

# EDS *f* REPORT

LEADING RESEARCH FOR THE  
DOCUMENT COMMUNICATION INDUSTRY

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## The ad economy

The ad industry will generate \$5.2 trillion in direct and indirect spending in the U.S., or 20.5 percent of U.S. economic activity in 2005, according to projections released by a coalition of leading ad trade associations. As big as that seems, it actually represents a decline of about 5 percent from 2004, a year fueled by incremental ad spending from the Olympics and political advertising campaigns. Not surprisingly,

advertising's impact on U.S. employment will also fall slightly in 2005, though advertising will still account for about 21 million jobs in the U.S. next year. The drop in employment activity was attributed to improved "productivity" based on advanced computer programs for analysis as well as ad production.

The study, "Comprehensive Economic Impact of Advertising Expenditures," was compiled by Global Insight for trade groups including the American Association of Advertising Agencies and the Association of National Advertisers, which comprise The Advertising Coalition. The report accounts for all economic activity generated by advertising, including direct spending, supplier spending, and inter-industry activity.

The release of the study comes at a time when a wide array of government policies and potential laws threaten to curtail or prohibit certain forms of advertising, including such mega categories as food and direct-to-consumer prescription drugs.

"This is the kind of analysis that's going to affect government policy," said Michael Raimondi, executive managing director of Global Insight's IT and telecom consulting practice, who headed the project. The study takes into account indirect connections, such as the increased revenues of non ad-related companies that advertise, and the jobs they will create with those extra funds.

Total advertising spending by businesses in the U.S. for 2005 is projected to reach approximately \$278 billion, according to the study. The total estimated impact of the advertising industry included the spending on advertising, the direct impact on sales of \$2.3 trillion, the impact on supplier economic activity of \$1.2 trillion, and the impact on inter-industry economic activity of \$1.4 tril-

lion. The estimated 21,117,903 jobs supported by advertising spending in the United States was made up of 10.3 million jobs from sales directly generated by advertising, another 4.7 million jobs generated by suppliers of products and services to the direct sales employers, and 6 million jobs from third tier inter-industry businesses that support direct sellers and suppliers.

The study was conducted for the Advertising Tax Coalition (ATC) which is comprised of nine national media and advertising trade associations. In 1988, seven industry groups formed the Advertising Tax Council to coordinate their efforts to fight federal advertising tax proposals. The ATC includes nine associations: the American Advertising Federation (AAF); the American Association of Advertising Agencies (AAAA); the Association of National Advertisers (ANA); the Grocery Manufacturers of America (GMA); the Magazine Publishers of America (MPA); the National Association of Broadcasters (NAB); the National Cable & Telecommunications Association (NCTA); the Newspaper Association of America (NAA); and the Pharmaceutical Research and Manufacturers of America (PRMA).

The study defines the relationship between the amount spent on advertising by businesses throughout the economy and the impact those expenditures have on economic activity and job creation in all states, metropolitan areas, and congressional districts in the United States.

This landmark study demonstrates that advertising stimulates additional purchases by providing important and useful information to a broad range of purchasers in households and businesses—a critical function in a market economy.

### DID YOU HEAR?

- One-third of Lands' End business was online in 2003-2004. Catalog retailers will get 45% via the Web this holiday season versus 37% last time (J. Schmid & Assoc.).
- One-quarter of all small businesses advertise through Internet Yellow Pages says the Kelsey Group. This is why SBC and BellSouth combined to acquire YellowPages.com recently (DM News).
- The USPS forecasts a 2 billion piece decrease in First Class mail in 2005, replaced by Standard Mail, which is about 15 cents less per piece in revenue but about the same in handling cost. This led Cary Baer in DM News to state that the USPS has a first class rate structure and a third class revenue stream.
- In the 1960s advertisers could reach 80% of the marketplace through the three main television networks. It would now take a media buy on 100 cable channels to reach the same audience (Scott Marden at Folio:Show).
- In 1985 McGraw-Hill got 65% of its revenue from advertising. Today, it is 8%. The company has still grown with new products based on research, the Web, seminars, ratings services, and more (McGraw-Hill).
- After creeping along at 1.5% per year in the 1990s, productivity has risen 14% since 2001, based on investments in IT infrastructure from 1990 to 2000 (Business 2.0).
- Home Depot discovered that every hour of employee training increases revenue per employee by thousands of dollars (Home Depot and Merrill Lynch).
- 15% of all newsstand sales of magazines occur at Wal-Mart. 138 million shoppers visit one of their 3,084 outlets each week (BW).
- Adobe business development manager Michael Ouslander mentioned that Adobe Reader downloads have now exceeded 700 million.
- 20% of American households have high-speed Internet connections with half via a cable modem (Department of Commerce).
- About 20% to 30% of legitimate e-mails do not reach the target inbox, according to Deirdre Baird, CEO of Pivotal Veracity, an independent e-mail delivery and audit organization.

