

More authors than readers

The number of Americans who write and publish a book in a given year may exceed the number who read one, according to a startling projection of book industry trends, made by a provider of print-on-demand books. The Lulu.com study pinpoints 2052 as the year when “Authorgeddon” will arrive—and the number of new books published in America will first surpass the number of Americans who read even a single book each year. “It may sound ridiculous,” concedes Bob Young, CEO of Lulu, “but the latest industry figures show yet another steep rise in the number of Americans publishing a book each year, alongside a continuing fall in the numbers reading them. All we’ve done is to extrapolate these two, well-documented trends.”

R.R. Bowker, North America’s leading source of bibliographic data, said that the number of books published in America last year hit a record 195,000—a 14 percent increase on the previous high of nearly 175,000, recorded the year earlier. The average annual rise over the last three years has been 14.6 percent. The Bowker announcement itself follows a survey published last year by the National Endowment for the Arts, which showed that the percentage of Americans who read books has steadily declined over the last 20 years. Only 57 percent—164 million Americans—of the U.S. population now read even one book a year; a drop of 4 percent in a decade. A simple extrapolation of current trends shows that by the year 2052 148.4 million books will be published in the U.S., while just 129.4 million Americans will actually read a book. 19 million new books, in other words, will not find a single reader, perhaps including their authors.

The human race as a whole now publishes a book every thirty seconds, according to one recent estimate. Some 100 books a day—over 30,000 a year—are published on Lulu alone, of which most are not even counted in Bowker’s figures. Publishing is seeing the growth of a vast new diversity of niche markets, no longer dominated by a handful of voices filtered and approved by publishers.

We are losing readers. A new generation of tech-savvy young people are getting their information in ways that threaten traditional media, according to a study commissioned by the Carnegie Corporation of New York. They

found that just 19 percent of 18-to-34-year-olds read a newspaper daily, 17 percent read it once a month or less—and 12 percent said they “never” read a paper to get their news. 44 percent of young people visited a Web news portal every day, and 37 percent watch local TV news daily. The 25-to-34-year-olds in the surveyed group said the Internet is as trustworthy as newspapers. More than half of the heaviest newspaper users among young adults predicted that in the next three years they will be accessing the Web more for news.

The National Endowment for the Arts in 1982 found that almost 57 percent of adult Americans regularly read literature—novels, short stories, plays, and poetry. The figure has since fallen to 46.7 percent, translating into a loss of 20 million potential readers. Reading requires sustained, focused attention, applying the powers of memory and imagination. If the United States is to compete in the world economy in the 21st century, it is not going to be with cheap labor and cheap raw materials. The continued economic and social success of any society depends on the innovation and creativity of its population. Readers, as the study also found, are likely to be involved in volunteer and charity work. But, some people are opting out and insulating themselves from the world. Reading forces you to think; watching is a means to escape.

Andy Warhol said we will all be famous for 15 minutes; with on-demand printing, we may all be authors as well. From cook books to family histories to photo albums to the great American novel, digital printing has made it possible for anyone to be their own publisher. Amazon.com recently acquired BookSurge, a book printing business that specializes in so-called on-demand printing. Someday Amazon.com orders could be custom printed.

DID YOU HEAR?

- Daily U.S. newspaper circulation took its biggest fall in a decade, dropping 1.9 percent in a six-month period. That was the largest decline since 1995-1996, when circulation fell 2.1 percent (Audit Bureau of Circulation).
- Over half of the 8 billion digital images printed in the U.S. last year rolled off home printers. The average cost of a 4-by-6 photo printed at home was 36 cents; prints ordered via a Web site are 12-17 cents (InfoTrends/CAPV).
- 2004 print shipments experienced their strongest rebound in five years. In 2004, overall shipments increased 2.8 percent vs. 2003. Sales in offset increased 2.3 percent; digital increased 4.8 percent; and ancillary services were up 3.6 percent (Dr. Ron Davis, PIA/GATF).
- After three years of regular Internet use, consumers spend about two hours less per week reading newspapers, compared to those who don’t use the Internet. Consumers in their 30s and 40s are relying on the Internet for information (USC Annenberg School Center for the Digital Future).
- Online ad spending will reach \$26 Billion in 2010 (Forrester).
- Shipments of color printers of all kinds tripled between 2001 and 2004 (Gartner in WSJ).
- The cost of a gigabyte of storage has dropped from \$1,000 in 1994 to \$1 in 2004—and will drop to under 8 cents by 2008 (IDC in Forbes).
- Ad budgets will see 24 percent applied to the Internet, 16 percent to direct mail, 15 percent to TV, 12 percent to magazines, 9 percent to newspapers, 5 percent to print/online classifieds, 3 percent to radio, and 16 percent to other (Forrester).

