What can research learn from biology?

Laurent Florès, CRMMetrix, and **Mark Whiting**, Moët Hennessy, explain how mother nature can show the way to developing new ideas and products

IN THEIR RECENT BOOK *It's Alive: The Coming Convergence of Information, Biology, and Business* (1), Stan Davis and Christopher Meyer show us the way to 'evolution' in a connected economy. They highlight the need for companies and businesses to adapt and learn from their environment, to grow or die. We believe that research has much to learn and borrow from life cycles and biology, to reinvent itself and marketing. Businesses are looking for a new paradigm to move thinking and productivity to higher levels of return and creativity. To this end, as AG Lafley, CEO of P&G, pointed out, the period we live in is more than ever a period of change, where we need to reinvent our models: 'We are going to need to reinvent the way we market to consumers. We are going to need a new model for the 21st century. Consumers' right to control everything has accelerated. We're going to start walking a lot faster, maybe even running. We have to be comfortable with being uncomfortable. Stretch thinking means moving out of the comfort zone. Pitting risk management against risk aversion' (Cincinnati, November 2004.)

This article provides the background, foundations and highlights of the development of a new ideation solution, brandDelphi™, which harnesses the power of evolution to develop and refine new product concepts and messages. We hope to show how marketers can build, maintain and develop consumer communities within which they can constantly evolve, moving research from simple transaction to real exchange and relationship.

Harnessing the power of evolution

Of all the processes in the universe, evolution is perhaps the most awe inspiring. What is more, it is beautifully simple: descent (continuity) with modification (change), powered by a simple mechanism of natural selection. Evolution and its effects are all around us today: emerging, designing, producing species adapted to their environment, antibodies adapted to infections and knowledge adapted to the world. We have found a way to harness this process to help design new product concepts and messages highly adapted to their target markets.

The simplicity of the evolutionary mechanism means it is easy to model: essentially, it is a simple two-step Darwinian algorithm.

Step 1: blind variation
Step 2: selective retention.

Take the natural world. Step 1 (blind variation) is the random production of heritable genetic mutations, which, when they are adaptive, allow the owner of the mutation to survive and have relatively more offspring. The iterative effect of this differential replication is that, over many generations, mutant adaptive traits spread through the population until they become the norm. Step 2 (selective retention) is the pressure of the environment on these blind variations. In a competitive world where demand exceeds resources, only the fittest variations survive: the environment selectively retains only well-adapted mutations – the others perish.

> 'Successful innovation works by solving problems of fit between consumers' needs and wants, and because the conditions for Darwinian evolution are met, the innovation business proposition can be modelled around the Darwinian algorithm'

What has this got to do with market research?

The answer becomes clearer when we look at how the Darwinian algorithm works in the world of knowledge acquisition. Science harnesses evolution to expand our knowledge of the world by generating theoretical mutations (hypotheses), then testing them to see if they fit with the environment of facts and theories. Those variations (mutations) that are better adapted to the environment are selected, while less-adapted variations are discarded. Similarly, in the competitive world of marketing and innovation, marketers and R&D develop product ideas by generating mutations and new combinations of ideas that they hope will be adapted to their target market and bring exponential sales (2). Again, only the fittest of these will survive in this battle, which requires both skill and experience: too much 'continuity' without 'modification' can create maladapted obsolescence. Too much 'modification' with insufficient 'continuity' can produce a mutant monster. In other words, too much continuity may not be perceived as being really new and may lead to failure; whereas too much innovation may be inadequate, as the product may be too advanced to fit current market expectations.

Successful innovation works by solving problems of fit between consumers' needs and wants and, because the conditions for Darwinian evolution are met, the innovation business proposition can be modelled around the Darwinian algorithm. By integrating established wisdom of new product development (NPD) research with evolutionary models and concepts, we are developing a powerful new set of tools for marketers to exploit in order to solve their NPD challenges.