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## DIRECT MARKETING BY DICKENS

Novelists of the Victorian era had no competitors—there was not much to do but read because there were no TV, radio, telephones, iPods, or motion pictures. Parks were closed on Sundays, thanks to the Evangelicals, so reading became a family affair, and parents read novels to children and family.

Most novels were not purchased but borrowed from circulating libraries. Serial publication yielded greater profits and transformed Dickens, and his publishers, Chapman, and Hall, from minor figures in Victorian letters to titans. The changes in publishing converged in 1836 and were connected by two shrewd and lucky booksellers and the one man who could write like the Dickens. The nineteenth-century Victorian serial novel began as a way to avoid an English tax. Newspapers paid a tax on the paper they used; they avoided extra tax by using bigger sheets of paper and calling them pamphlets. However, these bigger sheets had more space for text, and serialization filled them up. When the paper tax was finally repealed, serialization continued. A popular serial could double readership. Most Victorian novels were published in three volumes at about \$1 per volume in today's currency. Readers who could not afford to buy new novels flocked to the circulating libraries all over the country. Led by Charles Mudie's or W. H. Smith's, they controlled the market in new novels, with a censorious eye on the moral and religious content.

The unexpected success of Dickens's Pickwick Papers in 1836-7 revitalized the practice of publishing in shilling monthly

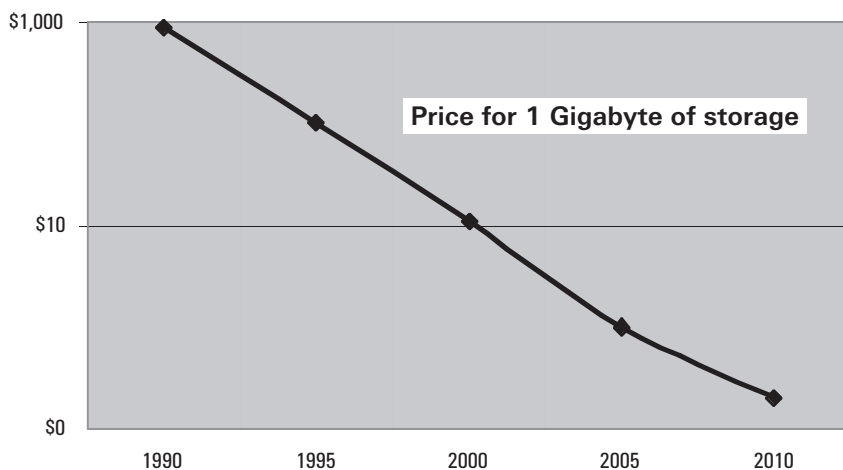
numbers. Once a serial was completed, and the novel had exhausted its original market in three volumes, it might be reprinted in a cheaper (50 cent) one-volume edition, a yellowback self-cover, in one of the popular Railway Libraries. The intervals between these editions contracted, and by the 1880s the six shilling novel emerged as the preferred form for new fiction. The circulating libraries in 1894 announced that they would pay no more than four shillings a volume for fiction, signalling the death of the 'three-decker' novel.

Bob Hemmings, a principal at Hemmings IV Direct, says that Dickens was the great-grandfather of direct marketing.

