discussions with the management of GeoCities, in which it held a minority stake. GeoCities provided software tools and server space that allowed individuals to build their own web pages, which were then organized in communities of interests, or neighborhoods, on the GeoCities' site. Neighborhoods ranged from Nashville, for those interested in country music, to Area 51, for science fiction aficionados. In terms of reach, GeoCities trailed only AOL, Microsoft, Yahoo!, and the Lycos Network.

Despite the many changes and opportunities in their business, Yahoo!'s senior managers remained focused on a handful of priorities. Koogle remarked:

> As a company, we're heavily externally focused. We maintain a level of paranoia about the environment that is pretty healthy, and we seldom actually get surprised. If anything tectonic is going on, Jerry, Jeff, or I get word of it before it occurs. When that happens, we come back to fairly basic fundamentals. Are we still doing the right things?[49]

Exhibit 1: Evolution of Yahoo!'s Homepage

1st Homepage

1995

1997

1999

Exhibit 2 Yahoo! Financial Results and Projections (millions of US dollars)

	1996	1997	1998	1999E	2000E	2001E	2002E	2003E
Total revenue	21.5	70.5	203.3	361.6	511.3	719.8	1,007.7	1,410.7
Cost of revenue	4.7	10.9	26.7	42.8	56.5	77.4	100.8	141.1
Gross margin	16.8	59.6	176.5	318.8	454.8	642.4	906.9	1,269.7
Operating expenses								
Sales and marketing	16.2	45.8	92.4	148.8	201.7	284.0	392.2	536.1
Product development	5.7	12.1	22.7	37.6	49.1	68.4	94.4	127.0
General and administrative	5.8	7.4	11.2	16.3	23.0	32.4	45.3	62.0
Non-recurring and other	-	25.1	21.4	4.1	4.1	4.1	4.1	4.1
Total	27.7	90.3	147.8	207.0	278.0	388.9	536.0	729.2
Operating income (loss)	(10.9)	(30.8)	28.8	111.8	176.8	253.5	370.9	540.5
Net income (loss) before non-recurring	(6.4)	(0.4)	49.9	93.0	127.8	169.4	239.0	340.3
Current assets	99.7	108.5	467.2					
Total assets	113.0	143.5	621.9					
Current liabilities	8.3	24.4	80.0					
Long-term liabilities	0.5	0.7	5.7					
Total stockholders' equity	104.2	118.4	536.2					
Net cash provided by (used in) operations	(2.4)	0.5	110.3					
Net cash provided by (used in) investments	(76.2)	19.6	(329.9)					
Net cash provided by (used in) financing	107.2	9.6	281.3					
Net change in cash	28.5	29.3	61.9					

Source: Actual figures from company data. Projections from Warburg Dillon Read, January 25, 1999

Exhibit 3 Yahoo! Operating Statistics

	1996	1Q97	2Q97	3Q97	4Q97	1Q98	2Q98	3Q98	4Q98
Millions of pages viewed per day at end of quarter	21	30	38	53	65	95	115	144	167
Millions of registered users	-	-	-	-	-	12	18	25	35
Revenue / daily page delivered	$0.94	$0.37	$0.41	$0.38	$0.43	$0.32	$0.36	$0.38	$0.46
Portion of advertising "inventory" sold		18%	20%	17%	16%	16%	17%		20%
Average CPM	$21	$20	$23	$24	$24	$25	$25		$20
Number of advertisers	550	700	900	1,200	1,700	1,600	1,800	1,950	2,225
Revenue / advertiser	$35,813	$14,379	$15,674	$15,112	$17,768	$17,998	$23,160	$27,989	$34,312