From this perspective, creating a successful new product depends on achieving a better fit with the selective environment of the market than our ▶

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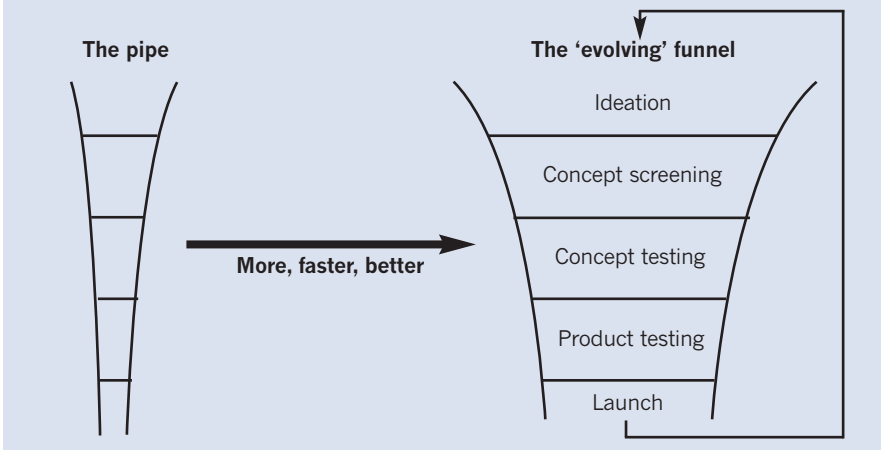
competitors. But what is this 'selective environment'? It is the minds of consumers – or, more exactly, the experience and beliefs that consumers have about products and brands. Successful new products are 'blockbusters' if they accurately and uniquely fit consumer needs: and when the fit is good, they can sweep through a target group like a virulent mind virus.

Successful new products are therefore adapted to (a) the inherited and changing needs of consumers, and (b) the acquired social environment with which we are 'programmed' as consumers and in which new products must fit.

Now we have highlighted the opportunity to develop evolutionary new product ideas, the question becomes how do we actually develop ideas that evolve to fit our crowded market environment?

FIGURE 1

From pipe to funnel: the evolution process



How principles of biology can boost effectiveness

Increasing the success rate of innovations and their speed to market remains a long-standing goal of all innovation processes. Interestingly, since 'funnel and gate' innovation systems have been adopted by most companies (3, 4), there seems to be a stalemate in the innovation arms race and increasing frustration with the time it takes to get new products through the funnel and into the market. Not to mention that so-called blockbuster products are few and far between and, worse, that the majority of new products launched are failures (5).

So how can we leverage biological principles to improve our success rate and our innovation funnel? The answer is simple and relies on our ability to have more ideas from the beginning; to test and refine the ideas at every stage; and do so rapidly, to increase our ability to learn and change accordingly. In fact, biologists will immediately identify this challenge as some type of 'evolution of species by means of natural selection'. In broad terms, the algorithm is: 'generate and test', 'generate and test', over and over again, to select the fittest for survival. In fact, the evolutionary analogy offers an interesting parallel and may well explain the current stalemate marketers are facing with innovation and offer solutions (6).

In fact, the analogy applies not just to drive changes in the innovation funnel, but also to the operational process of generating, testing and refining product ideas and concepts. We can summarise the direction to look for in Figure 1, which shows the need for a broader funnel, rather than the 'pipe' marketers use now in their stage-gate process (3), and the need for evolutionary input and higher speed throughout the process.

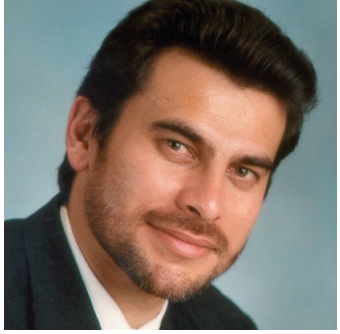
We believe strongly that changes in NPD research are urgently needed and that the internet offers an ideal environment to apply evolutionary principles to the designing of innovative new product research.

The evolutionary nature of the internet

Our goal is not to continue an old debate. It seems obvious that the future of research is internet based, as it is more efficient and offers marketers faster, cheaper research. Although speed is key in our desire to improve the innovation funnel, the real power of the internet for research is that it allows researchers to do something new: to harness the power of iteration by conducting inductive, rather than deductive, research; thereby allowing respondents' responses to build on each other and evolve into an integrated overview, in what we could describe as an automated Delphi process (7, 8). Back in 2000, we started developing brandDelphi™ (for more details visit www.brandDelphi™.com) exploiting the original iterative principles of the Delphi method by involving not experts, but consumers, in a massive brainstorming session involving hundreds or thousands of consumers (rather than a dozen, as in classical brainstorming), to provide and refine ideas through an evolving process where each consumer provides input as well as building and selecting ideas provided by others, and rating selected ideas. Such a process boosts the 'natural selection' of ideas, allowing only the best to survive.

