

CHAPTER III  
COMMERCIAL INTERNET STRATEGIES  
MAKE INROADS IN SCHOOLS

*I remember watching my grandfather look overhead in awe at an airplane flying by. That's the way I feel about the Internet. I'm kind of in awe over the whole thing. It's just amazing.*

—High school educator, 1995

*This is the first time in the history of the human race that a generation of kids has overtaken their parents in the use of new technology. Consider...what it means to us as marketers.*

—Peter Elo, President of Lego Systems, 1999

Wiring schools to the “Information Superhighway” was the motivating narrative for using billions in public monies for the construction of the internet as a commercial highway in the U.S. But school-age students weren’t only the cover story for the internet—they were commercial targets as well. According to the optimistic reports of industry analysts, schools would deliver legions of young consumers to for-profit sites.

The youth market had become increasingly valuable and lucrative throughout the 1990s. The oft-quoted child market analyst James McNeal (1992) noted that “Today’s kid is an increasingly self-reliant youngster, pretty savvy as a consumer, with money of his or her own to spend, materialistic, willing to sub for the parents as a shopper, soon to be master of the marketplace.” He added that young people were, “In boxing terms, a lightweight with an economic power punch whom we might nickname Kid Kustomer” (p. 3). Indeed, teenage spending exploded throughout the 1990s, while advertising and marketing efforts to reach this demographic reached new heights: \$100 million in 1990, and \$2 billion in 2000 (Alexander & Dichter, 2000). Marketing predictions also signaled that this materialistic population of 12-to-19-year-old “Kid Kustomers” in the U.S. would expand, from 29.1 million in 2000 to 34.9 million in 2010 (Zollo, 1995).

Not surprisingly, many corporations simply assumed that the spend-happy “Kid-Customers” would want to spend their money online. A study by the media research firm Jupiter Communications indicated just how lucrative this group would be, if targeted via the internet: Online shopping by teenagers 13-18 reportedly totaled \$300 million by the end of 2000, and seemed to be accelerating twice as fast as the rate of adults who shopped online. The study predicted that by 2003, teenagers would be spending \$2 billion annually on internet-based merchandise (Siegal, 2000). A subsequent study by the same firm predicted that kids and teens would spend more than double the amount—\$4.9 billion—via the internet by 2005, and \$21.4 billion in bricks-and-mortar stores based on information they found on the internet (Jupiter, 2000).

A bounty of new market analysis studies also discovered that children helped their parents shop online, took charge of pointing and clicking 48 percent of the time, and suggested web sites to buy from 42 percent of the time (NFO, 2001). Other online developments, such as internet shopping cards, facilitated teen purchasing power. DoughNet, iCanBuy, Cobaltcard, PocketCard, and E-wallet emerged, for example, to help young people shop, bank, and even

donate to charities online through special pre-paid accounts, or by drawing directly from a teen's bank account (Pugh, 2000).

It also seemed that the youngest generation of online users was not bothered by advertising. In fact, they came to expect it on web sites and were comfortable sharing personal information in order to win prizes or access a particular game (e.g., Clausing, 1999). One study released in 2000 reported that if a prize was involved, two thirds of children ages 10-17 would provide commercial web site operators with the names of their favorite stores, and more than half would give their parents' favorites (Associated, 2000). Along with their responsiveness to online promotions, young users were also developing "multi-tasking" skills, allowing them to digest corporate advertising as they worked on some other internet-based (or other) activity (Walters, 1999). As a communications medium, the internet had possibly more marketing potential than any mass medium before it.

Moreover, it seemed like a goldmine to market to children during the school day. Schools were wired and there was no effective restrictions on internet advertising and marketing practices geared towards children. Congress had indeed passed the Children's Online Privacy Protection Act (COPPA) in 1998 to better protect children's online privacy, but it didn't amount to much. The Act, which would become effective in April 2000, concerned only those web sites trying to collect online information from children 13 and under. Besides mandating that these commercial web sites post prominent notices detailing the kind of information gathered, how it would be used, and whether it would be shared, the COPPA also required that the sites obtain verifiable consent from parents, and enable parents to delete all information collected if they wanted to. Three months after COPPA went into effect, however, the FTC found that few companies were complying with the regulations. "Of the sites that did collect kids' personally identifiable information," the FTC reported, "roughly half appeared to have substantial compliance problems" (Web Sites, 2000). What's more, only 16 percent of children under age 13—the age group affected by COPPA—were inclined to give out personal information on the web. The more significant group of information sharers—39 percent of children ages 13 to 17 (and a far more valuable consumer market)—would never be affected by COPPA. Furthermore, the public's attitude toward commercialized content in classrooms, as noted in Chapter One, had softened incredibly by the 1990s. Plenty of teachers today see internet advertising as hardly disruptive or invasive. Online ads are not a problem since advertising messages are "everywhere" already.

