

Like Harry Potter, the fictional schoolboy wizard who grows older with his readers, brands that mature with their users can prove particularly durable.

age Internet user fees are far lower than those in other developed countries—just six cents per 100 Kbps, compared with 24 cents in South Korea, \$1.77 in the United States, \$1.89 in China, and \$2.77 in Germany. Japan also enjoys the world's highest penetration rate for the mobile Internet, with 90 million mobile phone users, many of whom have 3G handsets.

Perhaps most important, the Japanese economy is still the second largest in the world, representing more than half of the entire Asian economy. Its new ventures can reach critical mass quickly, which gives them an advantage over new ventures in, for example, China and India. Japan's strong base in an array of key technologies and industries—from digital animation to robotics to nanotechnology—creates fertile ground for start-ups in these areas.

When the new Japan is noticed, the attention is often negative. People point to allegations of securities fraud made against the Internet service provider Livedoor, or to insider trading charges brought against the flamboyant financier and shareholder-rights activist Yoshiaki Murakami. But the country's increasing entrepreneurial vitality suggests that in its next stage of prosperity, Japan will be a competitive source of innovation as well as a leading economic power.

Yoshito Hori (yhori@globis.co.jp) is the chairman and CEO of Globis Capital Partners, a Tokyo-based venture capital firm, and the dean of the firm's Global Management School.

3. Brand Magic: Harry Potter Marketing

The typical brand manager is an ageist. It goes with the territory, because whatever the formal customer segmentation driving a brand strategy, the segments will almost certainly be differentiated by age.

Innéov, a line of nutricosmetics jointly owned by L'Oréal and Nestlé, is a case in point. Its main product, a nutritional supplement called Firmness, targets women aged 45 to 55. One of the Firmness brand manager's greatest worries is that if too many "older" consumers (that is, above 55) are stuck to her brand, 45-year-old potential consumers might get the impression that Firmness is "not yet for them—thank goodness."

Like Firmness, most brands target a specific

age group, either explicitly or implicitly, through the choice of media used to advertise them. To serve customers outside that age group, the company has to create new brands. As customers mature, the company must replace them with younger ones and encourage the previous customers to switch to an allied brand rather than to a competitor.

The big problem with this approach to branding is that it positively discourages customer loyalty—and, as we all know, it's a lot cheaper to keep customers than to find new ones. To get around this problem, we propose that companies like L'Oréal consider a new approach. Instead of seeking to build immortal brands that generations mature into and then out of, they could create brands around a given cohort of customers. As the customers matured, the brands would evolve with them. The aim would be to match the needs of that cohort at any moment in time. We call this "Harry Potter marketing," after the fictional schoolboy wizard who grows older with his readers.

How would it look in practice? Let's assume that instead of targeting Frenchwomen "of a certain age," Innéov targeted women born between 1955 and 1965 and launched a brand called Souplesse (Suppleness) in 2005. Because this customer pool would not change over time, the company could explicitly manage for brand loyalty, responding to the actual preferences of its customers rather than trying to sell them a predesigned set of preferences. This more balanced dialogue would enhance the targeted cohort's emotional bonding with the brand. For example, the brand could continue to capitalize on the fact that many of its consumers grew up in the age of disco or thrilled to the tunes of ABBA.

Various components of the marketing mix would be affected. The proportions of active ingredients in Souplesse would progressively change to take customers' aging into account. The company might want to retain the same celebrity (the French actress Carole Bouquet, perhaps, or the fashion icon Inès de la Fressange) to endorse it for many years, creating further emotional bonding. However, her message about the product's benefits would change over time. When most members of the cohort had reached the age of 55, the emphasis could switch from "attacking the first visible signs of aging" to "providing a complete skin

treatment.” Distribution strategies should take into account the evolution of the cohort’s shopping habits. When the majority of the cohort had reached the age of 65, for instance, L’Oréal might make beauty salons a retail option because older consumers spend relatively more time there.

Unlike traditional brands, Souplesse would face a certain death. For most brand managers, this would be a disaster; but L’Oréal would already have launched other Innéov skin creams for subsequent cohorts. Would this constant churn be expensive? Perhaps. But the continual relaunching and repositioning of age-specific brands is also expensive—and our preliminary work with L’Oréal suggests that Harry Potter marketing would not necessarily be more so. For one thing, evolving Harry Potter brands would presumably profit from greater brand loyalty. Of course, this sort of marketing won’t work in all industries, and it needs to withstand the test of, well, time. But it could be used for food, health care, clothing, and the media. This perspective can help explain why, for instance, Club Med and Gap, whose original successes were each due to a single generation’s strong emotional bonding, have experienced a downturn in their sales.

One last word: A world of cohort-specific brands will probably favor first movers, because if they do their job well, second entrants

will find differentiation difficult. This suggests that fans of Harry Potter should proceed quickly.

Frédéric Dalsace (dalsace@hec.fr) is an assistant professor at HEC School of Management in Paris.

Coralie Damay (coralie.damay@mailhec.net) is a doctoral student at HEC School of Management.

David Dubois (duboisd@northwestern.edu) is a doctoral student at Northwestern University’s Kellogg School of Management in Evanston, Illinois.

4. Algorithms in the Attic

For a powerful perspective on future business, take a hard look at mathematics past. As computing gets ever faster and cheaper, yesterday’s abstruse equations are becoming platforms for tomorrow’s breakthroughs. Companies in several industries are now dusting off these formulas and putting them in the service of new products and processes.

Procter & Gamble has been restructuring its supply chain with complex “expressive bidding” algorithms—based on 1950s linear-programming equations—that allow suppliers to bid online with bundled offerings of products and service levels rather than with standardized lots. Google’s search engine was possible only because the founders adapted a century-old theorem about matrices to software for ranking Web pages according to links from other sites. Networks like the Web can be expressed as matrices, and a relatively simple calculation gives a ranking of how well each site is connected to the rest of the Web. That formula for automatic ranking—which could be understood and appreciated without a PhD—is one of the most lucrative algorithms ever. The math was there for the taking.

Why should past work, often quite theoretical, be so useful now? Done in the absence of high-speed, low-cost computational capacity, that work put a premium on imaginative quantitative thinking. With today’s high-powered processors and broadband networks, those abstractions can point the way to practical software that leaps over current operational constraints. Disruptive opportunities abound.

“There are huge hidden assets in the operations-research community,” says the MIT professor Richard Larson, a pioneer in probabilistic modeling techniques. “If you gave an army

Panning for Gold on Dusty Shelves

Today’s high-speed, cheap computers have given abstruse mathematical advances immediate practical relevance. With the help of “mathematical entrepreneurs,” companies can now adapt these equations and algorithms to a range of business challenges. Here are some examples:

Formula	Date of Original Development	Original Use	Current Business Application
Perron-Frobenius theorem	1800s	Ranking nodes in a network	Improving search engines; analyzing and customizing communication on Web sites
Monte Carlo random number generators	1940s	Testing scenarios for atomic bomb explosions	Evaluating the riskiness of competing capital projects
Genetic algorithms	1970s	Demonstrating Darwinian principles in mathematical problem solving	Developing products by computationally evolving the design in response to constraints
Simulated annealing algorithms	1980s	Determining the cooling time for tightly packed crystallizing molecules	From scheduling complicated processes to optimizing product placement on store shelves