The ultimate marketing machine

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Thanks to the power of the internet, advertising is becoming less wasteful and its value more measurable

IN TERMS of efficiency, if not size, the advertising industry is only now starting to grow out of its century-long infancy, which might be called “the Wanamaker era”. It was John Wanamaker, a devoutly Christian merchant from Philadelphia, who in the 1870s not only invented department stores and price tags (to eliminate haggling, since everybody should be equal before God and price), but also became the first modern advertiser when he bought space in newspapers to promote his stores. He went about it in a Christian way, neither advertising on Sundays nor fibbing (thus minting the concept of “truth in advertising”). And, with his precise business mind, he expounded a witticism that has ever since seemed like an economic law: “Half the money I spend on advertising is wasted,” he said. “The trouble is, I don't know which half.”

Wanamaker's wasted half is not entirely proverbial. The worldwide advertising industry is likely to be worth $428 billion in revenues this year, according to ZenithOptimedia, a market-research firm. Greg Stuart, the author of a forthcoming book on the industry and the boss of the Interactive Advertising Bureau, a trade association, estimates that advertisers waste—that is, they send messages that reach the wrong audience or none at all—$112 billion a year in America and $220 billion worldwide, or just over half of their total spending. Wanamaker was remarkably accurate.

What Wanamaker could not have foreseen, however, was the internet. A bevy of entrepreneurial firms—from Google, the world's most valuable online advertising agency
disguised as a web-search engine, to tiny Silicon Valley upstarts, many of them only months old—are now selling advertisers new tools to reduce waste. These come in many exotic forms, but they have one thing in common: a desire to replace the old approach to advertising, in which advertisers pay for the privilege of “exposing” a theoretical audience to their message, with one in which advertisers pay only for real and measurable actions by consumers, such as clicking on a web link, sharing a video, placing a call, printing a coupon or buying something.

Rishad Tobaccowala, the “chief innovation officer” of Publicis, one of the world's biggest advertising groups, and boss of Denuo, a Chicago-based unit within Publicis with the job of probing the limits of new advertising models, likens traditional Wanamaker-era advertising to “an atom bomb dropped on a big city.” The best example is the 30-second spot on broadcast television. An independent firm (such as Nielsen, in America) estimates how many television sets are tuned to a given channel at a given time. Advertisers then pay a rate, called CPM (cost per thousand), for the right to expose the implied audience to their spot. If Nielsen estimates that, say, 1 million people (“the city”) are watching a show, an advertiser paying a CPM of $20 would fork out $20,000 for his commercial (“the atom bomb”).

**Gone for a brew**

The problem is obvious. The television room may be empty. Its owners may have gone to the kitchen to make a cup of tea or to the toilet. They may have switched channels during the commercial break, be napping or talking on the telephone. The viewer may be a teenage girl, even though the advertisement promotes Viagra. It might even be a TiVo or other such device that records the show so that the owner can watch it later and skip through the commercials. Parks Associates, a consumer-technology consultancy, estimates that 10 million American households already have a digital video recorder.

“Segmentation”, an advertising trend during the past two decades tied to fragmentation in the media, represents only a cosmetic change, thinks Mr Tobaccowala. Advertisers airing a spot on a niche channel on cable television, for example, might be able to make more educated guesses about the audience (in their 30s, gay and affluent, say), but they are still paying a CPM rate in order blindly to cast a message in a general direction. Instead of atom bombs on cities, says Mr Tobaccowala, segmentation is at best “dropping conventional bombs on villages”. The collateral damage is still considerable.

By contrast, the new advertising models based on internet technologies amount to innovation. Instead of bombs, says Mr Tobaccowala, advertisers now “make lots of spearheads and then get people to impale themselves.” The idea is based on consumers themselves taking the initiative by showing up voluntarily and interacting with what they find online.

In its simplest form, this involves querying a search engine with keywords (“used cars”, say), then scanning the search results as well as the sponsored links from advertisers, and then clicking on one such link. In effect, the consumer has expressed an intention twice
(first with his query, then with his click). The average cost to an advertiser from one such combination is 50 cents, which corresponds to a CPM of $500; by contrast, the average CPM in traditional (“exposure”) media is $20. A consumer's action, in other words, is 25 times as valuable as his exposure.

The person who deserves more credit than anybody else for this insight is Bill Gross, an internet entrepreneur with a kinetic mind and frenetic speech who in 1996 started Idealab, a sort of factory for inventions. One of the companies to come out of his factory was GoTo.com, later renamed Overture, which pioneered the market for “paid search” or “pay-per-click” advertising. In 2001 Mr Gross ran into Sergey Brin and Larry Page, the young co-founders of Google, a search engine that was just then becoming popular, but still had no way of making money. He offered them a partnership or merger, but Messrs Brin and Page were purist at the time about not diluting the integrity of their search results with commercialism and they turned him down.

Within a year, however, Messrs Brin and Page changed their minds and came up with AdWords, a system based on Overture's idea of putting advertising links next to relevant search results and charging only for clicks (but with the added twist that advertisers could bid for keywords in an online auction). Google soon added AdSense, a system that goes beyond search-results pages and places “sponsored” (i.e., advertising) links on the web pages of newspapers and other publishers that sign up to be part of Google's network. Like AdWords, these AdSense advertisements are “contextual”—relevant to the web page's content—and the advertiser pays for them only when a web surfer clicks.