Source: Company data, case writer calculations

Exhibit 4 Technology Penetration

	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99E	00E
Millions of PCs shipped	9	9	10	12	14	16	19	24	31	41	50	60	71	84	98	114	130
Millions of PCs in use[a]	23	28	35	40	45	52	61	73	90	115	146	182	222	265	313	367	426
Portion of PC users with second PC[b]	2%	2%	3%	5%	6%	7%	8%	10%	15%	20%	22%	23%	25%	28%	30%	33%	37%
Millions of e-mail users[c]	1	1	2	3	4	5	6	8	12	18	25	35	60	80	130	180	200
Millions of Internet / web users	<1	<1	<1	<1	<1	<1	<1	<1	1	1	3	9	28	46	82	134	157
Millions of households online	-	-	-	-	-	-	-	-	-	-	-	6	17	25	35	48	61
Millions of Internet host computers	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.4	0.7	1.3	2.2	5.8	14.4	21.8	29.7	43.0	---

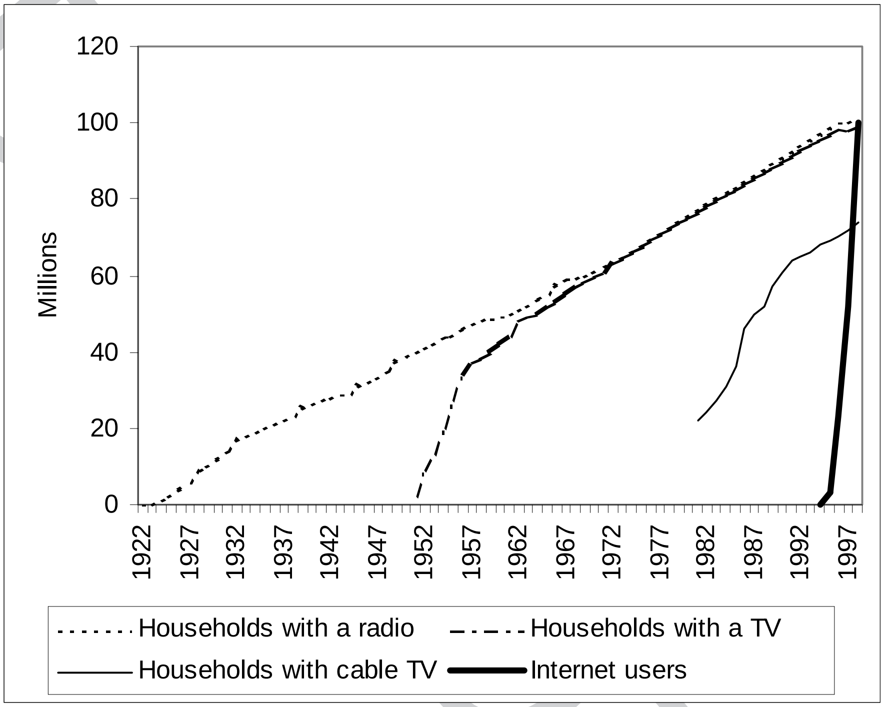
[a] Assumes that PCs have an average useful life of four years

[b] Estimated number of PC users that use second PCs: home, office, and portables

[c] Estimate of all e-mail accounts

Sources: Morgan Stanley Dean Witter Research Estimates, Network Wizards (www.nw.com)