A Canadian marketing publication called *Strategy* captured the industry's excitement at potentially reaching a young audience during the daytime hours. Canada had actually beaten the U.S. in school connectivity and was in fact "leading the world in wired schools." *Strategy* described the implications this would have for commerce:

Within the school system, young Canadians are being encouraged to use the Internet for research and information gathering. And they seem to be listening. Among teens, the most common reason for using the Net—aside from socializing via instant messaging and email—is to do homework....The implication for all this for marketers is pretty clear: Canadians are integrating the Internet into their lives at an early age. And where they are, so should marketers be. (Thoburn, 2000, p. 23)

Carole Walters, who works as a media director in the advertising industry and serves on the American Association of Advertising Agencies Interactive Marketing and New Media Committee, noted in 1999 that providing educational content in schools while promoting other services created a favorable situation for both schools and corporations. Writing to her fellow

advertising colleagues, Walters raved about the internet's exciting educational possibilities (e.g., virtually visiting different places, designing itineraries, getting to know Shakespeare and corresponding with peers). Then she added, "By dedicating some of our effort to this, we will help ourselves in the long run. We will have aided in the development of a population of future employees whose creativity has been nurtured, not squelched. Consider an environment where individuals can think through, and understand, everything from transactional spreadsheets to an advertising concept!" (p. 283). Not surprisingly, corporations leapt at the opportunity to market to America's youth via the internet. "When added to the psychological and sociological studies that advertisers are investing in to find out what motivates kids on-line," Zoll (2000) wrote, "we can safely say that on-line commercial marketing to children has become a formidable force" (p. 1).

### Sticky Portals and Banner Ads

Beginning in 1995, the business sector was increasingly abuzz with marketing reports describing the internet's revolutionary advertising potential, especially with internet portals. A portal, unlike a web page, is an entry point to a collection of many decentralized online resources. The internet's commercial future, according to industry analysts, was in the "stickiness" of content portals and in the precision of banner ads, which began appearing at the top of web pages in 1996. If users stayed "stuck" on a certain page long enough, then they would have a chance to read, digest, and respond to the commercial messages, which would be precisely targeted to their interests. Commercial web sites aimed for stickiness. A site selling clothing and jewelry to teenagers, like delias.com, for example, tried to create a cultural context that included chat rooms, original magazine-style content, and other relevant information alongside their purchase selections in order to attract young consumers to their netspace. "On Web sites selling to teenagers, the merchandise often seems like an afterthought" Siegal (2000) wrote. "First you have to set the mood with music, offer gossipy tidbits about rock stars and actors (just how long will Leo's [DeCaprio, the actor] affair with a model last?) and provide advice, chat room and concert information. Then you can sell clothing" (p. 1). Money and energy went into portal development. Key portals like Yahoo! and AOL enhanced their offerings so that users never really had to leave the portal page; they encouraged users to personalize their web spaces (e.g., MyYahoo!, MyAOL), to increase their reliance on the commercial portal (and its advertising); they practiced "framing," linking to other pages without ever revealing the original URL of the linked page; and "mousetrapping"—disabling the Back button on a user's browser so users are unwillingly locked, or "mousetrapped" into the site. The strategy, long used by the pornography and gambling industries, became a typical tactic for mainstream sites.

So as to better target the advertising (ad relevance added to a portal's stickiness), companies also began compiling and sharing personal information about internet users. The advertising firm Doubleclick became especially good at gathering user data, collected through cookies and surveys for direct marketing purposes. Although web site cookies don't reveal a user's name and address, they do establish where a user is accessing from, his or her country and type of establishment, and the web sites he or she is accessing. Doubleclick used this information against its growing database of banner advertisements, and matches advertisers to the web user's profile. "While we don't know who exactly you are," Doubleclick's president said in 1999, "there are about 20 to 25 things we can tell about an individual" (Stakes, 1999). Consequently, any kind of information to better target a user became desirable. Many web sites began to sell

their customer information to companies like Doubleclick—names, addresses and product preferences that they had gathered through product purchases through their site. Doubleclick would cross-reference this data with other user-access data, and deliver personal profiles on web users that were both accurate and constantly evolving along with their tastes and interests. The strategies appeared to be working. Online sales began to climb, going from a modest \$3 billion in 1997 to \$33 billion in 1999. Industry analysts predicted that online spending due to banner ads would reach \$199 billion in 2005.

