

4 BOTH WORLDS

Interviews with Joel Hyatt, Bruce Nussbaum, Jessie Scanlon,
Jane Friedman, Martin Eberhard, and Rich Archuleta

media, designing versions that complement one another and enhance the output of both the old world and the new, even when the results challenge established financial structures.

Joel Hyatt, vice chairman of Current Media and subject of the first interview, saw a closed media industry that he wanted to help transform into something that could support a vibrant democratic society. The idea of building a new kind of media company that could help facilitate a global conversation was an inspiring challenge. With Al Gore as a founding partner, he set about creating a television production company that would have 40 percent of the output generated by the audience but also benefit from professional editorial control and curation. It would also leverage Internet-based content for influence, commentary and discussion.

The next interview is with Bruce Nussbaum, a managing editor for *BusinessWeek*. He wrote the editorial page throughout the nineties, expressing the magazine's point of view on all topics while becoming more engaged with emerging technology and design. In 2005 he started the Innovation and Design channel online and the NussbaumOnDesign blog for *BusinessWeek*. The content yielded its own unique style, which allowed Bruce to start a quarterly supplement for print called *IN: Inside Innovation*.

To develop the Innovation and Design channel Bruce pulled together a group of people who were able to work fluently in multiple media, confident that they could create material for print, online, video, and blog. To begin with, he brought Jessie Scanlon in to start the channel and lead the editing, as she thrived online and "was totally cool." In the next interview, Jessie talks about her experience in developing the design.

Jane Friedman has been marketing books for more than four decades, and from 1997 to 2008 she was president and CEO of HarperCollins Publishers. She believes in print and the longevity of books as a medium but has always sought the best of both worlds by combining electronic media with physical books. In her interview she tells how she invented the author tour, promoted by radio and television. She developed audio books in the eighties. She built a digital warehouse to improve online search access and revels in the ability to use the Web

to reach potential readers. She sees social networking as a welcome extension of word of mouth and on-demand publishing and electronic books as opportunities to reduce publishing costs.

RocketBook and Softbook were launched in 1998 from two newstart Silicon Valley companies competing for the emerging market in electronic books. They were both a little ahead of their time, as electronic books needed some new technologies before they would start selling in viable quantities. Our next interview is with Martin Eberhard, the founder and CEO of NuvoMedia, the company that created the RocketBook. Amazon's Kindle and the Sony Reader have made electronic books a likely choice for road warriors who like to travel light but also need access to a stack of different titles for work or study. Electronic books are on the threshold of more general acceptance, as the enabling technologies mature and new designs emerge. QUE is an offering from Plastic Logic that was launched in January 2010, a few weeks before the announcement of the iPad from Apple. The iPad has a lot in common with the iPhone, and the historical precedent of the RocketBook. QUE uses a plastic substrate for E Ink to allow a generous display on a product with physical dimensions similar to a pad of paper, so the reading experience is more like the Kindle or the Sony Reader. Rich Archuleta is the CEO of Plastic Logic; he describes his ideas about e-readers and e-books in the last interview in this chapter.

JOEL HYATT

Interviewed November 25, 2008



← Joel Hyatt
photos by author

JOEL HYATT

Joel served as national finance chair for the Democratic Party in the presidential election campaign of 2000, getting to know Al Gore in the process. After the election they decided to build a new, exciting, and different form of medium to democratize the creation of TV content. Before 2000 Joel had a distinguished legal and political career with a recurring theme of opening closed systems to enhance participation.

Joel and Al developed a concept to combine television broadcasting with participation by audience members, enabled by the Internet. In 2004 they purchased Newsworld International, a cable news channel programmed by the Canadian Broadcasting Corporation that aired news programming from around the world, and started to build a team in San Francisco. They relaunched the network as the Current TV platform on August 1, 2005, providing a news and information service that pioneered the concept of user-generated content on cable and satellite TV.

Current TV is located in a beautiful old office building close to the water's edge on San Francisco Bay. When I arrived to set up cameras for the interview with Joel Hyatt, I admired the red-brick facade, which had a grid of metal-framed windows set into the front openings, glowing in a strong turquoise blue. I stepped inside and climbed a broad steel staircase to the reception desk, passing the TV studios full of recording equipment and people busy creating programming. Joel sat with me in his office, close to a large photo of Al Gore, and talked eloquently about his work and philosophy.

anche tu puoi dire la tua.



← Al Gore at the launch of the Italian branch of Current TV in Rome
photo by Simone Brunozzi/Creative Commons

CURRENT TV

Joel Hyatt started the interview by describing the origins of Current TV and its focus on combining the best of the traditional world of television with the new possibilities of user-generated content.