Exhibit 5 Adoption Curves for Media Technology in the United States



Source: Morgan Stanley Dean Witter Technology Research

Exhibit 6 Portals and the World Wide Web

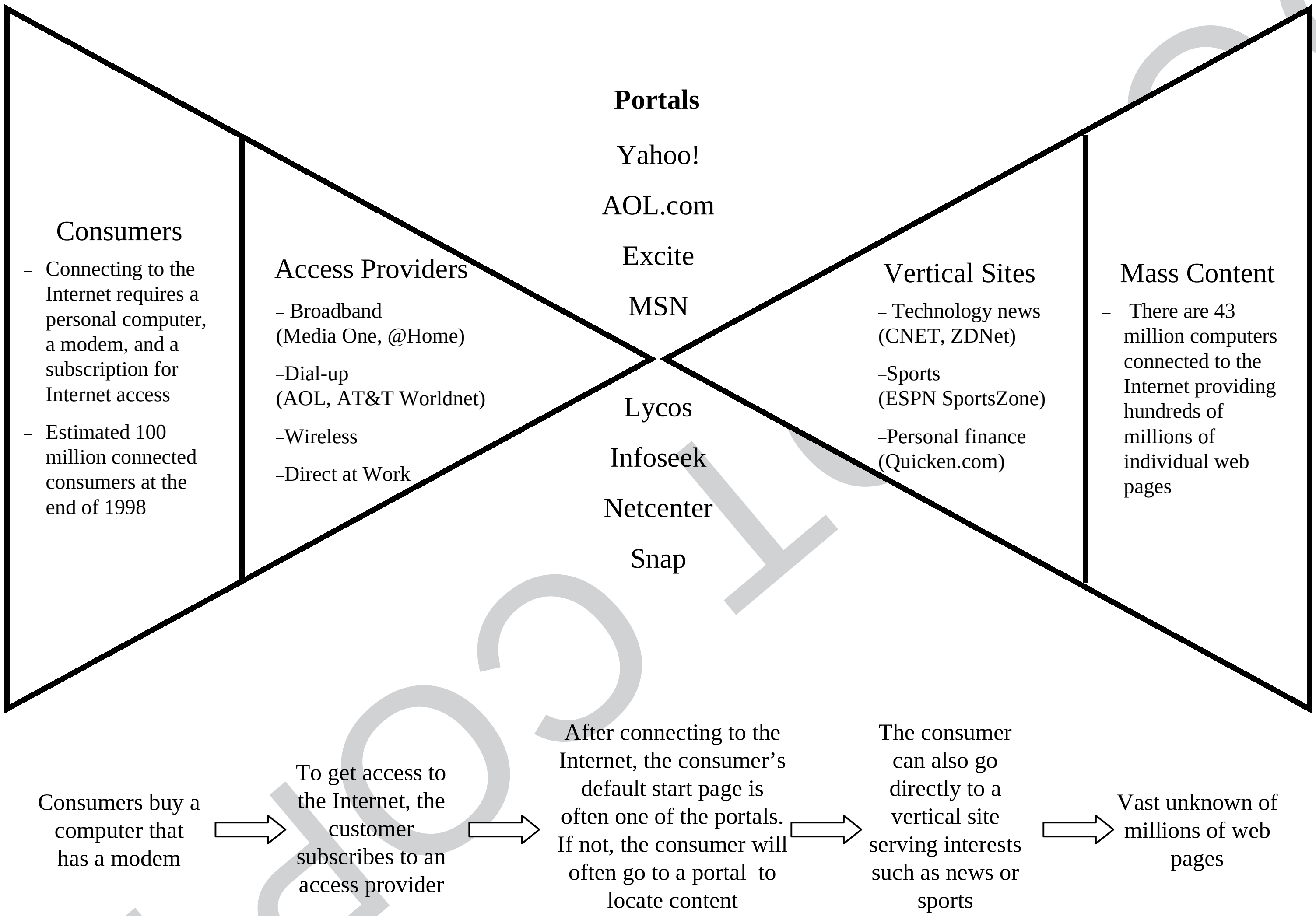


Exhibit 7 Adoption of Online Gaming

Portal	Date	On-Line Offering
Yahoo!	31-Mar-98	New site offers free, real-time, multi-player access to classic games within comprehensive card and board game environment. Board games: backgammon, checkers, chess, go, reversi. Card Games: bridge, cribbage, euchre, gin, hearts, poker, and spades.
Lycos	12-May-98	Head-to-head Lycos online gaming action. Lycos Games features comprehensive classic card and board games from checkers and chess to hearts and spades. The technology for Lycos Games is provided by veteran gaming and technology company, go2net, Inc.
Excite	27-May-98	Excite and Total Entertainment Network invite web users to cut the deck with classic card games. The new Excite game area lets Internet users play classic card games including euchre, hearts and spades at no cost and with virtually no download or installation delays.
Infoseek	27-May-98	Infoseek and Total Entertainment Network partner to bring interactive gaming to Infoseek users. Infoseek users initially will have unlimited access to seven classic board and card games free of charge and without downloads straight from TEN's premier gaming site.