Consequently, providing “sticky” educational portals to students, complete with highly targeted advertising, became a significant marketing strategy for targeting young people in and out of school. By the late 1990s, companies had rolled out a number of competing commercial educational portals—ZapMe!, HomeworkCentral, Yahoo!igans!, Lightspan, Britannica.com, BigChalk, HiFusion, Imind, MindSurf, SchoolCity, Blue Web’N, Eduhound, and Education Planet—that all fused educational content (mostly aggregated links to other known sites) with in-your-face advertising and shopping opportunities. Much was made about the many educational links on these sites, which were categorized under broad subject headings (Literature, History, Science, etc.) and selected by “highly qualified content experts.” To make their services even more indispensable, the portals added email, reference, career guide, and web page personalization services to their offerings. The hope was that students would find these services so helpful for their schoolwork and communication needs that they would extend their portal usage to after-school hours, where their parents could access the portal as well.

ZapMe! was especially flagrant in its attempt to both educate and market to students during school. In an arrangement similar to Channel One, ZapMe! “gave” entire computer labs to schools with the agreement that students had to be logged onto the ZapMe! netspace for four hours every school day. ZapMe! schools also had to hand over students’ personal data so the company could better target its commercial elements to individual students. The company positioned banner ads on both the top and bottom of its interface, and a “dynamic billboard” (a constantly moving, interactive ad) on the bottom left of the screen. Every activity a student performed on the lab’s computer was framed by these advertisements, even word processing. The company gained particular notoriety for its ZapPoints, ZapCash, and ZapMall programs (Fabos, 2000, Parija, 1999). Students earned points every moment they surfed the web, and they could redeem their points “for all sorts of cool stuff” at the ZapMall. ZapMe!’s ZapCash program was a way for students to interact directly with their bank accounts. By the fall of 1999, 2000 schools had signed up for the ZapMe! deal, and 15,000 were on the waiting list, mostly because of the free computers. Zapme!’s stock was worth half a billion dollars and the company hoped to reach a student audience of 10 million by 2002—2 million more than Channel One (Schwartz, 2000).

### The Marketing is the Message

Given the increasingly overwhelming amount of data available on the web, commercial educational portals, which ostensibly grouped the most academically useful web sites by subject, seemed like a good idea. The problem with these portals, however, was that more efforts were clearly placed behind the marketing and shopping elements than on the educational content. It was painfully obvious, for example, that most of ZapMe!’s resources were geared towards marketing schemes, and little thought or effort seemed to be given towards the 13,000 educational links provided in ZapMe!’s main directory, which was marketed as an end-all

resource for students. For example, a student would have trouble trying to find a link to the most prominent African American organization in the U.S., the NAACP, under the “African American Culture” category. Although ZapMe! content editors provided prominent links to “The BlackMarket.com (offering products, services, and feature stories for the African American community) and the “Kwanzaa Information Center” (sponsored by the MelaNet Marketplace), the NAACP was noticeably absent. ZapMe! also celebrated its Newsstand section, which ostensibly linked to newspapers around the world, but didn’t include papers from Australia or Canada. Many of the links were also broken or inaccessible. Certainly, a good number of web sites located within the ZapMe! netspace were valuable educational resources, but one could hardly call the directory an all-encompassing information tool (or in ZapMe!’s words, “a rich storehouse of information” and “the ultimate environment for getting the facts.”)

ZapMe!’s own corporate pages revealed where the company’s priorities lay. Its management team had backgrounds in information technology systems, computer superstore chains, consumer database marketing, children’s product and multimedia entertainment, and global information technology services. Noticeably missing were educators. Perhaps even more telling were ZapMe!’s employment announcement pages. As a rapidly growing company in December 1999, ZapMe! reported that it needed people to:

- coordinate with copywriters and the Content group to integrate appropriate content into promotions
- work with teachers to gain priorities and make recommendations on what courses and curricula to prioritize
- promote and implement revenue generating shopping experiences for parents of teens within the ZapMe! e-commerce site, and
- develop programs which leverage the ZapMe! school relationship to attract parents to shop with ZapMe!