Multiple installments: Direct marketers would call this a continuity program payable in monthly installments. Dickens said you should not bore a reader: Direct marketers know that people don't read advertising, they read what interests them. Because of the monthly chapters, Dickens was able to match his story to the season: Direct Marketers call this seasonality. Readers would respond with letters of concerns and suggestions. With such feedback, Dickens would adapt succeeding chapters to satisfy public opinion: This was a form of market research. Dickens received fan mail from all over the world, testimonials, and suggested alternative endings for his novels. Readers were actively involved: Direct marketers would call this CRM, customer relationship marketing. Of the 20 installments you only bought 19—the 20th was free. Dickens was on to something there.

## Thanks for the memories

If the current downward trajectory continues, we may someday see storage systems that are virtually free. Take the retail price for 1 gigabyte of storage. It has gone from about \$900 to almost \$1 in 15 years. Projections show that it could reach a lowly ten cents by 2015. Now, if only gasoline could do the same thing.



# WHAT IS A DOCUMENT?

Documents support human knowledge. But what is a “document?”

*Document: writing that provides information (especially information of an official nature); anything serving as a representation of a person's thinking by means of symbolic marks.*

*Information: a message received and understood; a collection of facts from which conclusions may be drawn; “statistical data;” knowledge acquired through study or experience or instruction.*

The dictionary definitions are behind-the-times. Documents have changed. Paper documents were a simple concept, but digital documents are much more complex. Documents make transformations which include:

*Content transformations:* relationships with external documents (hyperlinks).

*Time transformations:* the evolution of the document's semantics.

*Social transformations:* collaborative/distributed authoring/rights processes.

*Format transformations:* paper to digital form and back again.

*Representation transformations:* text, voice, video, paper, PDA screens, laptop screens, etc.

Documents can be presented in many digital forms:

## *Digital—Bitmap*

Document stored as an array of pixels—a digital “picture” of the document. Simple 1-to-1 representation of the physical document. Examples: TIFF, GIF, BMP. Characterized by large storage volume, little processing for imaging, and no virtually no editability.

## *Digital—Page Description*

Contains “objects,” such as characters, graphics, images, and a description of where (and sometimes how) they appear. Text not re-flowable. Examples: PostScript, PDF, PCL. Characterized by reasonably compact storage, processing required for imaging (“RIP”), device independence, and marginal editability (moving objects).

## *Digital—Styled Document*

Document contains styled and sequenced graphic elements, and a limited amount of structure. Text is re-flowable. Example: DOC (MS Word Document), WPF, or RTF. Characterized by compact storage, requires pro-

cessing for output (driver), completely editable, but not structure-driven editing.

## *Digital—Structured Document*

Document is highly structured but text re-flowable. Examples: SGML, XML (HTML is hybrid—some properties of ML, some of the page description language). Characterized by high structure-driven editability and need for often complex editing tools. Used in technical documents.

## Networked Documents

Parts of documents may be stored in different locations on the network—images on an

image server, for example, or on a large number of logically linked servers. Documents are then dynamically “assembled” when viewing or printing. This requires computer networks with high performance and high availability. Dynamic document assembly is based on hyperlinking. Network-based storage of corporate documents requires a Document Storage Architecture with robust links and strong link management.

## The “New Document”

The “New Document” is live, dynamic, updatable—“freezes” when printed or converted to a static (conventional digital) document—

“lives on the net” and is hyperlinked with links that are resolved at rendering time (printing or viewing).

The New Document is also intelligent, adaptable, and understands the limitation of delivery and communication channels, and of viewing or printing equipment, and adapts itself accordingly.

Dr. Patrick Bergmans, formerly of the Xerox Research Center Europe, articulated many of these concepts in 2000. He said that bi-directional linking, link registry, link ownership, and link lifetime management are key to the future of the document as it is born and lives in digital form, or is converted from paper to digital formats and back again.