Al Gore, my partner and cofounder of Current TV, and I decided we wanted to create an entirely new kind of media company, the core innovation of which would be to empower our young adult audience to contribute in significant ways to the creation of the content they consume. At the time that Al and I set out to build Current, no one had ever heard of user-generated content. YouTube had not been founded. The media industry was this oligopoly of a handful of companies that really controlled the dissemination of information and entertainment into all the homes in the U.S. and indeed, for that matter, much around the world. And we believed that with technology we could unleash the creativity of a young adult generation that knew how to use the digital tools of the modern world and then take the powerful media platforms that existed and share that power with them and in that way give voice to a whole generation whose voice was not being heard.

From the outset, the Internet was critical for our production infrastructure. It was how young people submitted content to us, into an online studio that we developed, a virtual production studio that allowed content creators to communicate with each other [and] to comment on, vet, and vote on content. And the very best would make it to television. We built out that production studio with training components and professional guidance, none of which existed before. First we wanted to have a training program that, no matter what your level of skills with video, we could help you improve your ability to create

broadcast-quality TV. Someone could pick up a camera and come to us and learn, “How can I use this camera to tell my story and share my story with my generation?”

On the other hand, we knew that the stuff that would get to television had to be really high quality, so it was also a production studio for very skilled independent filmmakers and videographers who were looking to break out and get their work seen, so at the high end there was also a lot of guidance and help that we could give. We built a community of content creators around the content, working with each other in trying to improve it, and that online studio has become more robust but still exists today at Current.com. We were really pleased that while it was indeed teaching, it was really fun. We had talent and hosts to talk about how you do lighting, how you do sound. We had guests from Robert Redford to all kinds of famous editors, and actors, and storytellers, and so it was as much entertaining as it was educational.

As we continued to build Current, we launched our first destination Web site in October 2007. That now has about seven million monthly unique [visits]; it’s one of the fastest growing social media sites on the Internet.

As a young man, Joel created a law firm to provide low-cost and convenient legal services to low-income families. He built a new kind of delivery system for legal services, believing that the promise of democracy is unfulfilled unless people have the ability to protect and enforce their legal rights. He went on to create Hyatt Legal Plans, making legal care a fringe benefit for employees, and sold the company to MetLife in 1997. He then taught entrepreneurship at Stanford Business School for five years, coming off the faculty to start Current with Al Gore.

Joel and Al noticed that the content on the Web combined top-down and bottom-up delivery. Traditional media organizations, which had embraced both the physical and the digital, were aggregating high-quality products from various places and delivering them in a top-down structure. Examples of this approach were the *New York Times* with NYTimes.com (see the interview with Arthur Sulzberger Jr., chapter 5) and CNN with CNN.com. They were also intrigued by bottom-up percolations like Digg.com, where people can discover and share content from anywhere



Current TV building
photo by BizStone/Creative Commons

on the Web, but noticed that they were limited almost exclusively to the technology-savvy community. They could find nothing that captured the middle ground, using the principles of bottom-up but also bringing the editorial and curation of the top-down. This could be a fertile opportunity for leveraging both worlds.

We thought that there was a very important value proposition in that middle ground. When you come to Current.com, you get the benefits of what a community thinks ought to be news, with the added value of a secret sauce of good editorial and curation, so that your take-away value is much higher. And we were really quite amazed that there was no one in the middle trying to provide a solid value proposition of allowing community involvement, engagement, and participation but providing really first-class editorial and curation.

Good democracies require good leadership. You know Winston Churchill’s great statement about democracy, “It’s the worst form of government except for everything else known to mankind.” Our view is that we’re building a democracy in the context of tremendous empowerment, engagement, participation, and feedback loops, but it won’t be really good unless we can provide good leadership for it.

Someone challenged me early on. They said, “You know, this is a network, a media company and Web site properties that are all geared to eighteen- to thirty-four-year-olds (let’s call

them twenty-somethings). But it can't be what the parents of twenty-somethings would like twenty-somethings to be doing. It's gotta be what twenty-somethings want to be doing." I understood what was being said to me back then. It's been a challenge to make sure that the programming decisions that get made here are for those demographics.

Current TV is the only television network with programming that is heavily influenced by its audience. Viewers create about 40 percent of the output, and the audience influences all of it. The example created by Current TV and Current.com has influenced media giants with feet in both worlds. For example, CNN has added iReport.com to its Web presence, with the slogan, "Unedited. Unfiltered. News." and the request to "Send us in some cell phone footage."

Not only did none of that exist, but in fairness to us, that part of the so-called journalism profession was derisive about these developments. They really scoffed at the notion of what Current was setting out to do, but we proved very early on how powerful the format is and how compelling it can be, and there is not a news organization in the country today that doesn't copy something of what we started.

The business model for Current has two revenue streams: A license fee is paid by the systems that carry Current into people's homes, such as Direct TV, Comcast, and Time Warner Cable, with 58 million households in 2008. The second revenue stream is from advertising, which supports Current.com and contributes to the television channel. Joel Hyatt's long experience as an entrepreneur has helped him to exert financial discipline. In 2006, its first full year on the air, Current TV was already in the black, making a little bit more the next year. The company has benefited greatly by starting afresh, without being encumbered by legacy systems, technologies, or thinking. Current installed an entirely digital infrastructure and has benefited from recent reductions in cost and new productivity tools.