Together, AdWords and AdSense produced $6.1 billion in revenues for Google last year.

Because this advertising model is so lucrative, all internet portals want to catch up with Google. In 2003 Yahoo!, the largest media property on the web, bought Overture from Mr Gross for $1.6 billion. Yahoo! then dropped the technology it had been licensing from Google. Then Microsoft, which owns MSN, another large internet portal, built adCenter, its version of a “monetisation engine”, which has now replaced Yahoo! as the advertising system for searches on MSN. In addition, eBay, the largest auction site on the web, has a version called AdContext. Pay-per-click advertising is not without its problems—especially “click fraud”, the practice of generating bogus clicks for devious reasons, such as making a rival advertiser pay for nothing. Nonetheless, pay-per-click remains much more efficient than traditional marketing for many advertisers. It is the fastest-growing segment of the online advertising market (see chart).
Some companies are already exploring other methods of charging advertisers for consumers' actions. Mike Hogan, the boss of ZiXXo, a start-up near San Francisco, says that he is “disrupting the existing coupon system”, dominated by companies such as Valpak and Valassis in America. Some 335 billion coupons were distributed in America last year—priced, like other traditional media, in CPM—but only 4.5 billion were redeemed, which amounts to a “Wanamaker waste” of almost 99%. ZiXXo, by contrast, lets advertisers issue coupons online and places them on search results, online maps and other such places, but charges advertisers only when a consumer prints one out (50 cents per coupon from next year), thus expressing an intent to redeem it.

As ZiXXo is pioneering “pay-per-print” advertising, Ingenio, another San Francisco firm, is betting on “pay-per-call”. Instead of coupons, it places toll-free telephone numbers on local-search pages—its biggest partner is AOL—and charges advertisers only when they receive a live call from a consumer. This is especially popular among accountants, lawyers, plumbers and other service providers who find it easier to close a deal on the telephone. EBay is planning to sell pay-per-call advertising on a larger scale, by placing little buttons from Skype, an internet-telephony firm it bought last year, on its own web pages and perhaps those of others, so that consumers can talk with a seller after just a single click.

Meanwhile, Mr Gross, almost famous from his first innovation (and not at all bitter that Google got most of the credit), is once again busy pursuing what he considers the “Holy Grail” of advertising—the complete elimination of Wanamaker waste. He calls this cost-per-action, or CPA, although he means cost-per-sale, and says that it “just makes too much sense” not to catch on. His start-up this time is called Snap.com, a small search engine. An airline, say, that advertises on Snap's search results would pay not when a consumer clicks on its link but only when he buys a ticket. Google, which is researching almost all conceivable advertising methods, also has plans for CPA. Its new Google Checkout, an online payments system set up to rival eBay's PayPal, will allow Google to know more about how many users who click on one of its advertisements subsequently go on to complete a purchase.
Branded

If the internet enables such snazzy performance-based advertising methods, it is also sparking a renaissance in branded advertising. Some products—such as mortgages—might conceivably be sold entirely through performance-based marketing one day, says Mr Stuart at the Interactive Advertising Bureau, but many other products—such as cars, cosmetics and alcohol—will probably always require branding as well. Even when consumers start their shopping research on a search engine, they still see several competing sponsored links, and may be swayed by their previous brand exposure in deciding which one of these links to click on. And in the “offline” world, brands are still “the ultimate navigation device,” says Mr Tobaccowala at Denuo, and often determine which door a tired traveller far away from home walks through.

Brand advertising is inherently about leaving an impression on a consumer, and thus about some sort of exposure. On the internet, however, an exposure can also be tied to an action by a consumer, and these actions can be counted, tracked and analysed in ways that exposure in the established mass media cannot. Consumers also tend to be more alert on the internet. Whereas people might watch a television show in a semi-comatose state of mind and at obtuse angles on their couches, consumers typically surf the web leaning forward while “paying attention to the screen,” says Mr Stuart.

A good example is video games, which increasingly take place online and involve thousands or millions of other players. Companies such as Massive and Double Fusion are already placing two-dimensional brand advertisements into games. A player moving through the streets of New York to kill something or other might see a DHL truck or a billboard. “But the future is intelligent three-dimensional ads” and “ads with behaviour,” says Jonathan Epstein, Double Fusion's boss. For instance, his technology will soon allow Coca-Cola to place a Coke can into a game, where it fizzes when a player walks by and might give him certain powers if he picks it up. If a character uses a mobile phone inside a game, the technology can swap the brand and model of the phone depending on which country the player is in. But the most important aspect of the technology, says Mr Epstein, is that it will track exactly how long the player uses the phone, thus leaving no doubt about whether an “impression” had indeed been made.

Propagating the message

That same transparency is now coming to “viral” marketing. Kontraband, a firm in London, takes funny, bizarre, conspiratorial or otherwise interesting video clips from its clients and places them on its own site and on popular video-sharing sites such as YouTube.com or Google Video. The hope in viral marketing is to create something that is so much fun that it will propagate by itself, as people e-mail it to each other or put the web link on their blogs. This means that a pure “cost-per-feed” system is out of the question, says Richard Spalding, Kontraband's co-founder, since a successful viral campaign “that gets out of hand and is watched by millions would run the client out of business.” So Kontraband charges a flat fee based on a hoped-for audience, leaving the
client with the economic upside if the real audience turns out to be larger. The important point, says Mr Spalding, is once again that the “sprites” (ie, bits of software) inside the video let Kontraband track exactly how many times a video is viewed and where, so that clients can see neat pie charts that summarise their success.