### DOCUMENT HIERARCHY

Knowledge  
Intent  
Meaning  
Form (language, pictorial, musical, gesture)  
Content (text, artwork)  
Logical structure (DTD)  
Structured content (SGML, XML)  
Presentation format (style sheet)  
Styled content (.doc, .rtf)  
Resources (fonts)  
Output representation (PostScript, PDF, PCL)  
Media properties (page size, screen resolution)  
Image (TIFF, GIF)  
Device properties (VHS, DVD, screen, CD)  
Physical representation (paper, sound, video, audio)

## 80 million ink jet printers can't be wrong

InfoTrends/CAP Ventures reports that 80 million ink jet devices were installed WW last year, making this the dominant printer technology in the desktop arena. The total number of ink jet multifunctional imaging devices installed in the U.S. is growing quickly as users want more functionality within a single product, a major enabler of the specialty media market. Out of the 116 billion prints produced on paper-based media by ink jet products in 2004, specialty media was used for nearly 30 billion of these prints. Commodity and specialty media are expected to experience steady growth over the period 2002 to 2007. During that same timeframe, innovative ink jet media will continue to show signs of growth and will increase at a compound annual growth rate (CAGR) of 3.5%.

Specialty media offer a wide variety of choices in terms of sheet coatings, finishes, package sizes, and product types. Specialty paper products do not include plain paper or multipurpose papers. The market is dominated by coated papers, photographic papers, card stock, and label supplies (transparencies are dying if not dead). A growth in the number of prints is expected to occur in every key specialty media product category except for coated papers due to the improved quality and lower price of uncoated papers. Photo papers are experiencing the highest growth rates due to digital cameras, easy electronic transmission of images, and some printers priced below \$50. InfoTrends/CAPV expects the sales of all photo papers to experience a CAGR of 16% between 2002 and 2007.

## Smarty pants and mood clothing

Trousers embedded with electronic display technology could change color in response to their surroundings. As new plastic "chips" become cheap and reliable, electronic circuits can be printed on clothing, paper, billboards, or anything else. Unlike silicon-based technologies, organic (carbon-based) materials are flexible, can be processed at low temperatures, and lend themselves to large-area applications, such as wallpaper. The emerging field of organic electronics can only deliver on its commercial promise as new measurements, standards, and processing capabilities are developed. The range of potential materials for organic electronics ranges from polymers to nanocomposites. The number of synthesis and processing methods under consideration is daunting. Examples include ink-jet printing, roll-to-roll printing, and various ways to coax molecules to self-assemble themselves into components. Thus, clothes that change colors electronically may be coming to our closets. The Defense Department wants military uniforms that can adapt to different environments, providing on-the-fly camouflage for soldiers. The world in which clothing, paint, lighting, rugs, and curtains all change colors to match (or influence) our mood is coming, but a lot of technology has to be made affordable and durable before then. Many companies are working on ways to weave touch sensors into fabrics and textiles. Display technology will eventually be all around us, even painted on walls and ceilings. And personal technology will be woven into our clothing.

## Cheaper by the digital dozen

Average prices of many technology products are down according to the latest NPD Consumer Electronics Price Watch, a monthly pricing monitor from The NPD Group that provides a look into the pricing of tech products being sold in the U.S. Prices for a market basket of technology items, including plasma TVs and digital cameras, fell 18 percent versus 2003, the sharpest year-over-year percentage decline. The Price Watch basket of goods fell \$2,533 from last year's level. Since 2003, the products tracked have fallen in price by 31 percent. Recent results were driven by pricing declines in the display industry. Plasma TVs dropped \$250, a decline of more than 9 percent, to an average retail price of \$2,467. Other flat panel products like the 20-inch LCD TV and the 17-inch LCD PC monitor also saw their most significant price declines. Both of these categories benefited from growth in supply and resulting cost declines that have rippled through the supply chain down to the retail buyer. Twenty-inch LCD TVs hit an all-time low of \$857, nearly \$200 below their average price at the start of the year. Seventeen-inch LCD monitors, whose sales have been weak for the past year, saw prices fall 4 percent versus 2003 to a new low of \$445. Digital cameras fell 31 percent from 2003, and DVD home recorders were down 34 percent. The average 3 mega-pixel digital camera now sells for \$207 and poised to be under \$200. DVD recorders are down 51 percent, almost \$350, from their price in 2003 and have fallen further and faster than any item in the Price Watch basket.

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