When used for ideation, the number of ideas generated by brandDelphi™ are bigger and of better quality, thanks to a unique ability to find both new ideas (the *what* of the message), and better ways to express those ideas (*how* to say it), because they are generated and refined by consumers themselves (9). Also, the evolutionary nature of the process may help find and amplify really new ideas or 'weak signals' (10) that would be lost through traditional ideation. In fact, the iterative and evolving nature of the process allows ideas to get traction and move to the top by being selected by other consumers who have not had the idea themselves, but upon exposure found it

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so compelling that they endorse/select it, amplifying this 'weak signal' to help it become a star.

Experience across different markets and regions shows that integrating brandDelphi™'s evolutionary questioning in concept research offers an improved ability to evolve ideas and concepts, as suggested and driven by biological principles. This can happen at all stages of the innovation funnel:

- from ideation – to start with more and better ideas
- to concept screening and concept testing – to continuously refine the ideas .

In turn, this process allows marketers to accelerate their NPD cycles, and helps them develop better products thanks to the availability of better ideas up front that are constantly refined throughout the process.

Further, empowered by this evolving system, marketers can look into exploiting the connectivity of the internet to develop and maintain consumer communities with which they can constantly exchange, evolve and grow, thanks to an open source of communication and innovation (11). We will now highlight an example of this in the Hennessy.com website, which offers Hennessy marketers an ability to learn, exchange and grow thanks to and with their core target consumers.

Hennessy: case study

Since evolution is at the heart of innovation, when the ability to enhance the innovation funnel through evolutionary thinking has been demonstrated, the next inclination is to develop and maintain ongoing conversations with consumers. These conversations are the basis, and represent the engine, of evolution. By exchanging, refining and conversing with consumers, marketers can constantly learn, test and refine in an open environment that maximises the generation of ideas and product/service evolution. So, we think that 'passive' and 'active' listening to consumers on the web represents the next generation of innovation research. The basis and first steps of this development are illustrated by Hennessy, the worldwide leading cognac brand.

The idea of interacting with consumers on the web to develop Hennessy's brand services came about almost by chance, like the best examples of evolution. We noticed an increasing number of hyperlinks between our brand's website (hennessy.com) and an American website called Blackplanet.com. This is the site in the US most frequently visited by African Americans, with over 14 million members. It allows members to create their own personal web space where they can tell others about their lives and interests, and make new friends.

A close fit with Hennessy's core consumer in the US, some of Blackplanet's members were linking their personal pages to Hennessy's site or 'borrowing' images from the site to decorate their pages (to show their affinity to the brand and share their passion for it with others). Hennessy was doing nothing to encourage this (not even advertising the site or providing easily downloadable images); these were true brand enthusiasts, who had sought out the site and were connecting with the brand on their own initiative.

Once we started to explore this phenomenon, we quickly came to understand a remarkable opportunity to gain a direct insight into the lives of our most enthusiastic consumers. The question we asked ourselves was what did it mean that some of these web pages included images of Hennessy products?





Hennessy: web-based evolution

We realised that only a thorough quantitative and qualitative assessment of the web-page creators and their sites would allow us to understand this and identify whether there were important implications for our brand. Our first-phase study took a randomly selected sample of 1,200 personal pages created by people aged 21 to 29 (the core target for Hennessy VS in the US). Those illustrated (below left) are typical of what we discovered.

It was gratifying to find our brand portrayed like this on consumers' personal pages, but it also reminded us of our responsibilities. It shows that the brand belongs as much to its consumers as to its managers. The first key learning we identified is that to respect our consumers, we must listen to them without prejudice, in order to learn how to fulfil their needs more effectively. Their vision of our brand is not necessarily ours, but this does not make it any less valid.