The presidential debates in the 2008 election were naturally of passionate interest to Joel and Al, but they didn't like the format. The limitations imposed by a broadcast event followed by commentaries from pundits had caused the debates to become predictable, so they wanted to replace punditry with perspectives from real people, both



Obama and tweets on Current TV
photo by Mykl Roventine/Creative Commons

in the coverage of the debates and in the coverage of the election itself. Collaboration with Twitter gave access to what people were thinking and saying through their tweets, and Current TV displayed them in real time during the debates. The experience was much more lively because you could watch and listen to the candidates at the same time as reading how people were reacting to what they said. For the election eve and day coverage, Current TV worked with both Twitter and Digg in developing a new way of talking about the election, with participation by people from all over the country.

The world would have been a different place if in the last eight years we had Al Gore instead of George Bush, and we will pay a price for that for a very long time. Having said that, Election

Day was not only extraordinarily significant in a historical context, but it was also such a moment of hope and renewal for our country and for the world. To see the spontaneous reaction all over the world to what was done here in the United States was just remarkable. And we have a chance to lead the world again, to reinstill that peculiarly American sense of optimism, justice, and fairness. It's a very exciting time!

You can already see in the success of the Obama campaign the role of the Internet in engaging people and empowering people. I think we'll continue to see that the Internet's going to play a big role in governance. I'm very encouraged by how new forms of technology that offer new ways of communicating can add strength, and vigor, and vibrancy to our underlying democracy.

At Current, we set out to build a global participatory and cross-platform media company, but truly we are just at the tip of the iceberg. I mean, we're really just starting. We are already in the United Kingdom, Ireland, and Italy, but there's a lot more of the world to expand to for our television platform. There's also a lot of expansion potential for our Web platform, with more innovation to enable people to participate. We want to get our content on mobile phones. We're excited about what we've accomplished so far, but we really think we're just getting started.

We're launching a new unified cross-platform programming strategy, with channels for communities on the Web. Whether the topics are music, technology, culture, news, movies, or careers, those communities will actually be involved in helping to create a companion TV program on the same subject. Some will be in collaboration with Internet brands like Rotten Tomatoes, the wonderful movie review site that ten million people use every month. Together with them, we're going to build a whole community at Current.com around movie reviews, leading to a weekly TV show.

THE NEXT INTERVIEW is with Bruce Nussbaum. He has managed to achieve success in both worlds, by stepping boldly into the digital realm in starting the Innovation and Design channel online and NussbaumOnDesign blog for *BusinessWeek* and by bringing back the material from this new world to create a supplement for the print world with his quarterly *IN: Inside Innovation*.

BRUCE NUSSBAUM

Interviewed September 12, 2008



← Bruce Nussbaum
photos by author

BRUCE NUSSBAUM

As a managing editor for *BusinessWeek*, Bruce has become a leading voice in design and innovation in the world of business. After more than a decade as a page editor, he launched the Innovation and Design channel online and the NussbaumOnDesign blog in 2005. The following year he founded *IN: Inside Innovation*. In the inaugural issue of *IN* he declared a goal of making a meaningful difference in the difficult journey toward building innovative business cultures, hoping to inspire, to provoke, to teach, and to be a trusted advisor and guide. He also structured *IN* as a community, linking to the Innovation and Design site, with its blogs, columnists, metrics, and stories. Bruce has been a leader in bringing an online version of *BusinessWeek* into being, in parallel with the print version, and has a deep understanding of the comparative values of physical and virtual media. He is also an essayist and commentator on economic and social issues. In 2008 he was appointed as professor of Design and Innovation at Parsons The New School for Design in New York.

Bruce and I went to the same design conference in the fall of 2008 at the Arizona Biltmore hotel, which is dubbed “The Jewel of the Desert” and resplendent with Frank Lloyd Wright-influenced architecture and beautiful grounds. I recorded an interview with him under a magnificent tree in one of the green enclosures in the garden. He seemed to relish being so removed from the hubbub of his everyday life in Manhattan.



***BUSINESSWEEK*, BOTH IN PRINT AND ONLINE**

Bruce has had strong connections to the design community for two decades, writing cover stories about design for *BusinessWeek*. One was called “Smart Design” and another, more about the antithesis of smart, titled “I Can’t Make that #*@\$ Thing Work!” He encouraged connections between the magazine and the Industrial Designers Society of America (IDSA) and arranged for *BusinessWeek* to sponsor the organization’s annual International Design Excellence Awards (IDEA) competition, bringing good design to the attention of business readers. His interest in design was triggered in 1990 when he was covering international finance for *BusinessWeek* and was on a plane coming back from a financial conference in Switzerland.