Understandably, this strange and thrilling online world can be unsettling to the old hands of the advertising industry, whether they are marketing bosses for advertisers or intermediaries at the agencies. “All of us have been classically trained, and now we're in a jazz age,” says Mr Tobaccowala. Advertisers and their agents, he recalls, have already changed their minds about the internet twice. During the technology boom of the late 1990s, he says, the general outcry was, “Oh my god, I need a dotcom unit.” When the boom turned to bust at the beginning of this decade, he says, there was a sigh of relief (“See, the internet is not for real.”), and it suddenly seemed as though only those who did not “get it” still had jobs.

This was a mistake, says Mr Tobaccowala, since the sceptics confused the performance of the NASDAQ and the fate of individual dotcoms with genuine changes in consumer behaviour. In the consumer-driven market for classified advertising, for instance, ordinary people instinctively grasped the efficiencies of online sites such as Craigslist, thus causing a drop in classified revenues at newspapers. The large advertisers stayed more conservative, however, which may explain why the internet-advertising market is still disproportionately small. The Online Publishers Association, a trade group, estimates that all web advertising in America came to about 6% of total advertising expenditures last year, even though consumers spent 23% of their media time online.

Now, however, chief executives are taking trips to Silicon Valley, often without their “chief marketing officers”, to educate themselves. And what they hear impresses them. Tim Armstrong, Google's advertising boss in North America, preaches to his clients a “notion of asset management” for their products that “shocks” them. Traditionally, he says, most firms would advertise only 5% to 10% of their wares—the blockbusters—in the mass media to publicise their brand, hoping that it shines a halo on the remainder of their products. Now, however, “companies market each individual product in that big digital stream,” says Mr Armstrong, from the best seller to the tiniest toothbrush. This is called exploiting the economics of the “long tail”.

They do this, first, because the internet, in effect, eliminates scarcity in the medium. There are as many web pages for advertisers as there are keywords that can be typed into a search engine, situations that game players might find themselves in, and so forth. Each one comes with its own context, and almost every context suits some product. The second reason is that if you can track the success of advertising, especially if you can follow sales leads, then marketing ceases to be just a cost-centre, with an arbitrary budget allocated to it. Instead, advertising becomes a variable cost of production that measurably results in making more profit.

This often leads to more subtle changes in the way that advertisers think about their craft, says Mr Armstrong. In the traditional media, he says, advertisers are always “trying to
block the stream of information to the user” in order to “blast their message” to him. That quickly gets annoying and turns consumers off. In American prime-time television, advertising interruptions added up to 18 minutes an hour last year, up from 13 minutes an hour in 1992, according to Parks Associates. On the internet, by contrast, advertisers have no choice but to “go with the user,” says Mr Armstrong, and “the information coming back from the users is more important than the messages going out.”

For consumers this may turn out to be the biggest change. The kids in “Generation Y”, “echo-boomers” and “millennials”—young people who tend to be adept at using media, constantly online and sceptical—are increasingly immune to the clichés of prime-time television and radio and mentally tune out these nuisances. Online, however, they may accept advertising, if it is unobtrusive, relevant and fun. Insofar as they took some action to invite the advertisement, they may even find it useful. And this, aptly enough, is a consumer reaction that John Wanamaker would have expected all along.
 mortality of the salesman

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Online car sales are taking off

IF THERE was ever an industry vulnerable to technological change, it would have to be selling cars in America. For decades a franchise network made up of thousands of dealers has peddled ordinary cars as though they were exotic goods in a Moroccan souk. Each dealer seems to have his own opaque pricing scheme, consumers have to endure endless haggling and the financing is murky at best. Small wonder, then, that the shifty car salesman has become such a stereotype.

A decade ago a few brave souls tried to use the emerging power of the internet to modernise this fragmented and frustrating business. Scott Painter, a Californian entrepreneur, founded CarsDirect in an attempt to sell vehicles direct to consumers online. But the business failed to work as he had hoped, and he eventually left the company. Jac Nasser, when he was still running Ford, also tried to bypass his own dealers and sell cars on the internet. He even sued, but the Austin District Court issued a curious ruling against Ford in 2000, stating that: “The plaintiff is prohibited from selling motor vehicles to consumers by mail, phone calls, leafleting, skywriting, or drum signals, as well as on a plane, on a train, in a house, or with a mouse.”

Hope springs eternal, at least where the internet is concerned. This week Mr Painter is launching Zag, his latest attempt to modernise automobile retailing using the internet. His first big customer is Capital One, a financial giant that is one of the country’s biggest providers of car loans. Meanwhile, AutoNation, the country’s largest car retailer (with over 300 dealerships), is launching Smart Choice, its own internet marketing-scheme, in June. And rumours are swirling that Amazon and Chase bank are (separately) about to enter the online car-sales business.