Source: Company press releases

Exhibit 8 Portal Comparisons, 1998

	Yahoo!	AOL*	Lycos	Infoseek	Excite
Financial statistics ($ mm)					
Revenue	203.3	2,599.5*	89.5	63.2	154.1
Gross margin	176.5	921.2	69.8	53.5	125.1
Operating income	28.8	222.1	(13.4)	(11.6)	(4.7)
Earnings (without charges)	49.9	91.8	(8.4)	(9.4)	(27.8)
End-of-year cash	433.5	631.0	135.2	54.5	61.6
Market capitalization ($ bn)	30.3	75.0	3.8	2.3	5.5
Operating statistics					
Millions of pages viewed per day	167	N/A	50	33	70
Number of advertisers	2,225	N/A	850	673	1,500
Average CPM	$20	N/A	$23	$20	$23
Millions of registered users	35	14**	15	8	20
Portion of advertising “inventory” sold	20%	N/A	32%	26%	22%
Employees	900	8,500	600	750	800
Brand-name recognition					
Among Internet users	44%	60%	7%	8%	11%
Among non-users	2%	17%	-%	-%	-%

* AOL revenue consists of $2,161 mm for online service and $439 mm from advertising, commerce, and other sources. Excludes Netscape and Netcenter

** Number of paying subscribers

Source: Company data, research reports, Intelliquest First-Quarter Worldwide Internet Tracking Services Study

Exhibit 9 Typical CPM Rates for Traditional Media

	1995	1996	1997	1998
Network television, nighttime	$8.79	$10.20	$11.18	$12.59
Spot television, nighttime	$13.36	$17.22	$17.30	$18.08
Magazine, black & white page	$27.05	$30.28	$34.23	
Daily newspaper	$46.67	$53.60	$52.77	
Sunday newspaper	$40.49	$43.56	$46.51	

Source: Television Bureau of Advertising, http://www.tvb.org/tvfacts/index.html

Exhibit 10 Online Advertising and Commerce Projections

	1995	1996	1997	1998E	1999E	2000E	2001E	2002E
Total expenditures on all media advertising ($ bn)	117	127	137	149	161	178	190	206
Expenditures on online advertising ($ mm)	55	301	850	2,060	3,350	6,685	9,755	14,865
Expenditures on electronic commerce by consumers ($ mm)	49	706	3,007	8,010	13,620	22,135	34,750	52,125
Portal share of all Internet traffic		15%	15%	15%	16%	17%	18%	20%
Portal share of all online advertising expenditures		61%	59%	52%	48%	40%	35%	30%
Total portal advertising revenues		184	502	1,071	1,608	2,674	3,414	4,460

Source: Forrester Research, Jupiter Communications, CIBC Oppenheimer & Co., case writer estimates