It was late. It was dark. I had my glasses off and was dozing, when all of a sudden something hits my face; liquid. I wake up and I’m looking around and I think, “Something’s wrong with the plane!” As I put my glasses back on, I notice that people on both sides of the aisle keep popping up and doing the same thing, touching their face. Finally I focus and see this little figure. It was very bizarre. The figure turns around and starts coming back at me and I’m really frightened now. As she approaches I can see it’s a little girl, and in her hand she had this donut-shaped milk bottle. She had her little hand around it, and she was squirting all the adults, torturing them gleefully, and feeding herself.

She went up and down the aisle, and she got me again! And I thought, my God, how marvelous! Had it been a regular milk bottle she never would have been able to do that. Someone had taken the time to look at how very tiny tots actually hold

← [BusinessWeek](#)
photo by Nicolas Zurcher

a bottle and how difficult it is for them to do it and made one just for them—but of course it had unintended consequences. Not only was this little girl able to feed herself, but she was also able to torture adults, which was perfect for her. It gave her a great deal of power. So I did a story and we got a great response from our audience.

The three major business magazines in the United States with a long tradition are *BusinessWeek*, *Forbes*, and *Fortune*. *Fortune* is aimed more at top management, with a reputation for thorough analysis and reporting. *BusinessWeek*, started in 1929, has always attempted to explain how the world works to middle and upper-middle managers. It began by explaining government policy, as regulations were developed to lift the economy out of the Great Depression.

Bruce Nussbaum was busy with the editorial page throughout the nineties and well in to the next decade, expressing the point of view of *BusinessWeek* on all of the issues that they were covering. He also enjoyed writing about design as digital technology became pervasive. When the Internet boom swept the world, the editorial staff at the magazine started talking about the implications. The business community at first focused on the opportunities for business-to-business sales, but gradually realized that it would soon be relevant for business-to-consumer.

BusinessWeek's involvement was very episodic, creating an online presence and then pulling back because of a recession or objections from the people running the print side. As with most print media, middle-aged men and women, who remained ambivalent about funding an Internet-based venture, were making the decisions. Eventually the control began to leave them, because the advertisers were following the audience onto the Web, shifting dramatically from print to online. This forced the magazine to take their Web presence seriously and caused Bruce to participate.

I got involved in the online version of the magazine in 2005 for two reasons: One was that by the turn of the century the business community had realized that design and design thinking were critical competencies that they had to have, and I thought that I could use our online presence to expand the



BusinessWeek, Forbes, and Fortune
photo by Nicolas Zurcher

coverage of the topic. This was a long journey. I began covering design in the early nineties, but it was still, even ten years later, considered something that a few artsy-fartsy folks did to pretty up a new technology or device, to be thrown at the marketplace.

It was a decade-long slog to change that mentality, and during that decade design itself changed—it became much more complex and sophisticated. The processes of design became more formalized, and it became much more of a methodology that business could see and understand, so its impact on industry and commerce grew. You can design business models now. You can also design new processes using the tools and methods of traditional design. There was a new focus on the consumer, the user, rather than simply the technology. All that came together to create an appetite in the business community to learn more about design. There was a huge demand by 2005 from the *BusinessWeek* audience for more stuff on design, design thinking, and innovation.

The second reason for me personally was that we got a new guy in as the editor in chief of *BusinessWeek* who hated the editorial page, which was what I was really doing for my paycheck in the nineties. He came to me and said, “Bruce, I’m killing the editorial page, now what are you gonna do?” I’d been dying to try something new online, so at that point we launched the new Innovation and Design channel.

This was the moment when Bruce became an innovative designer himself, creating a unique approach to the channel that was different from anything *BusinessWeek* had ever done in print or online. In publications like *BusinessWeek* it is normal to use professional journalists to create material. The magazine has its own editorial and production staff, and staff journalists do the reporting. When the Innovation and Design channel was launched, resources were scarce due to a long recession, and Bruce wanted to try an open source system, so he set about looking for partners.

The one person I hired was Jessie Scanlon, who had worked at *Wired* for ten years. At that time she was in her early thirties and totally cool! She had spent time online, from its birth. Jessie and I, just the two of us, launched the entire channel. The way we did it was to partner with people. Core77 was our first partner, our terrific partner. We partnered for content, and we partnered for links, and in some cases we even partnered for revenue.

Today the partnership model seems obvious, but at that time it was a revolution for *BusinessWeek* to go outside the silo, to actually have relationships and to bring in content from other sources, not our own, and not our own journalists. That was a complete revolution, and it worked. And that is the model we use today. We’ve hired a couple of people to do some stories, but basically it is still an open source model with partners, and we even see our own journalists almost as partners now, in a network of sources to provide content and revenue.