So is the time finally ripe? Glenn Mercer of McKinsey, a consultancy, believes that internet sales efforts, even fixed-price schemes, will not save customers much money because the internet firms by law cannot buy cars directly from manufacturers; they must get them from dealers. Brian Reed of Capital One retorts: “It's true, we may not offer the lowest price—but we will offer a fair price with a lot less pain.”

But the pain is not always so easy to escape. Visit many online sites to research a car, and they will sell your name immediately to local dealerships which will then harass you in the old-fashioned way. That is hardly a revolution, as Mr Painter acknowledges: “Our original vision for CarsDirect was that we would wipe out the dealer. Nope: it ended up as a lead-generation service.”

Still, there are reasons to think that conditions may finally be favouring online sales. J.D. Power and Associates, a research firm, reckons that two-thirds of new car
customers use the internet for research, up from a quarter in 1998. AutoNation reports that car sales originating on the internet have increased from 14% of its total in 2002 to about a quarter last year.

The rise of credit unions and affinity groups like the American Automobile Association and Costco (a cut-price retailer) is also modernising car retailing. In the past, such groups would refer their members to certain dealers, in return for cash and the promise of a lower price. The members' discount often failed to materialise, in reality, but the groups had no way to police what dealers did. But with the latest inventory-monitoring software integrated into portals such as Capital One’s new DriveOne programme, clubs can now guarantee a fixed price for a car chosen by a member and check that the dealer sells it at the promised price.

Because price transparency is squeezing margins, argues Sid DeBoer of Lithia, one of the country’s biggest car retailers, dealers are now desperate to find ways that the internet can help them. He is convinced that online sales of new cars will soar from nothing to a quarter of Lithia's total within a decade. Consolidation among dealers, led by Lithia and AutoNation, also supports a move away from haggling to fixed pricing, since bigger firms are in a much better position to enforce price discipline.

So will all this mean the death of the salesman? Do not count on it says Mike Jackson, the boss of AutoNation. His firm has already cut in half the time taken to buy a car, and it wants to cut it in half again by automating various bits of paperwork. But Mr Jackson is convinced that consumers will always want to kick the tyres on their new car, before they sign on the dotted line: “We'll put the distasteful parts online, and leave the fun part—it's like going to a candy store.”
Borrowing and lending get personal

THE internet age was supposed to herald hard times for the middleman. Customers, so it was said, would flock to the web to buy products and services faster, cheaper and more transparently than in shops or through intermediaries. Disintermediation has indeed come about, as any out-of-work travel agent or bookseller will tell you. Yet retail bankers—the middlemen between savers and borrowers—have been surprisingly untouched.

Enter Prosper Marketplace, a Californian company that matches people who need small loans with others who have extra cash to lend. Prosper launched its website on February 6th. This week, the number of active bids for loans was running at around 200. Lenders have put up some $750,000.

Such “person-to-person” lending is not entirely new. Zopa, a British venture that also matches borrowers with willing lenders, opened for business last March. It now boasts 50,000 members, of whom 15% are actively trying to borrow or lend money at any given time. The company does not publish the volume of loans.

On both Zopa's and Prosper's sites, borrowers, who first undergo identity and credit checks, post bids specifying how much they wish to borrow and the highest interest rate they are willing to pay. Lenders bid the lowest rate they will accept for a given credit profile (based on credit scores, debt-to-income ratios and other metrics) and period. To diversify risk, most loans are made on a “one-to-many” basis, meaning a lender's loan of, say, $5,000 would be spread across lots of borrowers. Zopa's lenders' money is strewn among at least 50 borrowers; Prosper's members can take on entire loans if they like.

The companies manage repayments and hire debt collectors should a borrower default. They make their money by charging borrowers 1% of the amount of the loan. Prosper also charges delinquency fees and levies a servicing charge on lenders. Zopa takes commissions on repayment insurance.

Zopa and Prosper say that lenders can earn a higher rate than they would from a savings account and borrowers pay less than on a credit card. According to Richard Duvall, Zopa's chief executive, interest rates on Zopa have averaged 7% before bad debts (of which there have so far been none). That compares with the 4.5% paid on a good British savings account and the 15% typically charged on credit-card debts.

There is a psychic pay-off, too. Users on Zopa have said that they like lending and borrowing within a community of “real” people, rather than through a faceless bank. Mr Duvall notes that affinity credit cards (ie, those linked to an activity or
membership) tend to have lower default rates than traditional credit cards. “The sense of community matters,” he says.

Prosper takes this idea a step further, by allowing customers to form groups of borrowers with similar interests or backgrounds—similar to social networking sites such as *MySpace.com* or *Friendster*. Groups include one made up of Harvard Business School alumni, and others for atheists and agnostics. Groups with reputations for repaying loans on time can expect to get cheaper interest rates.

Chris Larsen, Prosper’s founder, believes that these groups will help his company cut the two biggest costs encountered by credit-card companies: customer acquisition (often requiring pricey direct-mail or advertising campaigns) and defaults. Because group leaders earn money as their members repay loans, they have an incentive to recruit new members—in theory, doing Prosper's marketing for it. And the hope is that group members will be less prone to default because doing so would lower the credit rating of their group as a whole. Moreover, while borrowers can remain anonymous to the larger community, group leaders will know who has defaulted, so there is a “shame” factor. “It only takes lowering default rates by a fraction of a percentage point to make a difference,” says Mr Larsen.