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SHORT SHORTS

Microsoft Chairman Bill Gates said that businesses need to do more to help their employees sort through the ever-growing flood of information that threatens to become a drain on productivity. He said new programs will help businesses be more competitive in the "new world of work," where it will be easier to set priorities, understand important data and spend less time organizing information. Some of the features in development include virtual "workspaces" that let people involved in the same project update documents and keep track of e-mails they send each other about their work. Today's set of tools don't support the new interactive world out of which kids are coming.

Google can search 8 billion Web pages but that's a drop in the bucket compared with the knowledge stored in the world's libraries. Google plans to scan the complete texts of millions of books from major libraries around the globe and make them searchable online. Google's library project will create digital versions of whatever libraries hand over—including copyrighted books. Harvard, Stanford, Oxford, Michigan, and the New York Public Library are providing the first of millions of books. The goal is to gather as much of the world's knowledge as possible and make it accessible. For public domain books, users will be able to see full text. For copyrighted books, viewing will be "only a few sentences." Google scanners are able to process 5,000 books a day. One publisher said that by digitizing libraries on servers, Google could "Napsterize" the written word.

Toshiba announced a triple-layer HD DVD-ROM (read-only) disc with a data capacity of 45 gigabytes, 50 percent more than the 30-gigabyte dual-layer HD DVD-ROM disc, and able to record twelve hours of high-definition movies on a single disc. These discs are already approved and standardized at the DVD Forum. It allows consumers to view DVD content on standard DVD players and, after purchasing an HD DVD player, to enjoy high definition content on the HD DVD layer from the same disc. Content providers can provide the same content in two formats, or use the HD DVD layer for a feature movie and the DVD layer to store promotional videos or audio content.

The printed page could become digitally interactive, giving periodical advertisers the potential to electronically measure readership of individual pages within magazines, Mediamark Research Inc. (MRI) will begin testing a new technology that can print an interactive microchip on a page. Using a process originally developed by the MIT Media Lab, MRI will test whether RFID tags printed on magazine pages can be used for magazine audience measurement. The initiative is between MRI and TagSense, a Cambridge, MA-based company that was incubated at the Media Lab, which has developed a means of relaying data between printed RFID tags and electronic "readers." Those readers could be stationed in retail outlets that sell magazines. MRI, a magazine audience research firm, said it could implement a market trial in as little as 18 months.

What is the bandwidth of a bicycle?

Bicycle messengers once clogged downtown urban traffic to deliver court papers and business documents. Cyclists wove in and out of traffic, jumping curbs and nudging sidewalk pedestrians. But high-speed Internet connections allow many documents to be e-mailed, and this is making cyclists extinct in the race for delivery of urgently-needed material. In recent years, many courier companies from New York to California have been scaling back on bicycle messengers, those Evel Knievels with wheels who have long been ubiquitous on city streets. Bike messengers survived the fax revolution and proponents say they'll survive broadband Internet as well. There's still stuff that needs to be hand-delivered.