This was the beginning of the realization that you could provide content to your readers by curating content and ideas that don’t necessarily have to originate inside your silo. Of course, editors have always played that role. They’re the ones who say,

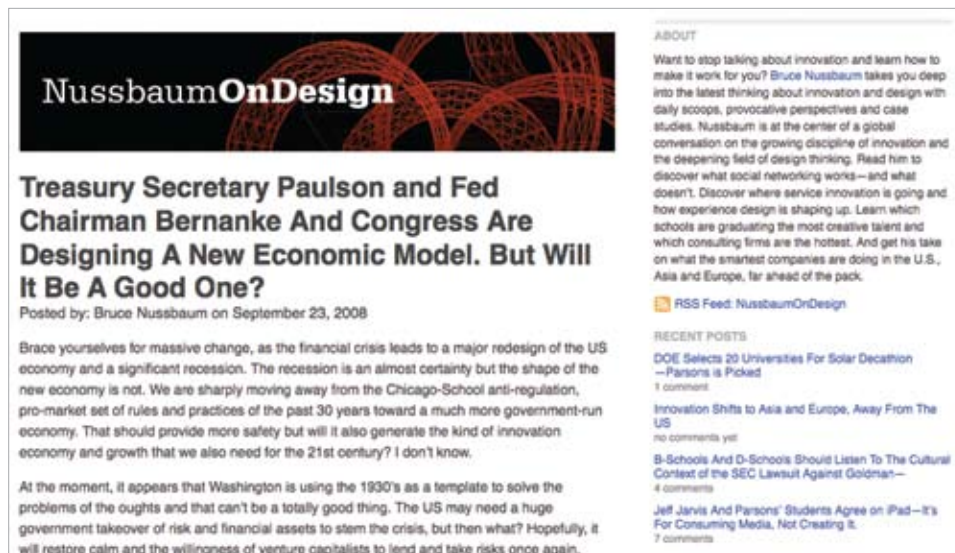
“We will tell you what is important in this sphere because we know you. You can trust us.” We took this to a different level and called it curating. This idea has begun to influence the rest of *BusinessWeek* and mainstream journalism.

The next step was to bring back the curated material that was collected in the new online world for the benefit of the printed version of the magazine. Bruce launched a new magazine within *BusinessWeek* called *Inside Innovation (IN)*, using the data and stories harvested online and presenting them in print form for the benefit of the members of the business community, who still rely on print for a great deal of their analysis and information.

We open-sourced a model for print within *BusinessWeek*—very interesting! At the very beginning, in our naive way, we thought going online meant taking print stories and simply putting them online. Everyone did that; the entire media did that, but very quickly we realized, especially from people like Jessie who grew up online, that people don’t want that. People want engagement. They want a real community. They want to participate and have an active conversation with you. The kind of journalism you do online should be very different from the kind of journalism you do in print. Lots of people are still forgetting that, but for us it became apparent very quickly.

Online journalism is interactive with dynamic engagement. The stories are always commented on, and then we comment on the comments, and the people who are doing the commenting will often comment to each other. Now we have videos to bring the conversations more alive. It is all much more direct than in print, which is a kind of conversation but much more static and flat. Those print journalists who are either young enough or open enough to the new, love it.

The conversational nature of online media is most obvious with blogging and Twittering (see the interview with Ev Williams, chapter 3). Bruce has always been adventurous experimenter, so when the new channel was up he was eager to try blogging. This led to the popular NussbaumOnDesign blog on BusinessWeek.com, which Bruce has thought of as his chance to learn how to thrive in the new medium, modestly claiming that he still has more to learn.



NussbaumOnDesign

Treasury Secretary Paulson and Fed Chairman Bernanke And Congress Are Designing A New Economic Model. But Will It Be A Good One?

Posted by: Bruce Nussbaum on September 23, 2008

Brace yourselves for massive change, as the financial crisis leads to a major redesign of the US economy and a significant recession. The recession is an almost certainty but the shape of the new economy is not. We are sharply moving away from the Chicago-School anti-regulation, pro-market set of rules and practices of the past 30 years toward a much more government-run economy. That should provide more safety but will it also generate the kind of innovation economy and growth that we also need for the 21st century? I don't know.

At the moment, it appears that Washington is using the 1930's as a template to solve the problems of the oughts and that can't be a totally good thing. The US may need a huge government takeover of risk and financial assets to stem the crisis, but then what? Hopefully, it will restore calm and the willingness of venture capitalists to lend and take risks once again.

ABOUT
Want to stop talking about innovation and learn how to make it work for you? Bruce Nussbaum takes you deep into the latest thinking about innovation and design with daily scoops, provocative perspectives and case studies. Nussbaum is at the center of a global conversation on the growing discipline of innovation and the deepening field of design thinking. Read him to discover what social networking works—and what doesn't. Discover where service innovation is going and how experience design is shaping up. Learn which schools are graduating the most creative talent and which consulting firms are the hottest. And get his take on what the smartest companies are doing in the U.S., Asia and Europe, far ahead of the pack.

RSS Feed: [NussbaumOnDesign](#)

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Jeff Jarvis And Parsons' Students Agree on iPad—It's For Consuming Media, Not Creating It.
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screen capture

One of the things about blogging is that it's hugely labor-intensive. You are creating a community, and you have to participate in that community. It's less about content and it's more about linking and having a conversation. It's really hyperengagement. You have to do it early in the morning, because most people blog when they get to work (quiet, you know). You have to be right in that conversation.