Catherine Graeber of Forrester Research, a consultancy, is intrigued by the idea, particularly because it might attract 18- to 28-year-olds who need credit and spend hours logged on to social networking sites. These people, says Forrester, are much less likely than their parents to care about brands when choosing a bank. They are also routinely ignored by banks.

Still, potential pitfalls remain. One is that Prospect's group concept suffers from an inherent conflict: bigger groups mean more borrowers, but less cohesion, weakening the shame factor. But perhaps person-to-person finance's biggest difficulty will be to attract enough lenders—particularly once customers start to default, as they surely will. Ms Graeber points out that there is a reason why banks and credit-card companies charge the rates they do. “Unsecured lending has a high default rate,” she says. “What do these companies know that banks don’t?”
Online shoppers give parcels firms a new lease of life

THINGS must be going well in the parcels business. At $2.5m for a 30-second TV commercial during last weekend's Super Bowl, an ad from FedEx was the one many Americans found the most entertaining. It showed a caveman trying to use a pterodactyl for an express delivery, only to watch it be gobbled up on take-off by a tyrannosaur. What did the world do before FedEx, the ad inquired? It might have asked what on earth FedEx did before the arrival of online retailers, which would themselves be sunk without today's fast and efficient delivery firms.

Consumers and companies continue to flock in droves to the internet to buy and sell things. FedEx reported its busiest period ever last December, when it handled almost 9m packages in a single day. Online retailers also set new records in America. Excluding travel, some $82 billion was spent last year buying things over the internet, 24% more than in 2004, according to comScore Networks, which tracks consumer behaviour. Online sales of clothing, computer software, toys, and home and garden products were all up by more than 30%. And most of this stuff was either posted or delivered by parcel companies.

The boom is global, especially now that more companies are outsourcing production. It is becoming increasingly common for products to be delivered direct from factory to consumer. In one evening just before Christmas, a record 225,000 international express packages were handled by UPS at a giant new air-cargo hub, opened by the American logistics firm at Cologne airport in Germany. “The internet has had a
profound effect on our business,” says David Abney, UPS's international president. UPS now handles more than 14m packages worldwide every day.

It is striking that postal firms—once seen as obsolete because of the emergence of the internet—are now finding salvation from it. People are paying more bills online and sending more e-mails instead of letters, but most post offices are making up for that thanks to e-commerce. After four years of profits, the United States Postal Service has cleared its $11 billion of debt.

Firms such as Amazon and eBay have even helped make Britain's Royal Mail profitable. It needs to be: on January 1st, the Royal Mail lost its 350-year-old monopoly on carrying letters. It will face growing competition from rivals, such as Germany's Deutsche Post, which has expanded vigorously after partial privatisation and now owns DHL, another big international delivery company.

Both post offices and express-delivery firms have developed a range of services to help e-commerce and eBay's traders—who listed a colossal 1.9 billion items for sale last year. Among the most popular services are tracking numbers, which allow people to follow the progress of their deliveries on the internet.

How long will the boom continue? The parcel companies clearly see plenty of growth ahead—they are making big investments in new cargo hubs and aircraft. But in some areas the limits are already being tested. On February 2nd Amazon, the best-known online retailer, announced a 17% increase in sales to almost $3 billion in its busy fourth quarter. But profits fell because of higher shipping costs.

Amazon has been subsidising shipping to help boost its sales. Last year it introduced “Amazon Prime”, which provides free shipping in return for a one-off payment. The tactic is “very expensive”, Amazon's chief executive, Jeff Bezos, told analysts. But, he added, the early signs are that it does at least encourage people to buy more.

Yet internet-only e-tailers such as Amazon are also facing stiffer competition from bricks-and-mortar stores improving their own online offers, including supermarket giants such as Wal-Mart. Some of these also offer “pick-up in-store” options for people buying online but wanting to avoid shipping costs or having to stay at home to take deliveries. Some of the parcels firms have been experimenting with delivering goods to petrol stations, where people can collect packages on their way home. They are also trying to come up with more low-cost services. Convenient, cheaper deliveries will encourage more people to shop online.
Chinese consumers are ganging up on their retailers

ON AN otherwise quiet Friday afternoon in Guangzhou, a city in southern China, 500 shoppers gather outside a Gome electrical superstore in the downtown district. They arrive en masse at the designated time—June 16th at 4pm—that they had previously agreed online. Several hours later, they emerge clutching boxes, having secured 10-30% discounts on cameras, DVD players and flat-screen televisions. “It was great,” says Fairy Zhang. “We just bought an apartment and this way we can afford nice things for it.” The previous weekend, over 100 locals visited Meizhu Central, a well known furniture outlet, to haggle over the prices of kitchen cabinets and dining-room furniture.

Tuangou, or team buying, aims to drive unprecedented bargains by combining the reach of the internet with the power of the mob. It is spreading through China like wildfire. The practice originated in online chat-rooms but has quickly inspired several specialist websites, such as 51tuangou.com and www.teambuy.com.cn. Zhang Wei, who helped to set up teambuy less than six months ago, says the site has 10,000 registered members. The company plans to expand into Beijing and Shanghai.