In Chicago, Velocity has half as many bicycle messengers as it did in 1999, when there were once about two dozen riders. New York is still the nation's bicycle messenger capital, with about 1,000 messengers—down from ten times that number. The number of bicycle messengers at Breakaway Courier dropped from 100 to 40. New York Minute has 15 riders, half of what it had a couple of years ago. New York's Urban Express, which has 250 bicycle messengers, reports that bicycle work has been flat while vehicle deliveries are growing. In an age of PDF and JPEG attachments, there is less and less physical material to be delivered.

SIGNS OF DATA INTELLIGENCE IN THE UNIVERSE

Each day marketers are gathering terabytes of data from many sources and trying diligently to identify what is relevant and actionable. The growing trend toward digitally delivered and measured media allows for analysis to be based upon universes, moving away from projections based on samples. Marketers must prove value, not simply assume it.

As the first wave of Internet marketing blossomed in the late 1990s and the marketing community came to realize that online marketing is a direct marketer's dream come true, clients and agencies alike began to invest heavily in robust data collection, analytics tools, and supporting staff. The term ROI became a staple in the online marketing vernacular, and with this trend, the ad community began to divide into online vs. offline. Online was embraced by direct marketers while offline attracted the brand gurus. In the early days, the running joke for online campaigns which did not garner respectable click-throughs was "It was a branding effort..." The myth that "if a medium is measurable and trackable, it's a direct marketing channel," is now being dispelled through the dramatic increase in digital media coupled with the continued advancements in technology.

As the second wave of Internet marketing evolves, savvy online advertisers are beginning to realize the positive effects of the medium on their brand. Better yet, these effects are now becoming measurable as tools continue to grow in sophistication. We can now see the tangible affects of brand awareness resulting from what was once considered a purely direct response medium which was focused on cost per click and/or cost per acquisition.

Most marketers are now being asked to scrutinize their entire marketing budget on the basis of return on investment. This is not just for direct marketing programs, but for all marketing programs. This is great news as technology continues to evolve and our ability to measure more effectively becomes better and better. Thus, agencies and their clients are being asked to quantify the brand effects of their direct response media and, in some cases, vice versa. This is becoming a reality as the age of data intelligence is upon us. Those marketers who do not embrace data analysis actively will soon fall by the wayside.

The future is here and it's digital

As media continues to move to digital deployment—e.g. television and DVRs, satellite radio, increasing rise in mobile data use, digital billboards, etc.—the flexibility of messaging and targeting increases dramatically. Equally important, the abilities to track, measure, and

analyze user behavior, grow immensely as the industry searches for a means to understand the effects across media channels. Some industry experts predict that by 2007, half of all media will be consumed digitally, and by 2020, this figure will reach 80 percent of all media. This number is promising and staggering at the same time. More and more data will be available for analysis, and marketers will only attain more and more insight into how users consume and respond to media across channels. Online digital media produces gigabytes of data each day for an individual advertiser, and

this is projected to grow five-fold over the next several years. In order to prepare for this onslaught of data, marketers must prepare today by getting their houses in order to sift through and take advantage of the vast amounts of data that are available today. Identification of what is relevant within these gigabytes of data is the first step, but that is half of the battle; building and managing the tools and the organization to read this data is the other. "The future is bright for those who are organizing around data today," said Barry W. Peters, Vice President, Data Intelligence, Carat.

Status of document communications

Consultants at Doculabs and faculty at the University of Illinois at Chicago collaborated with The Electronic Document Systems Foundation (EDSF) and conducted a study in the first quarter of 2005 to gain an in-depth understanding of key issues and trends in the document communications industry. This study focused on buyers in the market and identified two primary themes in the response data. First, organizations are striving to improve the timeliness and personalization of paper-based communications while at the same time controlling costs. Second, organizations are successfully pursuing methods for digital document delivery, and their expectations indicate a growing commitment to this form of communication.

1. Budgets have increased moderately in 2005 and are likely to increase significantly due to postal rate increases in 2006. Print operations are very likely to be under great scrutiny to reduce costs to offset this increase.

2. Timeliness, cost, and personalization of communications remain the top three concerns for buyers in the market. All three requirements support the transition to digital delivery.