It's hugely enriching, because you're creating and becoming part of a global conversation about certain subjects. I really love it. I use it as the first iteration of an idea. I don't edit myself a whole lot. I get it out there. I've become more fearless as I've gotten older, so I'm willing to try something out and have people come back to me and say, "Crazy, stupid," or "It's really this or that," and "Yeah, that's great!"

I actually use it as part of my thinking process. I've expanded my brain in some ways around the world to engage other brains, and so we have a borgy brain thing going on about innovation in design. A lot of things are harebrained—they're really stupid! And of course people on blogs will tell you that immediately, but that's part of the fun. I've gotten into great debates with people on several important issues.

And now of course there's Twitter, which is micro-blogging and constant blogging. I've gotten deep into Twitter. I've created my own smart, social media algorithm that connects me to great news and analysis. And then there's Facebook. All these things are basically bloggy kinds of interactions with other people. You have to decide just how much interaction you want with people, because it can be a 24/7 kind of thing. It could eat up most of your creative juices. I find myself shutting it off every once in a while. I just say, "I'm stopping now! See you in a week." People get mad and angry and all the rest of it. But more and more bloggers are doing that because you need some quiet time to ponder some of these things and take your finger out of the socket—or at least I do.

As the Innovation and Design channel flourished, Bruce was able to expand the staff. He created a multigenerational team of people from a wide variety of backgrounds and nationalities. He was the oldest, with several people in their thirties and a couple in their twenties who gave a lot of jabs to the people in their thirties for not being *au courant* enough.

Of all the things that I've designed, the team itself is the one that I'm most proud of. I think it's the most important. The team itself is full of energy because they are so polymath in so many different ways. At times I lead, but most of the time I'm following. Each person has their moments when they're leading and following. It's very dynamic. We're learning from each other all the time. I think the design of that culture is what really makes things happen. We put out the online Innovation and Design channel; we put out the *Inside Innovation* magazine; we also work for *BusinessWeek*, and it's the same team. That's the future!

The economics of print media publishing are increasingly challenging, as so much advertising is shifting from print to online, with advertisers attracted to the enhanced possibilities for targeting a specific audience and measuring the results. The luxurious forms of print, such as glossy fashion magazines, remain relatively unscathed, but the business press is hard hit. Online channels like Innovation and Design are attracting more advertisers than they can accommodate, but the space for ads is limited and the revenue is much less per ad, resulting in a drastic drop

in total income for *BusinessWeek*, even when both print and online worlds are combined.

For every dollar of advertising that shifts from print to online, you're only getting about twenty cents online, because it's a very competitive market there. So even though the quantity of advertising online is surging, the amount of revenue you're getting is falling. The brand is suffering, and this is true for everyone, so it's a very difficult time.

The newspapers are going through the same thing. The *New York Times* Web site is fantastic; it's one of the top eleven sites in the world. It's got a huge amount of traffic, it's really well designed, and they do wonderful video stuff, but the amount of revenue the brand is getting is falling rather dramatically because they're losing expensive print advertising and only gaining less expensive online advertising. That will continue until at some point we reach a new equilibrium, and of course that changes the business model, so you have to do journalism at a much lower cost. That's the harsh struggle that's going on now in the business. Lots of people are getting laid off.

On my Innovation and Design team, we have six people who are able to do online journalism, print journalism, video, and blog. They do it all, they do it naturally, they do it at one price, and what they are getting paid is a lot less than senior print journalists make today. The business model for all mainstream media is changing rather dramatically.

It is much easier for new organizations and businesses to find the right balance between both worlds than it is for those with a long history of success in the traditional media. For many people who work at *BusinessWeek*, the changes look like failure, as they rely on growth, or at least stability, to stay viable. Laying people off and cutting expenses to balance a shrinking revenue stream can have a demoralizing effect, so that even when new roles and opportunities are opening up to compensate, the culture of the community may be damaged.

Bruce has an admirable resilience, perhaps fueled by his endless curiosity, allowing him to embrace the new world and flourish in it without breaking ties with the old world. He enjoys the democratization



Whitewater
photo by Doug Rivers/Morgue File

of open source, the acquisition of design skills by ordinary people, and the increase in the availability of tools for creativity. He remains an optimist and believes that the changes can lead to great things, to a new burst of creativity from elements of societies around the world that have always been outside.

Wherever I go to talk these days, whether among my friends at cocktails, at the beach, in the city, or for a formal presentation, we're all talking about the same thing. We're talking about all our business models melting down, our careers completely morphing, and our lives changing dramatically. There is a mixture of fear, and anticipation, and excitement in all of this discussion. And right now my major line is, "We live life in beta."

This is a period of intense change for all kinds of reasons: technological, global, political, and economic. I've always wanted to lead an interesting life, and here it is on steroids! It's a little terrifying, but it's a great journey. It's as if you are going down a river on a raft, and then all of a sudden, whitewater. That's even better. Then all of a sudden it's really whitewater.