Judging from these announcements, ZapMe! wanted to expand its resources into teacher training and the development of actual courses that were highly dependent on the ZapMe! interface. The company also wanted to develop new ways for parents and teens to use the interface at home in order to integrate the ZapMe! portal (and its many e-commerce opportunities) into their home lives. These strategies were intended to push ZapMe! use well beyond the daily four-hour in-school requirement, with the hope that ZapMe! would become an indispensable curriculum content, communication service, and shopping mall, 24 hours a day.

As it turned out, ZapMe! and most other commercial educational initiatives failed by 2001. It seemed that ZapMe!, in particular, failed because of its unabashedly commercialized internet content. Beginning in January 2000, a broad coalition of advocates, headed by Gary Ruskin of the public watchdog group Commercial Alert, sent a letter to all 50 governors to bring ZapMe!’s marketing practices to public attention. The letter charged ZapMe! with taking advantage of “a captive audience of children,” turning students into “guinea pigs for advertising and marketing firms” and transforming schools and teachers into “instruments of corporate marketing” (Coalition, 2000). News of the letter reached the *New York Times*, and ZapMe! executives found themselves defending the core of their corporate strategies. Other articles soon appeared in *Newsweek*, *The Wall Street Journal*, *U.S. News and World Report*, *Mother Jones*, *The Nation*, *Salon.com Magazine*, *Education Week*, and the *School Library Journal*.

ZapMe! responded to the criticism by quietly changing their “ZapMall” link on the main page to an “Entertainment” button, getting rid of the ZapPoints and ZapCash programs, and

burying other controversial elements of their interface. Despite these efforts, the bad publicity had clearly impacted the company. Advertisers no longer wanted to associate their brand with ZapMe! and its stock, which had been worth \$13.75 at its height, plummeted to \$2. The company's founder Lance Mortensen (formerly the CEO of the Monterey Pasta Company) acted dumbfounded to criticism that the company made commercial intrusions into students' school lives. "The privacy thing is mind-boggling because we never took a student's address, never took a student's phone number" he told the *New York Times*. "It's heartbreaking to me that the opportunity we gave America's schools was taken away by a few people" (Schwartz, p. 1-2). Like the public relations information on the ZapMe! web site, Mortensen framed the company objective as educational—a way to solve the digital divide—not as an advertising delivery, market research, and surveillance venture.

By November 2000, ZapMe! had collapsed as an educational service and had changed its business plan to selling satellite internet services to businesses. ZapMe!'s end was a victory for both privacy and child advocates, and certainly a victory for education. At least it appeared to be. As ZapMe! was being publicly lambasted and held up as the worst example of online educational practices, other commercial educational portals were watching and learning from ZapMe!'s mistakes. Homeworkcentral removed the shopping buttons on its main interface. Other commercial education portals adjusted their corporate strategies to appease the privacy-advocacy groups and make their services appear to have the interests of the student users as their first priority. None of these services would be touched by the same kind of public wrath that led to ZapMe!'s demise.

Still, within a year, most of these commercial education portals (indeed, many content portals in general) followed ZapMe! into oblivion. One could certainly cite mismanagement and over-inflated company expectations—as in the case of Imind. The company's former employees were so angry at their CEO and his misguided excess that they developed a parody of the educational portal, complete with satiric haikus and photographs (Imind, 2003). Internet technology stocks also crashed in 2000, prompting Wall Street to demand immediate profitability for internet ventures. Another more pervasive reason for the collapse of so many educational portals—not to mention all advertising-supported web sites—was that banner advertisements were just not working. The novelty had worn off and click-through rates were rapidly decreasing. The industry responded by making banner ads more eye-catching and interactive. In February 2001, the Interactive Advertising Bureau issued standards for seven new, larger ad formats—"sky scrapers" and "large rectangles"—that would permeate the content of a web page, following a newspaper model. Pop-up and pop-under ads also became more plentiful, requiring internet users to actively click boxes closed before accessing web site material or after closing out of a browser. "Internet users should expect more ads and new ads, such as cartoons floating across the screen, transparent ads and mini-games," reported Jonathan Lambeth in the *London Daily Telegraph*. "Whatever its appearance, online advertising desperately needs to find a way to increase its 'click-through,' or success rate" (2001, p. 2). Consequently, by mid-2001, users who logged on to bigchalk.com were greeted by Toucan Sam, the familiar Kellogg's Froot Loops icon, who swooped down across the entire bigchalk interface as the page loaded up. Students were asked to "Play the Toucan Sam Tree Toss Game," which ultimately steered students to the toucansam.com web site and asked them to fill out a form to win a free computer. However, none of these efforts had great results. Shortly after the Toucan trial, bigchalk.com (which had already absorbed HomeworkCentral), folded.