Exhibit 11: Yahoo! Organization Chart

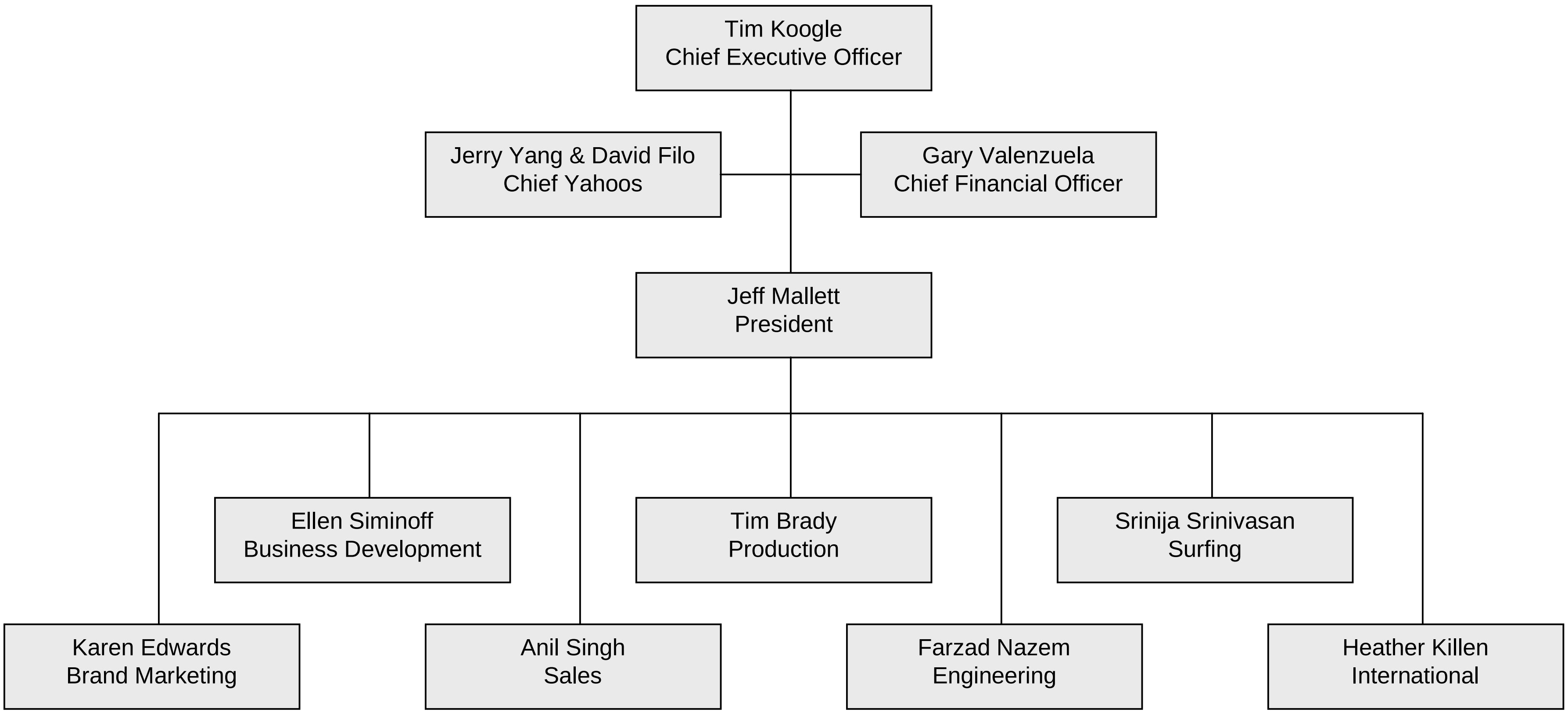
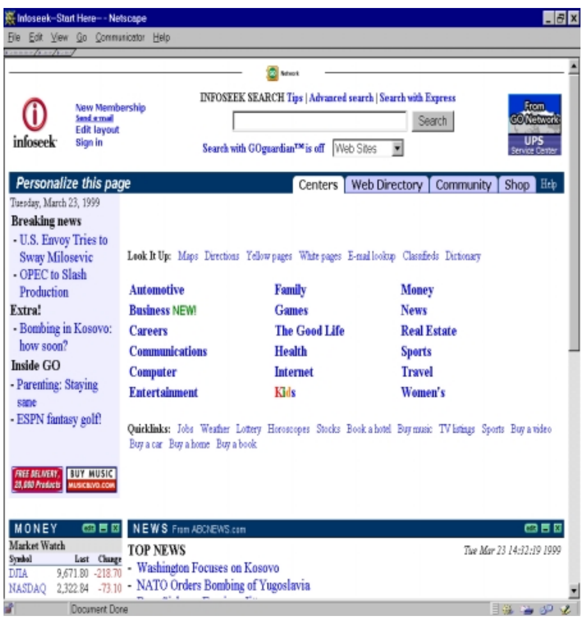


Exhibit 12: Homepages of Other Portals

Excite[1]

Lycos[2]

Infoseek[3]



Netcenter[4]

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Exhibit 13 Portal Feature Comparison, 4Q1998