The first team buyers found each other by accident as they chatted online about buying everything from electronics to cars and even apartments—and realised they could get a better price if they went shopping together. Getting a discount is also a sort of insurance policy against ending up with badly made or fake goods from Chinese shops. Some shoppers just show up at a store unannounced to see if they can bargain their way to a discount, says Chen Shu, a 32-year old from Shanghai: “Sometimes we call the shop, but often we just surprise them. Shopkeepers argue, but in the end they want the business.” Others are using websites like Ms Zhang’s, which work with shops to organise team-buying sessions where discounts are guaranteed without much confrontation.

Although some retailers dislike the practice—foreign luxury-goods groups like LVMH say they insist on fixed prices in China—others hope they can recover lost margins through the extra volume. The Gome store in Guangzhou, for example, closed its doors to normal customers when the team buyers showed up a fortnight ago and gave each of them a goody bag as they left.

Team buying turns haggling, a tradition in China, into an art-form. That such aggressive consumer behaviour has arisen in a country without much of a consumer economy and weak individual rights is less surprising than it might seem. In the countryside there are more and more organised protests against government corruption and dictatorial landlords, with even poor people using technology like the internet and mobile phones to help. Now their urban, middle-class brethren are
adopting their tactics—if only for shopping. However, if China's economy ever slumps, urban consumers could use their organisational skills to confront the government directly. Beijing might be watching the spread of team buying with trepidation.
A new book about entertainment, technology and statistics predicts that popular culture—and the businesses associated with it—will be transformed by the internet.

FOR the past two years in Silicon Valley, the centre of America's technology industry, conference-goers have entertained themselves playing a guessing game: how many times will a speaker mention the phrase “long tail”? It is usually a high number, thanks to the influence of the long-tail theory, which was first developed by Chris Anderson, the editor of Wired magazine, in an article in 2004. Though technologists and bloggers chuckle at how every business presentation now has to have its long-tail section, most are envious of Mr Anderson, whose brainwave quickly became the most fashionable business idea around.
Whether a blockbuster film, a bestselling novel, or a chart-topping rap song, popular culture idolises the hit. Companies devote themselves to creating them because the cost of distribution and the limits of shelf space in physical shops mean that profitability depends on a high volume of sales. But around the beginning of this century a group of internet companies realised that with endless shelves and a national or even international audience online they could offer a huge range of products—and make money at the same time.

The niche, the obscure and the specialist, Mr Anderson argues, will gain ground at the expense of the hit. As evidence, he points to a drop in the number of companies that traditionally calculate their revenue/sales ratio according to the 80/20 rule—where the top fifth of products contribute four-fifths of revenues. Ecast, a San Francisco digital jukebox company, found that 98% of its 10,000 albums sold at least one track every three months. Expressed in the language of statistics, the experiences of Ecast and other companies such as Amazon, an online bookseller, suggest that products down in the long tail of a statistical distribution, added together, can be highly profitable. The internet helps people find their way to relatively obscure material with recommendations and reviews by other people (and for those willing to have their artistic tastes predicted by a piece of software) computer programs which analyse past selections.

Long-tail enthusiasts argue that the whole of culture will benefit, not just commercial enterprises. Television, film and music are such bewitching media in their own right that many people are quite happy to watch and listen to what the mainstream provides. But if individuals have the opportunity to pick better, more ideally suited entertainment from a far wider selection, they will take it, according to the theory of the long tail. Some analysts reckon that entire populations might become happier and wiser once they have access to thousands of documentaries, independent films and sub-genres of every kind of music, instead of being subjected to what Mr Anderson calls the tyranny of lowest-common-denominator fare. That might be taking things a bit far. But the long tail is certainly one of the internet's better gifts to humanity.

Conglomerates, such as Rupert Murdoch's News Corporation, on the other hand, regard the long tail as another swing at them from a dragon-like blogosphere which resents the "mainstream media" or MSM, as bloggers often call it. Lowest-common-denominator hits, after all, are an important part of their business. Like many people connected to the technology industry, Mr Anderson (formerly a journalist for The Economist) clearly relishes the way the internet is challenging traditional media companies. Perhaps because of this, he is a little too dismissive of hits. Some are indeed manufactured and cynical: the music industry bribes radio stations to blitz people with tracks they have picked; book publishers pay retailers for the spot in the window; and Hollywood holds back films from honest reviewers lest a bad write-up spoil an opening. But most hits are popular because they are of high quality. As Mr Anderson's book acknowledges, there is an awful lot of dross in the tail. And the way in which the internet makes it easy for people to share likes and dislikes about entertainment will help hits as well as more obscure material.

Mr Anderson has backed away somewhat from his original article in Wired in which he suggested that the long tail would be a bigger market than the hits. His book says, more cautiously, that “all those niches can potentially add up to a market that is as big as (if not bigger than) the hits.” Perhaps the true effect of unlimited digital
distribution on individual media choices will be even more positive than he imagines. It may be that only the middling, manufactured sort of hit will fall by the wayside: the genuinely popular variety will remain just as powerful. Most hits start somewhere in the long tail and move up; so as content in the tail becomes easier to discover, the hits that emerge from it should also be of higher quality.