When it came to educational portals or any commercial, youth-targeted web site, it seemed that actual click-through rates were not the real problem. As the demographic most susceptible to banner advertising (Reuters, 2000), young people actually *were* clicking on banner advertisements, and with abandon. But they weren't buying anything, and the reason was because—in retrospect this is painfully obvious—they don't own credit cards. This major miscalculation by market analysts makes all the earlier postulations about teen online spending now seem preposterous. Students spent, on average, only \$31 on online merchandise in 2001. As Rachel Konrad (2002) explained, teens are impulse buyers, and it's simply more convenient to head to the mall with some cash than it is to beg parents for use of their Visa. (As the long list of now-defunct shopping card companies indicate, teens were not using these either.) Today, most commercial sites, like Amazon.com, completely ignore shoppers under the age 18. For educational portals so dependent upon students to act on their desires, this reality did not bode well for their survival.

### Educational Portals as Branding Opportunities

Not counting Britannica.com and Lightspeed, which both folded their portals into larger, fee-based educational services, only two main educational portals survived the fallout of 2000 and the years beyond. One of them was [AOL@School](#). Launched to much fanfare in 2000, the AOL Time Warner subsidiary was quickly endorsed by governors in six states and administrators (not teachers) as “the premier learning tool for K-12 students” (AOL, 2001). By 2002, the new education portal was adopted by 36 percent of U.S. schools, and had a presence in all 50 states (AOL, 2002). AOL@School caters to K-12 students, as well as teachers and administrators, and unlike its precursors, it carries no banner advertising. Instead, the portal is heavily sponsored by a growing list of partners. Some partners offer products (e.g., Dell, Office Depot, Peterson's), which are featured on the “School Supplies” page. Other sponsors offer content (e.g., BrainPOP, KidsEdge), which is heavily integrated into the portal's educational links. Other partners are subsidiaries of AOL Time Warner (e.g., *Time* magazine, CNN, and Warner Bros, [AOL@School's](#) corporate parent).

Yahooligans! is the other educational portal that has managed to stay healthy. Unveiled in 1996, Yahooligans! has long established itself as a safe and educational destination for children K-8, and has been popular among teachers since its release (Paul & Williams, 1999). Unlike AOL@School, Yahooligans! carries busy banner ads, but it is quickly apparent that almost all the ads are for some aspect of Yahooligans! Web offerings (its kid-friendly news service, its safe surfing guide, its movie information). External sponsorship also exists. For example, in 2002, Yahooligans! staged a “Name the Hottest Toys!” contest. The poll asked kids to vote on what they really wanted to get for the holiday season based on a list recommended by KBtoys.com. The kids (23,000 responded) could then email their favorite toy picks to their parents or grandparents, who were linked directly to the KBtoys.com web site, where they could, ostensibly, buy the toy (Yahoo!, 2002).

While sponsorship and “hot toy” gimmicks may be financially beneficial for both [AOL@School](#) and Yahoo!, neither company depends upon these strategies for survival. Both companies are enormous and highly capitalized, and therefore can afford to use their educational sites as long-term initiatives to better brand their companies. As such, they depend upon establishing a friendly presence in kids' lives when they are young, acclimating them to the corporate brand, and retaining loyal customers. Both AOL Time Warner and Yahoo! now

operate Internet Service Providers, which connect people to the internet. They also operate competing email and IM services (MSN is another intense rival). By converting children to their educational subsidiaries at an early age, AOL and Yahoo! create a continuous flow of new users to their regular portal services. In other words, these companies do not need to meet demands for immediate profitability that plagued other educational portal startups; they can use their portals as conduits to their other commercial platforms; the payoff can come later.