3. The use of color for transactional applications such as statements, bills, and correspondence remains limited to niche applications. While 88 percent of organizations use some form of digital color in their production, 47 percent reported that less than 1 percent of their volumes employ digital color.

4. Outsourcing of print operations has not grown, nor is it likely to grow until financial incentives become more significant.

5. Approximately 75 percent of the firms surveyed expect growth in electronic document communications.

6. Exclusive use of digital documents has reached a customer acceptance rate of 20 percent, with another 30 percent requiring both paper and electronic documents.

7. Firms are employing a variety of digital communication methods, ranging from e-mail to portals and downloadable e-forms.

8. The further use of digital document delivery is being inhibited by several factors, including privacy, security, and regulatory concerns.

9. Of the firms surveyed, 77 percent have no formal budget for electronic document delivery, and only 28 percent have a single point of management responsibility for their digital document delivery strategies.

Thus, we find the industry struggling with the need to reduce paper-based communication costs, while at the same time increasing investment to support electronic delivery. Taken together, these two dynamics are likely to increase overall communications cost in the short term, but over the long term their effects remain unknown as organizations strive to find the appropriate balance between paper and electronic communications. For the complete study, go to www.EDSF.org.

Firms having no such plan
12%

Firms using data-driven color
88%



From the Doculabs/
University of Illinois
Chicago EDSF Study

Atomic batteries

Batteries now have a nuclear option. A new type of battery based on the radioactive decay of nuclear material could last a dozen years without a charge, scientists announced. The longevity would make the battery ideal for use in pacemakers or other surgically implanted devices. The technology is called betavoltaics and has been licensed by BetaBatt Inc. It uses a silicon wafer to capture electrons emitted by a radioactive gas, tritium. The process is similar to converting sunlight into electricity in a solar panel. Such devices "don't consume much power," said University of Rochester electrical engineer Philippe Fauchet. This new technology could finally bring about the elimination of battery replacement.

Researchers have investigated converting simple nuclear decay into usable energy, but the yields were too low. Fauchet's team took the flat silicon surface, where the electrons are captured and converted to a current, and turned it into a three-dimensional surface by adding deep pits. Each pit is about one micron wide—four ten-thousandths of an inch—and more than 40 microns deep. Tritium is a radioactive form of hydrogen. Mixed with chemicals that emit light, it is presently used to illuminate exit signs without electricity. These are in use today.

Tritium emits low energy particles that are shielded with very thin materials, even a sheet of paper. Hermetically-sealed, metallic cases will encapsulate the entire radioactive energy source, just like a normal battery contains its chemical source so it cannot escape. And you thought taking a cigarette lighter on a plane was difficult.

Organic RFIDs

The holy grail of Radio Frequency Identification (RFID) tags that cost a penny or less is still elusive. Some of the biggest as well as the newest names in American business are involved in the great RFID organic tag race. At NCR, researchers are producing inlaid RFID tags on a roll of paper. The company is exploring what kinds of conductive inks are best in printed RFID labels, what the best processes of manufacturing them are, and whether the organic tags can actually replace silicon-based circuits in the future.

Several leaps in technology are still needed to get the technology to the point where it costs one cent per tag, or less, and where it can be used on individual items for inventory tracking and management. Prices for conventional silicon chips can be as high as 66 cents, but a Colorado start-up called OrganicID has developed a prototype of printable, organic RFID tags and is working with International Paper for tags that cost less than 5 cents each, one step closer to a tag that will one day be incorporated into packages more easily and efficiently than silicon tags. The technology developed a tag that does not use a battery but obtains its energy from the electro-magnetic field generated by a carrier signal emitted by a reader. Energy is transferred inductively. These paper-based transistors are also known by the name of plastic electronics, especially if they use conductive polymers, or organic molecules on a plastic substrate. Companies active in the plastic electronics field include 3M, AMD, Dow Chemical, Dow Corning, DuPont, and others. Bar codes cost almost nothing to print out on paper now.

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More authors than readers

*Status of document
communications*

Atomic batteries