But we wanted to know more about what this meant for our brand. We commissioned a research survey with CRMMetrix to learn more about the consumers who were coming to Hennessy.com to download images for their personal websites (and for other purposes). The easiest way to speak to them was via a pop-up questionnaire positioned at the exit from Hennessy.com. A total of 224 interviews were conducted during January 2004, from which we ascertained that:

- these consumers are of very high value to us; for the most part they are new entrants to the category and by our usual classification, eight out of ten are high- volume consumers; half intend to drink more cognac in the next year than at present
- these consumers exert a strong influence on the alcohol choices of people around them; CRMMetrix considers that half the respondents were opinion leaders for the category, six times the average for the total population.

The questionnaire included a brandDelphi™ module that asked consumers about the different kinds of content ▶

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and services they would like to find on the Hennessy site:

1. What else do you think should be added to the Hennessy.com website, in order to improve it, and to offer you a more interesting or enjoyable experience?

2. What type of services/features should be added to the Hennessy.com website to make your experience of drinking Hennessy cognacs more enjoyable?

3. What else could Hennessy.com offer to encourage you to visit the site more frequently?

Respondents could suggest their own ideas and rate ideas suggested by previous participants.

The ideas generated by consumers showed several 'quick win' actions we could put in place to benefit from the phenomenon of personal pages. At Hennessy.com we have created a section with downloadable content: product photos, wallpapers and brand logos. These come in various formats, with and without backgrounds, to make it easier for consumers to find exactly the right image to fit the design of their pages. Also, consumers can either download the images or link directly to the images on Hennessy.com, thus increasing the speed with which the images load on their pages.

In addition, we have added a range of cocktail recipes, in the hope that consumers will not only follow the recipes, but include the recipes on their sites. And we have created Hennessy-branded e-invitation cards that consumers can download and use to invite their friends to parties. These 'services' have been publicised through web mailings to registered Hennessy.com visitors. As a result, the downloads section of our website is by far the most visited section, ahead of the product information and brand history that used to make up the majority of the content.

All these developments were aimed at leveraging the natural flow of word-of-mouth recommendations that personal web pages are fostering for Hennessy.

These and other findings also helped convince us to develop the relationship marketing opportunity afforded by consumers visiting Hennessy.com. In particular, we are interested in the 10% of consumers who visit Hennessy.com more than once (ie those who engage with the brand on their own initiative, looking to receive information) and, within these, a core group (perhaps less than 0.1% of the total) of opinion-leading consumers who are so enthusiastic about Hennessy that they want to download images for personal pages and actively recommend the brand.

'Research needs to evolve towards more consumer-centric approaches and processes – moving away from simply asking questions towards listening to consumers, involving them, and growing relationships'

We have developed a plan to relaunch our website, targeting the core group of opinion-leading consumers. The new site will serve as a platform for relationship marketing and move us to a new level of interaction with consumers on the internet: from passive listening (observing consumers on personal web pages), via active listening (conducting research surveys with consumers on our website), to interactive listening, by making brandDelphi™ interaction part of the everyday life of our site.

We aim to be able to respond to the specific needs of Hennessy enthusiasts (giving them a forum for telling us what they would like to see from the brand), and provide them with adapted services that encourage them to visit the site regularly and stimulate them to talk about the benefits of the brand. The idea could be replicated for other key stakeholders in the brand, such as bartenders and our global network of brand ambassadors. Our hope is to have this new site online by the end of 2005.

The way forward

Listen, learn, test, learn, test ... grow and ... evolve. As marketers, our experiences over the years have taught us that the best ideas are usually the simplest: those that come to mind in a flash, then grow and evolve naturally. So, we believe that research needs to evolve towards more consumer-centric approaches and processes, moving away from simply asking questions (sometimes wrongly or inappropriately) to listening to consumers and involving them in long-lasting exchanges that build and grow relationships. In fact, research needs to return to basic principles of human exchange, by listening, observing and inviting comments, rather than forcing them. For this, the web is more than ever the future of research, but researchers should reconsider their internet model, to use the web to evolve, rather than just replicate existing processes. We believe that interactive listening solutions such as brandDelphi™ show the way to 'evolutionary research' and that the emerging and developing word-of-mouth research industry will further push us to evolve by listening.

Our future is bright and exciting ... maybe only for those who are listening ... so, are you ready to evolve? ■

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