
THE DAY AFTER TOMORROWLAND --- Disney's secret for eternal growth: the Imagineers.

By Jonathan Burke

2,502 words

1 May 1997

The Red Herring

42

English

(c)1997. Red Herring Communications. All rights reserved.

At the Walt Disney company's shareholders meeting this February, held at the Mighty Ducks' hockey rink, Chairman Michael Eisner was checked hard against the boards. The primary complaint was excessive executive compensation, topped by a potential \$400 million to be paid to Mr. Eisner over the next decade.

Another shot from investors was that Mr. Eisner should do a better job of planning for the future in the post-Eisner era-- an odd criticism given that Mr. Eisner shares the late Walt Disney's penchant for long-term planning. It was in the early '50s that Disney founded his company's link to the future: Walt Disney Imagineering, a division that continues to be responsible for creating and tending Disney's intellectual capital. Now numbering 2,200 employees, Imagineering is an unrivaled amalgam of world-class architects, writers, engineers, sound technicians, carpenters, producers, filmmakers, and professionals working in about 150 other disciplines. Now Mr. Eisner hopes to rejuvenate Imagineering by commissioning Bran Ferren, who is in charge of Disney's research and development, to ensure that the company becomes the pioneer of technology for the sake of entertainment.

Mr. Ferren has responded by hiring four living legends of technology--all enormously productive and charismatic polymaths--to become Imagineering Fellows. They are Alan Kay, a founding father of the personal computer; Marvin Minsky and Seymour Papert, who cofounded the Artificial Intelligence Laboratory at the Massachusetts Institute of Technology in the mid-'60s; and Danny Hillis, an inventor of massively parallel computing.

Imagineering is painfully reticent about its current projects, leaving investors completely in the dark about Disney's growth engine. Furthermore, the Imagineering Fellows say that really good research simply cannot have a precisely stated goal--it can only have a generally defined direction. Despite the fog, Disney's intellectual captains telegraph what innovations to expect. Among the group's not-so-modest goals: to become a force in education via the Net and the airwaves; to develop a new system of rhetoric for the computer, replacing the system developed for the printing press; to bridge broadcast channels and the Net; to showcase a reasoning computer that quantifies emotional reactions to characters; and to recast America's myths for the new century.

The chairman

The Imagineering Fellows all say they were drawn to Disney because the company makes things happen. According to Mr. Kay, "Disney is probably the greatest organization ever at making abstractions concrete." This reputation was forged by Mr. Eisner. Lest people forget, Disney was junk when Mr. Eisner first came to the Magic Kingdom.

In 1979, Disney's film profits were only \$40 million and its movie market share had shrunk to 4 percent--the lowest of the seven major studios. These were the days of The Love Bug and The Apple Dumpling Gang Rides Again. Park attendance was down at its two theme parks because the company had neglected to add new attractions and because of a policy against advertising, which Disney himself thought tacky. A policy against raising ticket prices at the theme parks further stunted the company's growth.

By greatly increasing employment incentives, Mr. Eisner brought with him talents like Jeffrey Katzenberg. He also hired consultants like George Lucas and Michael Jackson, who put their signatures on new rides, and negotiated partnerships with MGM and General Motors to sponsor expensive new attractions. His Imagineering group devised new businesses, including cruise lines and animal parks, and it commercialized breakthrough technology, including Disney Vision for the Aladdin Magic Carpet VR Adventure. As a result, Mr. Eisner is given credit for reviving Disney's dormant creative juices. Under his 12-year watch, the company's market cap has grown from \$2 billion to \$53 billion.

But, as investors noted a couple of months ago, there are doubts about the future. Disney's stock performance was weak in 1996 and analysts call it fully valued for 1997, largely because of disappointing

earnings at Disney's ABC subsidiary. Two new books critical of Disney--called *Monster* and *The Tragic Kingdom*--haven't helped Disney's image. In describing its decline, Seth Schiesel of *The New York Times* flatly declares, "Disney has largely given up on imagining a new future." But to judge by the ruckus at Imagineering, Mr. Eisner hasn't given up at all.