That's where we are now. We're just surging away and you have a little control, but not a lot, and you're trying to navigate your way through this life.

Bruce has managed to achieve success in both worlds, first by stepping boldly into the digital realm when he started the online channel and blog, and then bringing back the material from this new world to create a supplement for the print world with *IN*. The challenge for *BusinessWeek* magazine, and many others in the magazine world, will be to adjust the cost structures of the print world fast enough to avoid a demoralizing effect on the staff. Even if the online version of the magazine grows steadily, if the revenue generated is less than a fifth of the amount coming from print, the adjustment to the business may be traumatic.

BRUCE TALKED ABOUT BRINGING JESSIE SCANLON aboard to launch the Innovation and Design channel for *BusinessWeek* online. Next we meet Jessie in a 2009 interview to learn more about her experiences both before and during the *BusinessWeek* venture and to understand her vision for designing for these changing times.

JESSIE SCANLON

Interviewed November 20, 2009



← Jessie Scanlon
photos by Dan DeRuntz

JESSIE SCANLON

Jessie writes about design and innovation. In 2005 she joined Bruce Nussbaum at BusinessWeek.com as the senior writer and editor for Innovation and Design. She wanted to create a strong new offering that would be truly innovative and well designed, but she found that the limitations of the preexisting website made it impossible to achieve many of her goals early on. The offering has gradually evolved to represent the initiative more successfully. Jessie decided to try journalism when her grandfather said, “You seem to like writing.” She had been studying Latin American politics and history, so she headed for Chile to give it a try, landing her first job at the *South Pacific Mail* in Santiago. She next joined *Wired* magazine, first as an intern and eventually becoming a contributing editor. Later she became a freelance writer, reporting on design and technology for *ID*, *Popular Science*, the *New York Times*, and *Slate*. In 2004 she was a writing fellow in the Simplicity program at MIT Media Lab in Cambridge, Massachusetts. Jessie is also the coauthor of *Wired Style*, a guide to writing and editing in the digital age.

I had often heard about Jessie's work and writings before meeting her in person, so I was thrilled when she suggested that we record an interview for a *BusinessWeek* podcast to talk about my recently published book *Designing Interactions*. We met in Boston in December 2006 at a restaurant where we could enjoy a lunchtime conversation before finding a quiet corner to record the interview. I was very impressed by her depth of knowledge and perceptive questions as well as her graceful manner. It was my pleasure to ask her to be interviewed for *Designing Media*.

A close-up photograph of a hand holding a black marker, writing the question 'What is innovation?' in a dark blue, cursive font on a white notebook page. The notebook is open, and a pink cover is visible behind it. The background is a light-colored wooden surface.

What is
innovation?

← [What is innovation?](#)
photo by Nicolas Zurcher

THE INNOVATION & DESIGN CHANNEL

Bruce Nussbaum had a clear vision for the Innovation and Design channel as a bridge between the design community and the business world. He wanted more interactive links than the traditional relationship, where the designer works to a brief provided by a business client or employer. The new channel was very close to launch when Jessie started, but the overworked staff of the design department had very little freedom because the design was dictated by the inflexible architecture of the rest of the BusinessWeek.com site.

Gianfranco Zaccai, the founder and president of the well-known design firm Design Continuum, sent in a list of critical comments right after the site launched, pointing out that it was cluttered, with unclear navigation systems and inconsistent labeling. Jessie remembers the frustration of launching an innovation and design site that was poorly designed and not so innovative.

I showed up on the first day and had the sense that as they had been putting this site together it had almost had a kind of grab bag feeling to it. I think they were getting very close to launch and they said, “Yikes, we need to bring somebody in.” Because while Bruce was the visionary behind it, he didn’t want to be involved in the day-to-day, as he travels a lot and he was still involved in the magazine. They needed someone to come in and handle the day-to-day aspects of actually running the Web site, which is an incredibly time-consuming job, as we were publishing daily. This was 2005. It was crazy! I took the job two weeks before my wedding, but I don’t think I talked to friends for a year after that.

The Innovation and Design offering was structured as a main channel with a collection of subchannels, including architecture, cars, games, and branding. The grab bag feel came from the lack of a clear organization for the subchannels. There was a sense that a lot of things had been thrown in as experiments for *BusinessWeek* to see which would gain popularity, but without a clear organization built around an understanding of innovation and design.

They were kind of dipping their toe in. What happens if we start writing about games regularly? What happens if we have this brand channel? What happens if we write about cars? The topic of cars was actually enormously successful. It generated a lot of traffic and to some extent spun out into an actual car channel later.

While Bruce had a very clear sense of what it should be about, some of the people who were more involved with the day-to-day decisions didn't really have the same understanding of "What is design?" "What is innovation?" They would encourage us to do all kinds of stories which to my mind weren't necessarily the kinds we should be doing. For example, when we first launched, there was a link to JD Powers auto ratings. JD Powers is a sister company to *BusinessWeek*, owned by McGraw-Hill, but there was really no real connection to design or innovation. It was just, "Oh, hey, cars. Let's throw the JD Powers rating in there."