This is not to say that [AOL@School](#) and Yahoo!igans!'s educational offerings are not valuable. To the contrary, the links—many of them drawn from a small pool of government and university-sponsored projects—can be extremely useful for teachers and students. But the links overall are not overwhelmingly comprehensive, for example. A 2003 AOL@School search using the term “Johnny Appleseed” yielded 6 links: one crossword puzzle, two craft pages, two dead links, and one link that merely listed Johnny Appleseed’s real name. [The same search in 2002 yielded a PR page (targeting kids) from the Processed Apples Institute (“Welcome AJ and the Jammin’ Juicers!”) as the first link. Perhaps a little too commercial, that link is now gone]. Johnny Appleseed is a staple of American history, but AOL@School clearly fails with this flimsy selection of sites.

#### For Better or For Worse?: Education with Commercial Search Engines

Despite the increasing penetration of [AOL@School](#), and the ubiquity of Yahoo!igans!, educational portals are ultimately not the way students access the web. Commercial search engines, not educational portals, are the tool of choice. A study conducted by the Pew Internet and American Life Project in 2002 found that 85 percent of students used an online search engine to find information (Internet, 2002). A subsequent study, conducted by the same organization a year and a half later, revealed that commercial search engines have largely replaced libraries altogether as a venue for college student research. Teachers also gravitate to search engines. “Evidence shows that educators prefer search engines because the results include information from a much wider variety of sources,” writes Pete MacKay (2003) in the popular educational journal, *Technology and Learning*. “As one surveyed teacher replied, ‘I would rather cull the search responses on Google than deal with what [a portal] thinks is appropriate for kids’” (p. 34).

Besides their perceived breadth, search engines are also tremendously easy to use, and gratifying. Results come automatically; a user can feel the power of search engines and appreciate the extensiveness of the web in gleaning thousands upon thousands of hits. And there is no getting lost within the deep links of a subject directory’s database. A Back button returns a user to the main search results page. In 2003, search engines continued to be the most visited locations on the web. It is this growing dependence on search engines, however, that has led to their increased commercialization, their success as a business enterprise, and their erosion as trustworthy informational tools.

Search engines were once considered a failed business idea because they were only a conduit to other pages. In other words, they lacked stickiness; no one stayed long enough to see the advertising. In response to this crisis, search engine portals tried to develop new services to attract and retain users. For example, AltaVista spent millions to develop new portal content that it hoped would make it a comprehensive web portal for not only searches but other activities such as news, travel, and shopping. Google resisted such efforts, and instead insisted on focusing on being the best syndicated search engine provider, with the most relevant search results.

However, analysts mocked Google for its seeming lack of a means to make money from its singular mission of search excellence.

Then, search engine portals began experimenting with sponsored links—a list of two or three paying sites that appear above the actual search results. Because sponsored links are so highly targeted (they directly relate to the search terms that users type in), they became enormously profitable. A small company dealing with specialized golf equipment, for example, could sponsor a link that accompanied a user’s search on golf, directly targeting the golfer. Oftentimes because users didn’t know the difference between sponsored and actual searches, they were clicking sponsored links 12 to 17 percent of the time (Waters, 2003) (far in excess of the less than one percent banner ad click-through rate today) (Harvey, 2003b). And every time a user clicked on a sponsored link, the search engine earned money. Not surprisingly, search engine services barely distinguished between the sponsored and non-sponsored categories in order to generate more click-throughs.

When understanding the search engine industry and its gradual and quiet commercialization, it is important to understand the distinctions between the three facets of the search engine industry: search engine providers, search engine portals, and commercial search engine providers.

*Search engine providers* own and manage web indexes—huge databases of web pages. They have also developed complicated algorithms (basically a step-by-step procedure) for searching (or “crawling”) their indexes quickly, comprehensively, and *impartially*. Google, for example, the most popular search engine provider, prioritizes sites according to a “link analysis” strategy: it determines a site’s popularity based on the number of other sites that have links pointing to it. Because the task of developing a huge web index is so huge, there were only five major search engine providers in 2003: Google, AlltheWeb, Inktomi, Teoma, and Altavista, each with their own unique algorithm, which they syndicated to search engine portals.