	Excite	Lycos	Infoseek	Yahoo!
International Sites	Australia, France, Germany, Japan, the Netherlands, Sweden, UK	Germany, Italy, Japan, UK, Spain, the Netherlands	Brazil, Denmark, Holland, France, Germany, Italy, Sweden, UK, Spanish version	Australia/ New Zealand, Canada, Denmark, France, Germany, Japan, Korea, Norway, Singapore, Spain, Sweden, UK/ Ireland
Recent Acquisitions	8/96: The McKinley Group, creator of Magellan Online Guide	2/98: Tripod, a provider of personal web pages	6/98: Disney took a 43% stake in Infoseek. Infoseek received $70M cash and ownership position in Starwave, a producer of Internet-based sports and news	10/97: Four11, a privately-held online communications and Internet directory
	2/97: NetBot, advanced search technology	5/98: WiseWire, directory-building & enhanced searching	8/98: Quando, creates and licenses constantly-updated, customized directories and guides	12/97: Less than 20 percent equity position in AudioNet, a provider of Internet broadcasting services
	3/97: WebCrawler, search and directory technology	6/98: Guestworld, an online guest book provider		12/97: Less than 20 percent equity position in GeoCities, a provider of free personal web pages
	2/98: MatchLogic, management and optimization of Internet advertising campaigns	8/98: Whowhere, offered free homepages, e-mail, and directory services		6/98: Viaweb, an Internet commerce firm that rents its server-based software and web storefronts to merchants
	6/98: Classifieds 2000, provider of online classifieds	10/98: Wired Digital, provided several web services (HotBot, HotWired, and Wired News)		10/98: Yoyodyne, an Internet-based interactive direct marketer
Partners & Sponsors	Amazon.com, BarnesandNoble.com, Preview Travel, N2K, CDnow, Netscape, AOL, Prodigy Services, Pointcast, Dell, Apple Computer, Sega Enterprises, WebTV, Intuit	Juno Online Services, Fragrances Online; Test Drive, AT&T Worldnet Service, CDnow, Preview Travel, AutoConnect, E-Loan, Homesshark, BarnesandNoble.com	Bell Atlantic Electronic Commerce Services, Southwestern Bell, Sprint, CNET, Auto-by-Tel, CarPoint, CMP Media, Borders Online, Microsoft Investor, DLJ Direct, Datek, Ameritrade	Amazon.com, CDnow, Reel.com, Videoserve, Autoweb, Microsoft, CarPoint, E-Loan, DLJ Direct, E*Trade, Ameritrade, Datek, AT&T Worldnet, HP, Gateway, Compaq

(continued)

Exhibit 13 Portal Feature Comparison, 4Q1998 (continued)

	Excite	Lycos	Infoseek	Yahoo!
Content Providers	Reuters New Media, UPI, Charles Schwab, ESPN Sportsticker, The National Enquirer, The Tribune Company, GTE New Media	Reuters New Media, Wired News, Suck.com, Careerpath.com, iVillage	Reuters New Media, Business Wire, Hoover's, Inc, PR Newswire, USENET News Groups	Reuters New Media, Zacks, CDA/ Wiesenberger, Motley Fool, ESPN Sportsticker, The Sporting News, Weathernews, E! Online, MTV
Channels	Autos, Careers, City Guides, Classifieds & Auctions, Computers & Internet, Education, Entertainment, Games, Health, Home & Real Estate, Lifestyle, Money & Investing, News, People & Chat, Relationships, Shopping, Sports, Travel	Autos, Business, Careers, Computers, Education, Entertainment, Games, Health, Home/Family, Kids, Money, News, People/Society, Politics, Real Estate, Shopping, Sports, Travel, Women	Automotive, Family, News, Business, The Good Life, Real Estate, Careers, Health, Shopping, Communications, Internet, Sports, Computer, Kids, Travel, Entertainment, Money, Women's	Arts & Humanities, Business & Economy, Computers & Internet, Education, Entertainment, Government, Health, News & Media, Recreation & Sports, Reference, Regional, Science, Social Science, Society & Culture
Web Sites Under Network	City.net, classifieds2000.com, hoopmadness.com, jango.com, webcrawler.com	Tripod.com, Mailcity.com, Whowhere.com, HotBot.com, Angelfire.com, Wirednews.com, Hotwired.com, Suck.com, Webmonkey.com	ABC.com, ABCNEWS.com, Disney.com, ESPN.com, Family.com, Showbiz.com	Yahoo.com
Other Features	**Instant messaging, chat, free e-mail, personal homepage publishing, personalized start page, community web site development, calendar, games, shopping**	**SafetyNet, personal homepage publishing, personalized start page, games, free e-mail, shopping**	**Chat, free e-mail, personal homepage publishing, personalized start page, community web site development, calendar, games, shopping**	**Shopping, yellow pages, people search, maps, classifieds, personals, games, chat, free e-mail calendar, instant messaging, personalize start page, personal homepage publishing**