One weakness of this otherwise excellent book is that it tries to apply the theory of the long tail to fields far beyond entertainment and e-commerce. Offshoring, for instance, is the long tail of labour, says Mr Anderson, and there is also a long tail of national security, in which a “short head” of state violence has been challenged by niche producers such as gangs and terrorists. In trying to find long tails everywhere, Mr Anderson risks diluting some of his idea's meaning and novelty.

The cover of Mr Anderson's book promises to answer the question: “Why the Future of Business is Selling Less of More”. But his book may alarm as well as help businessmen. Karl Marx once described a communist society in which “nobody has one exclusive sphere of activity but each can become accomplished in any branch he wishes...to hunt in the morning, fish in the afternoon, rear cattle in the evening, criticise after dinner.” Mr Anderson suggests that the long tail is bringing about something similar. The tools of media production—computers, desktop printers, video cameras—are now so widely and cheaply available that a generation of young people are becoming amateur journalists, commentators, film-makers and musicians in their spare time, rather as the philosopher imagined. Amateurs offering their work free of charge will contribute a significant portion of the long tail, so at the very end there will be a “non-monetary economy,” says Mr Anderson. If true, that could prove to be the most fascinating long-tail effect of all.

The Long Tail: Why the Future of Business is Selling Less of More. By Chris Anderson

Hyperion; 238 pages; $24.95.

Random House Business Books; £17.99
Free access to research is proving more expensive than hoped. But it is spreading, nevertheless

PUBLISH or perish runs the adage. The publication of research is the bedrock of scientific careers and the foundation of grant applications. But for many years people have questioned the system's fairness.

The normal mechanism is that scientists offer the fruits of their research—often bankrolled by the taxpayer—for nothing to publishers. Those publishers then charge money to people who wish to read their journals. Publishers have been making handsome profits from this arrangement. But change is afoot. Open-access publishing, in which papers are freely available immediately upon publication, is sweeping the dusty corridors. The catch is that the sponsors of research will have to fork out more money to pay for it.

Opening up?

The new fashion is to be found on both sides of the Atlantic. In America John Cornyn, a Republican senator from Texas, and Joe Lieberman, a Democrat senator from
Connecticut, recently introduced a bill that seeks to compel all federal government agencies “to develop public-access policies relating to research conducted by employees of that agency or from funds administered by that agency”. If it is passed, every American government outfit that commissions more than $100m-worth of research a year will have to make the results free to all-comers as soon as they are accepted for publication.

America’s biggest sponsor of medical research, the National Institutes of Health, has already thrown its weight behind such a move. For the past year it has strongly encouraged the recipients of its grants to make their results available on a free archive, called PubMed Central, as soon as they are published elsewhere.

In Britain, meanwhile, the Wellcome Trust (the world’s second-biggest medical-research charity), has gone a step further. Rather than encouraging its researchers to deposit electronic copies of their findings with PubMed Central, it compels them to do so—although they have six months after publication in which to comply. The trust, which spent £483m ($879m) on research last year, also gives its grant holders extra money to pay the charges levied by publishers who already offer open-access publication, and is helping to develop a British version of PubMed Central.

Other arms of the British scientific establishment are involved, too. On June 28th three of the eight research councils that distribute government money to British scientists announced that, in future, any work they pay for will have to be published freely soon after being accepted for publication by a journal; the other five support the principle but are not in a position to enforce it.

Britain’s Royal Society, the world’s oldest scientific organisation, has also got in on the act. Like several other institutions that make at least some of their money from scientific publishing, the Royal Society had opposed open access on the grounds that standards might slip. If each article published brought additional revenue, an organisation might be tempted to run the unworthy as well as the worthy. But now the society has changed its mind, at least in part. On June 21st it launched a service that charges the authors of scientific papers a fee to post their work online as soon as it is accepted for publication by any of the society’s journals. Until now, authors have had to wait for a year before their work became freely available.

The Royal Society’s American counterpart, the National Academy of Sciences, is a convert, too. In 2005 its house journal, the Proceedings of the National Academy of Sciences, published 565 open-access papers, reflecting the fact that almost one in five authors asked (and paid) for their work to be made immediately and freely available. This figure has remained stable, according to Diane Sullenberger, the executive editor of the Proceedings of the National Academy of Sciences. The journal charges $1,000 per paper (although those working at institutions with a site licence pay $750) and it boasts not only that it complies with the National Institutes of Health public-access policy, but that it also extends access even further. It automatically deposits the final published version of all its papers, regardless of who paid for them, in PubMed Central, after six months, and also makes them free on its own website.

There are, however, a few thorns among the roses. Traditional publishers are often sceptical about the business models of their open-access rivals, and they sometimes have cause to be. The Public Library of Science (PLoS), an American organisation
regarded by many as the flagship of the open-access movement, lost almost $1m last year. As a result, it is about to increase its charge from $1,500 per article to as much as $2,500, depending on which of its journals an author publishes in.