The entertainer

It's the TED (Technology, Entertainment, Design) conference in Monterey, California--a rare day when most of the Imagineering Fellows are gathered and can be photographed together. Mr. Ferren maintains his composure as the Fellows resist calls to assemble. Mr. Hillis is captivated by an abstract French animated film, Mr. Kay is engaged by an aggressive Texas businessman, and Mr. Minsky is limping in circles while professorially examining his leg, which has apparently gone dead. "It's impossible to tell these guys what to do," says Mr. Ferren; then, realizing that a reporter might possibly misinterpret, he flashes a nervous smile. He doesn't want us asking, How easy will it be to guide the Fellows toward meeting Disney's business goals while letting them be themselves?

Mr. Ferren came to Disney in 1989 in a rumored \$20 million acquisition of his firm Associates & Ferren, a special-effects boutique. With talents for multiple disciplines, he has won two Academy Awards for technical achievement, designed Revo sunglasses and extravagant New York discos, and produced concerts for several major rock stars.

A few weeks earlier, we visited Mr. Ferren at Imagineering's Glendale, California, headquarters. "Computers are awful devices," he declared while filtering his email. And the Web is no better, he says. This despite Disney Interactive's investments in Family.com and Starwave and intentions for much bigger expansion plans.

How, then, will Disney become a cyberspace giant without wholeheartedly embracing the Web? Mr. Ferren answers that Imagineering is hard at work developing the successor to television. The project is code-named the Global Broadband Interactive Network Navigator/Emulator. Surely, he isn't referring to interactive TV or Net TV? "Of course not," he says. "Storytelling is everything, and interactivity as we know it takes away the storyteller's spell." The most rigidly enforced rule at Disney, says Mr. Ferren, is that technology must be invisible within the storytelling process. The Web browser's technology is far too obtrusive for Disney's liking. But, with several large technology companies tackling the assignment of making it less so, it's a stretch to suggest that Disney will single-handedly forge a successful standard for stealth interactivity. A more likely scenario is that in the next two years, Disney will showcase interactive TV programming developed in conjunction with the likes of Microsoft or Netscape.

The teachers

Alan Kay is due to take the stage next at the TED conference, but Jim Fowler of Mutual of Omaha's *Wild Kingdom* fame continues to explain how human society has gone astray. "People would rather go to artificial places like Disneyland than learn from the natural world," he gripes. This thought is echoed by Martin Greenberger, a professor of communications at UCLA, who notes, "Where Disney hasn't shined is in the learning area; there is a lot more it can do."

If Mr. Kay has his way, such criticisms of Disney will be hard to level. Over the past 30 years, it has been his mission to make technology accessible to children. Mr. Kay is looking to infuse Disney with an education ethos, extending the company's education programming over the Net and the airwaves. One problem with education, he says, is that it is not well advertised; he contends that adroit marketing will persuade children to tune in to Disney-sponsored education.

Mr. Kay was an engineer at the Xerox Palo Alto Research Center in the '70s, served as chief scientist at Atari, and after that worked for many years as a researcher at Apple Computer. He is credited with the codevelopment of the mouse, overlapping windows, and SmallTalk, an object-oriented programming language for children. In addition to being a computer scientist, Mr. Kay calls himself a musician, mathematician, biologist, physicist, philosopher, and cognitive scientist.

Mr. Kay says the reason he has come to Disney is to struggle with stories. He puts his mission in perspective: "If we look back over the last 400 years to ponder what ideas have caused the greatest changes in human society and ushered in our modern era of democracy, science, technology, and health care, none of these is in story form. Newton's treatise on the laws of motion, the force of gravity, and the behavior of the planets is set up as a sequence of arguments that imitate Euclid's books on geometry."

As a medium to convey this knowledge, Mr. Kay cites a successor to the printing press: the computer. It has transformed society, he says, through its word-for-word replication of text, which fosters a system of rhetoric that borrows from and adds to previous works. But though the computer is superior to the printing press--it can reproduce graphics in 3D, after all--it has spawned no new rhetorical system.

Mr. Kay says his first step toward a new printing press was Apple's Vivarium, which he developed in 1986. The original idea for Vivarium was an ecology-in-a-computer concept, where children used agents to design animals and simulated habitats on a computer screen. The program, he explains, pushes children to learn without the use of written explanations.

The direction Mr. Kay takes at Disney will be reinforced by the presence of his mentors, Mr. Minsky and Mr. Papert. Mr. Papert in particular will be Mr. Kay's ally in fomenting the revolution in education. He recently published a book about family use of computers called *The Connected Family*. In it, Mr. Papert asks, "Is there any reason to believe that the school--with its structure of classroom, segregation by age, and so on--will exist in 50 years?"