*Search engine portals* are web sites powered by a search engine provider (most often one of the top five). For example, in 2003, the portals Yahoo!, Netscape, and AOL, as well as thousands of smaller web sites (e.g., MarthaStewart.com) were all powered by Google. Indeed, Google made half its revenue from selling its search technology to various web sites (Harvey, 2003a). The search portal Lycos was powered by AlltheWeb. MSN, Amazon.com, and eBay were powered by Inktomi. AskJeeves was powered by Teoma, and Hotbot was powered by four search engine providers—Google, AlltheWeb, Inktomi and Teoma. These different relationships explain why some search engine services (e.g., Yahoo! and Netscape) have more similar results than others: they are powered by the same search engine provider (Google). However, to complicate the matter, a few search engine providers, such as Google, AlltheWeb, and AltaVista also operate “branded” search engine portals. Google operates the most popular search portal, processing 55 percent of all search engine queries in 2003 (Nunberg, 2003); AlltheWeb remains an especially popular search engine portal throughout Europe and has a growing following in the U.S. AltaVista operated one of the first popular search engine portals and is only now trying to resurrect its faded glory after its earlier redesign missteps.

If the operations of search engines weren’t already complicated enough, there is a third kind of company in the mix—*commercial search providers*. These companies broker commercial sponsorships for web search results and syndicate their services to search portals. Commercial search providers, then, act a lot like search engine providers in that they syndicate their search technology—the major difference is that they search through a database of advertisers.

Accordingly, a search engine portal allies itself with both an impartial search engine provider and a commercial search engine provider, and runs the two searches side by side, with the results appearing in separate locations on the search result list. That's the way it worked, at least in the beginning. Then came Overture. Beginning in 1998 as Goto.com and changing its name in 2001, Overture quickly developed a large advertiser index and successfully brokered "sponsored sites" that appeared above and beside actual search results. However, Overture's main success came from its "Pay-For-Performance™" strategy. Overture basically sold advertisers priority placement *within the supposedly impartial result list itself*. The higher an advertiser's bid, the higher the web site was placed in a search result list. High placement within a search result list is important for two reasons. First, users trust this list because they mistakenly believe it impartially prioritizes web sites according to the key terms entered. Second, users typically don't tend to look beyond the first two or three pages in a search result list, believing that the first two pages are the most relevant (Lasica, 2001). As such, Overture stacked each search result list with the web sites of paying customers, which appeared on the first, and sometime second pages of the list. Because the idea was instantly profitable—especially compared to the earlier search engine portal strategy of banner ads—most of the major search portals on the web began to syndicate Overture's services. One Lycos executive justified the practice this way:

We thought long and hard and decided it doesn't matter if we are paid for a link, so long as the results are what the user wants...the industry has trained users to avoid anything that looks commercial. By calling them paid listings, it hurts the user. (Lasica, 2001, p. 2)

Indeed, the growing justification among internet industry folk was that people generally use the web for commercial purposes anyway. They use the web to find flower delivery services, or to purchase a barbecue grill. By 2002, Overture had signed up 80,000 advertisers (Overture, 2003a) and was distributing its for-profit search results to tens of thousands of web sites across the internet, including MSN, Yahoo!, Netscape, AOL, Infospace and ESPN.com. These web sites retained their impartial search provider (e.g., Google), but cross-listed this database with Overture's growing list of index of sponsored web links. In a single quarter of 2002, Overture facilitated 563 million "paid introductions" and made \$126 million, compared to Google's approximately \$15 million in revenue for its main business of running impartial searches (Overture, 2003b).

Accordingly, searches became increasingly stacked with sponsored web sites, unbeknownst to internet users. Alarmed that the supposedly objective search result lists of nearly all search engines had become front-loaded with commercial sites, the consumer activist group Commercial Alert successfully pressured the Federal Trade Commission (FTC) to conduct a study on deceptive search engine practices. Completed in June 2002, the study reported, not surprisingly, that the web's largest search engines did not reveal the preferred treatment they accorded to sponsors. Indeed, Google, was the *only* search engine that met FTC criteria in terms of disclosing money influences in the display of search results. The FTC's response was to call for self-regulation, which was another way of tacitly turning a blind eye to the pay-for-performance strategy (Associated, 2002).