Undeterred, PLoS will, in August, launch an open-access online database called PLoS One. Unlike papers published in the main PLoS journals, those in PLoS One will not be assessed for their probable impact or level of interest before they are accepted. Instead, researchers will be able to comment on them through annotations and discussion threads. PLoS describes the project as “return[ing] control over scholarly publishing to the research community”. The database would be similar to the Los Alamos archive, an online repository of physics papers that has been running for the past decade.

bioMed Central, a British open-access publisher, has also increased its charges—from $500 to as much as $1,700 per article. It, too, has still to break even. Yet it received some good news this month. Thomson Scientific, a firm that evaluates the impact of journals, looked at citations made in 2005 of articles published between 2003 and 2004. Eleven journals published by bioMed Central received their first such assessment, and nine of them appeared in the top ten highest-impact journals in their fields. Whatever the traditional publishers might hope, open-access does not look in imminent danger of perishing.
HE CALLS it his “two Thursdays” story. On a Thursday morning two years ago, visiting the Shanghai office of his venture-capital firm, Jerusalem Venture Partners (JVP), Erel Margalit witnessed an online game that 500,000 Chinese were playing at once—all of them immersed in the same story, like a massive film audience, except that they were taking part in the action. That evening he flew to Los Angeles, crossing the international date line, and landed on the same Thursday morning to find that the big studios were sparing barely a thought about how mass participation might affect their films. “I said to myself, this is where things are going to merge,” he remembers.

Mr Margalit imagined a fusion between games and animated films, where viewers are often “snacking on content, not the entire movie”; and where merchandising means selling not a doll, but a character to download on to a handheld gaming device. Which is why he is opening a digital-animation studio in Jerusalem and has brought in big Hollywood animation names to run it. But it is only part of a much larger vision for the city’s future—and his own.

Such visions are part of what has made Mr Margalit one of the stars of Israeli venture capital, though his company is neither the oldest, nor the biggest or the
most active in the industry. He attributes his success to the usual factors: an ability to spot trends early, some luck, and a willingness to take a few big risks. Some of JVP's best early gambles were on technologies that made up the infrastructure of the fast-growing internet. It was one of the investors in Chromatis, an optical-networking company sold in 2000 for $4.8 billion in the biggest-ever Israeli high-tech deal—though Chromatis later became one of the most infamous victims of the dotcom crash.

What Mr Margalit fails to mention is his almost supernatural ability to make people believe in things they might normally dismiss as ridiculous. He founded JVP in 1993 at the age of 32, with no money and no technical background. His knowledge of technology came largely from his previous job as head of business development for Jerusalem's mayor, Teddy Kollek—a job he had won through a mixture of personality and connections. In that role, he helped coax some of the world's biggest technology firms into setting up offices in the city.

His vision was spot on. Israel's high-tech boom was taking off, fuelled by grants to scientists, military-research projects, a wave of engineers and scientists immigrating from the collapsed Soviet Union, and the growth of foreign semiconductor factories. High-tech industries now provide around 55% of Israel's exports, and in the past ten years accounted for about 40% of its growth. Israeli technology firms took a tumble after the dotcom bust, as technology firms did elsewhere; but they have suffered less from the Palestinian intifada than many other parts of the economy. Israel now has more companies listed on NASDAQ, America's technology index, than any other foreign country has.

But venture-capital investments in Israeli firms are now levelling off at about $1.4 billion a year, according to Israeli Venture Capital, a research firm. It's a good moment for Mr Margalit to devote more time to something bigger: nothing less than the transformation of Jerusalem. For years, the secular and affluent have been abandoning the city for Tel Aviv and its suburbs. That leaves it increasingly dominated by Palestinians and ultra-orthodox Jews, both groups with big families and high unemployment. The poorer the population, the poorer the municipality, and so the cycle continues—many think irreversibly.

Mr Margalit argues otherwise. The city's reservoir of intellectual and creative life can be tapped, he insists. A few elite institutions—the Hebrew University, the Bezalel art academy, the state-run Israel Broadcasting Authority, the hospitals, even the government—that now function largely in isolation from the city could become “a cluster of creative elements, a cohesive arena.” Projects such as Mr Margalit's animation studio and the Lab, an avant-garde performance space he owns, which is already helping revitalise a post-industrial wasteland in south Jerusalem, could contribute towards a creative critical mass. Last week he was nominated as chairman of the broadcasting authority; if approved, he intends to make it spend more money on creative, original content. The appointment is widely seen as a stepping-stone to his presumed real goal, which is to run for mayor.
A vision of the new Jerusalem

In the white heat of his vision, knotty political questions melt away too. How to rope in the ultra-Orthodox, who enjoy generous government subsidies to study instead of work? Create technology-related jobs that will offer them something better. And the Palestinians, whose districts get less municipal funding and who face discrimination in hiring by Israeli firms? They are potential go-betweens with the Arab world; Jerusalem could become a gateway to Middle-Eastern markets. He insists that “it’s not utopia”. Although, he says, Arabs and Jews need to develop a new attitude towards each other, he has been in talks with Arab friends about possible projects, though he won't say what.

Mr Margalit can make it sound plausible. He is certainly an incorrigible optimist: even amid the frightening escalation of the Israeli-Palestinian conflict in the wake of the kidnapping of an Israeli soldier, Mr Margalit still argues that a peaceful settlement is just a few years away. One can imagine that in politics, he would be just as persuasive as he has proven himself to be in business—though how well he would swim in Israel's political sea of sharks is another question. For the moment, though, he will not talk about such ambitions. Doubtless he is wary of the fate of Nir Barkat, an entrepreneur who ran for mayor of Jerusalem but wound up with an opposition seat on the city council. Mr Margalit, one feels, is the kind of person who runs only to win.