Mr. Minsky is also an educator. In fact he became an interactive teacher with the release of a CD-ROM based on his influential 1988 book *The Society of Mind*. He also has interests in cognitive psychology, mathematics, computational linguistics and music, robotics, and optics and has even theorized on communication with alien intelligence.

Mr. Minsky plans to focus on artificial intelligence development at Disney based on his belief in the ability of computers to perform commonsense reasoning. Despite its fallen reputation, AI has made some progress through an approach promoted in *The Society of Mind*; the idea is that although it might not be possible to simulate intelligence through a single massive program, one might create a collection (or "society") of small, specialized applications whose sum is intelligent. At Disney, it will be Mr. Minsky's main challenge to coalesce independently evolving specialized subdisciplines into a vehicle that will bewitch lay audiences--machines that will reason with them.

The mythmaker

By all accounts, Danny Hillis is a natural Imagineer, a coup for Disney. He has a reputation as a playful person who drives a fire truck, loves circuses, designed toys for Milton Bradley while still in high school, and claims he wanted to be an Imagineer from the time Walt Disney described the job on TV's *Wonderful World of Disney*.

In addition to Mr. Hillis's computer skills, he has deep interests in biology and artificial life. But, like the other Fellows, Mr. Hillis claims it is storytelling that intrigues him these days. He proposes that America's storytelling heritage is no longer relevant. The story of conquering new land is why the space program succeeded, he says, but the physical spaces have now been largely vanquished. In his presentation at the TED conference, Mr. Hillis recalls the speech made by Chief Seattle in which he told the conquering Europeans that once their conquering was finished, they would run out of story. And Mr. Hillis believes this time has come. "Our problem is that we literally cannot imagine the future," he has written.

As a first step toward the new storytelling, Mr. Hillis has put in motion the creation of the Millennium Clock, a device that ticks once each year, with a cuckoo emerging each millennium, for 10,000 years. The idea is to stretch out people's sense of time. The challenge lies in designing a device that will endure and, perhaps, evolve. He plans to power the clock by having people climb stairs to visit it.

Mr. Hillis has set three challenges at Disney. First, he wants to quantify emotions; a parallel is Isaac Newton's development of the color spectrum. If you can quantify one of the senses, he says, it might also be possible to quantify emotions and to affect them with technology, just as TVs and movies affect viewers with their control of the visual spectrum.

A second challenge is the creation of virtual characters. Mr. Hillis would like to determine how artificial characters can be depicted so that viewers care about them as they would humans. The big question here is what defines the abstract concepts of beauty and attraction. As the Disney brand expands abroad, it becomes important to determine if there exists a transcultural notion of beauty.

Mr. Hillis's third challenge is to address Mr. Ferren's complaint that interactivity ruins storytelling. As proof that it needn't, Mr. Hillis cites Disney's theme parks, which are interactive: visitors decide on which streets to walk, but the storytelling never falters.

Disney for dummies

Peers of the Disney Fellows suggest that, even if their projects are fruitless, they will nevertheless inspire Imagineering. These men are working on hard, long-term problems, so their presence raises the bar for everyday greatness at Disney. More important, the reputation they bring to the division opens the door for the recruitment of other gifted minds.

The obvious danger is that the high standards of these new architects will conflict with Hollywood's financial incentives to satisfy immediate mass demands for diversion rather than mental stimulation. The brilliance of

Faulkner, Waugh, and Fitzgerald--to name but a few--was diluted by the studios. And Disney has been no safe haven. It has commissioned great architects, for example, then forced them to use smiling mice and ducks as support columns.

But the Imagineering Fellows say they will work with the tyranny of consumer tastes. They aim to create high-minded material that is compelling enough to outdraw their adrenaline-pumping competition. Their lure: the superior deployment of technology. As one industry watcher, Jerry Michalski of EDventure Holdings, says, "The future of entertainment in every way hinges on really smart use of technology. It will affect the economics, the distribution, and the composition of all entertainment--and it's really hard to figure out." If the experimentation of the Imagineering Fellows answers these questions, Mr. Eisner's \$400 million paycheck will be money well spent.

Document rhm0000020011008dt510003c