Source: Company Press Releases and Web Sites; K.A. Porter and S.P. Bradley, “Excite, Inc. (1998),” HBS Case N9-799-044

Exhibit 14 Portal Reach and Duration of Visit
("Reach" is the percentage of individuals that visit a specific site in a given month out of the total number of individuals using the web)

Reach of Top 10 Consolidated Networks from Home (%)

	Nov-97	Jan-98	Mar-98	May-98	Jul-98	Sep-98	Nov-98
AOL Sites	47.4	47.7	48.3	45.4	46.0	47.3	49.2
Yahoo! Sites	42.6	41.8	44.4	44.4	41.8	40.7	43.7
Microsoft Sites	30.3	33.1	35.4	36.9	36.7	38.4	43.1
Lycos	15.9	14.1	24.9	23.8	24.5	31.0	39.1
Geocities.com	22.8	23.9	23.9	26.9	25.9	24.2	27.9
Netscape.com	27.6	27.5	27.7	25.6	25.4	24.6	25.0
Excite Network	24.1	23.8	26.2	28.5	27.6	24.7	24.8
Walt Disney Online	15.0	14.0	14.6	14.1	17.7	20.1	21.0
Infoseek Sites	17.0	19.2	18.3	18.5	17.2	14.3	15.8
Time Warner Online	13.8	13.4	13.8	14.0	14.0	15.2	14.5

Reach of Top 10 Consolidated Networks from Work (%)

	Nov-97	Jan-98	Mar-98	May-98	Jul-98	Sep-98	Nov-98
Yahoo! Sites	46.6	52.7	54.8	54.1	50.5	49.8	49.6
Microsoft Sites	37.7	38.5	43.0	42.6	43.2	49.2	48.7
Lycos	16.8	21.6	26.1	30.3	28.2	33.9	39.3
AOL Sites	35.0	35.4	39.4	39.3	34.1	36.9	36.3
Netscape.com	41.8	44.7	41.1	37.4	40.0	42.5	36.0
Excite Network	27.4	32.4	31.3	34.8	34.3	31.9	27.5
Geocities.com	16.7	19.7	21.2	22.8	22.1	22.7	24.2
Walt Disney Online	12.2	13.9	15.0	15.0	20.0	22.9	23.8
Infoseek Sites	21.8	26.8	25.7	27.0	23.6	21.2	20.4
Time Warner Online	16.8	17.6	19.4	20.7	17.0	24.1	19.5

Estimated Total Minutes of Use per Month per User for the Top 10 Consolidated Networks

	Nov-97	Jan-98	Mar-98	May-98	Jul-98	Sep-98	Nov-98
eBay	0	71	69	117	105	120	132
Hotmail.com	17	16	17	15	18	57	76
Microsoft Sites	21	35	34	33	36	39	59
Yahoo! Sites	32	37	39	36	46	45	57
ESPN Internet Group	12	12	13	18	20	36	37
New York Times	17	20	23	17	18	34	30
Onsale.com	0	11	11	30	18	26	28
Excite Network	16	16	22	25	29	26	28
Walt Disney Online	38	29	34	33	27	27	26
Egghead.com	22	22	21	19	24	25	20

Source: Media Metrix

Notes

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