In the meantime, new developments in commercial search practices made the search engine result list even more commercial-heavy. AlltheWeb, Inktomi, Teoma, and Altavista—the top search engine providers except for Google—instigated "paid inclusion" programs: Advertisers pay a search engine provider to frequently review their web pages with its search

engine crawler. Basically, paid inclusion guarantees that the web site gets considered for all of the engine's searches. It does not guarantee the web site's rank within the search results, but it does guarantee inclusion somewhere, and for niche topics, this bodes well for the advertiser. As reporter Chris Gaither (2003) explains, "Internet companies have realized that, if someone is hunting for information on a topic like mesothelioma, the person is ripe for specialized advertising" (p. F1). A key part of the flat fee also involves advice on how to write advertisers' listings so as to further enhance their position. "Since [commercial search engines] alone understand how the algorithms inside their search engine 'black boxes' work," *Financial Times* reporter Richard Waters observed, "they generally know how to game the system, though it is a power they claim to use responsibly" (Waters, 2003).

Only one search engine provider/portal has resisted both pay-for-placement and paid inclusion. Google has taken an admirable stance on search engine integrity since its inception, and has refused to allow any direct commercial influence in its search result lists. This is not to say that Google's result lists are free from market influence. An entire mini-industry exists to influence placement with the databases of impartial search engines. The search engine optimization (SEO) market, which offers "positioning" and "advisory & marketing" services to its clients, continues to flourish. These small SEO companies, which try to secure prominent listings for their clients, are sharply focused on securing prominent listings on Google, a sort of Holy Grail for SEOs. In fact, one of the most typical promotional statements appearing on these companies' web sites concerns the ability to crack the patterns behind Google's objective search results. "We understand the 'spidering' schedule that Google employs," says Morevisibility.com. "By submitting at the appropriate intervals, we are able to systematically deep-penetrate the Google database" (MoreVisibility, 2003). Meanwhile, as Fiona Harvey of the *Financial Times* has reported, "so many small companies have sprung up in this field that Google engineers spend much of their time tweaking its search criteria in order not to fall prey to them" (2003b, p. 32). Moreover, since Google's algorithm strategy is based on the number of links pointing to a site (ostensibly making it more popular), for-profit entities have become savvy to the linking game, working with other companies to increase the number of links leading to their web sites. Calling this scheme "horizontal marketing," the company LinkBrokerage.com explains that "The more sites you can get your link on, the better chance to increase traffic." EGS Brokerage also offers a "reciprocal" linking service for all health and insurance-related websites. "Reciprocal links with websites that have a common theme increases your popularity in the search engines, boosts your rankings, and provide a service for your customers," the company's promotional material reads (EGS, 2003). As much as Google wants to be the *New York Times* of search engines, the insistent pressure from commercial forces makes this nearly impossible.

This newfound profitability of elite and above-the-fray search engine providers—through pay-for-placement and paid inclusion programs—has made them a desirable acquisition for the bigger players in the internet industry. In late 2002, Yahoo!, which had just released its own search technology (one that was loosely based on Google's idea), bought Inktomi for \$235 million. "The paid-inclusion model is really icing on the cake," said Yahoo! Chief Financial Officer Sue Decker in 2003. "That alone really justifies the price of the transaction" (Reuters, 2003). In another bold move a few months later, Overture bought both AlltheWeb (\$70 million) and Altavista (\$140 million). As a company controlling both impartial search engine providers and a bank of 80,000 (and growing) advertisers, the sponsorship opportunities for Overture became endless with these deals. Microsoft, too, got into the search engine business in 2003 with the release of its own algorithm. "We want to be a leader in search," a project manager for

Microsoft's MSN told a reporter in June, 2003 (Francisco, 2003). And with a final sweep a month later, Yahoo! bought Overture for \$1.63 billion, securing the company as the reigning emperor of the search engine industry. AOL Time Warner is the only large web property that does not yet have a stake in the search engine business, which, by 2007, is expected to reach \$7 billion (Elkin, 2003).

As people habitually turn to commercial search engines to navigate an overwhelming web environment, they are unaware of the increasing difficulties to locate content that is *not* commercial. They are unaware of the misleading motives of the internet navigation tools they use, and of the constant efforts among for-profit enterprise to bend the internet towards their ends. Robert McChesney wrote in 1998 that "advertisers and commercialism arguably have more influence over internet content than anywhere else" (p. 24). Considering the above examples, he could not have been closer to the truth. The web is being colonized by commercial interests and big media companies. This, however, is certainly not surprising. Given the history of media technology, which all showed democratic potential in their developmental phases, and given the economic and political structure in which we live, which favors commercial enterprise, we can expect that the medium will be controlled and dominated by market forces. What happens, then, when such a medium is used in schools as a legitimate and presumably neutral information source? What happens when the commercial highway runs right through the classroom?