People seemed to have different ideas about what design is, misconceiving the role played by designers, what design does, and what is its impact. There was some tension in those early days, not between Bruce and I, but in relations with some of the other people. I reported to the editor in chief of *BusinessWeek* online, who is wonderful in many ways, but there was some tension. There was this sense that, "Oh, if we're covering architecture, we should do real estate as well."

Ultimately, even if the editor in chief was suggesting, "I think this would be a great story for you, I think you should really do it," I had a lot of autonomy. So it really was just up to me what I wanted to put up, what I wanted to publish, whether I wanted to publish it or not. I obviously took a hit in terms of



"Prefab Chic" article and slideshow from [BusinessWeek.com](https://www.businessweek.com) screen capture

traffic if something was pushed on me and I said "no" and then it did very well elsewhere.

It was really hit-and-miss to a large extent, with lots of surprises. For example, we did a story on *Dwell* magazine's well-designed prefabs, with a slide show. It was so popular that we had six or seven million hits, actually shutting down the server of the company that was offering the prefab houses. Who knew? It was just so hard to predict at that point what story was going to do well.

It was challenging to create content that would appeal to people interested in design as well as those focused on innovation. At that time the overlap was not generally understood. People thought that innovation is driven by business and technology, while design emerges from a synthesis of human values, particularly subjective qualities, like aesthetics. Bruce and Jessie had the vision to see that innovation is most likely when technological feasibility and business viability are combined with the human values of usability and desirability, but that concept of overlapping interdisciplinary contributions was not widely accepted at the time.

With the benefit of hindsight, Jessie thinks that they could have done more to understand their target audience in advance. Over the years they have moved away from the idea of providing a bridge between design and innovation, seeing themselves as focused on talking to

people in business who have a broad approach to innovation, including not just design-driven innovation but also process innovation, new business models, and so on.

It would have been much easier had we been working with a blank canvas. The *BusinessWeek* Web site already had a top news page, covering technology and investing. There were templates defining how every page had to look and how you could structure data, which made it very difficult to develop new designs that might have made more sense for our channel. Our audience had very different expectations from the readers of the Investing channel.

All Web designers struggle with the issue of templates. Khoi Vinh, former design director at NYTimes.com, and I know he's talked a lot about the systems that you need to be able to throw up so many stories every day. The *New York Times* couldn't have somebody designing every story page, so they need templates, but it takes away the chance to lay out a story with a unique design that make sense for that particular story.

If you look the design of Apple's iPhone apps, they've injected their graphic design, or interaction design DNA, into the tools that the software developers are using to create the apps. They are passing on some of their design skill and making it much harder for a software designer who doesn't have training in design to create an ugly app. Most of the tools and systems that underlie BusinessWeek.com or NYTimes.com were not developed by design-focused companies, so those tools didn't naturally lead to good-looking, well-designed experiences.

I hope that the situation will improve. I can imagine digital magazines with thin flexible screens that are almost like paper, feeling like paper as you're flipping through them. I can imagine a system where you could change layouts much more easily, where you could pull things around, or drop a photo in. It strikes me that the tools that designers have now are so crude, especially based on those early days at *BusinessWeek* online.



Roger Martin
photo by Jordan Fischer/Creative Commons



Tim Brown
photo by Nicolas Zurcher

After a year or so, they redesigned the pages, but that was a four- or six-month process. I wanted to be able to walk over to the art department and work with the designer to whip some things around on the computer screen, so that we could look at the layout and say, "Oh yeah, that works better!" You just couldn't do that. We didn't have that kind of flexibility. Especially for a site that was about innovation and design, that was very difficult.

The Innovation and Design channel has consistently been among the most popular five channels on Businessweek.com. Jessie has discovered that people love stories about big companies, but they don't want stories that claim, "Hey, this was a great innovation!" as much as descriptions about how the innovation was actually achieved, so she has shifted toward a case-study approach. The recession of 2008 caused budgets to be cut or trimmed, making people cautious about spending money on innovative projects. When they move forward, they want to be careful. This has increased the interest in how-to stories that hold the reader's hand and say, "Here's how this company did it, and it worked," so that they can then take it to their supervisor, their boss, or manager, and say, "Look, we can do something like this."

BusinessWeek was a pioneer among business magazines in writing about both design and innovation, with columnists such as Roger Martin from the Rotman School of Management and Tim Brown from IDEO. There is more competition now, with articles in *Fast Company*, *Forbes*, *Fortune*, and the *Harvard Business Review*, so the Innovation and Design channel has to be better, smarter, and faster to keep traffic levels up.

There are lots of innovation and design blogs, such as Design Observer.com, with contributions from a host of influential designers, or *Logic + Emotion*, where David Armano writes about branding and social media. A magazine like *BusinessWeek* tries to achieve an objective vantage point, aiming to be accurate and well reported, with information verified by fact checkers. Blogs are different, in that there is much more room for editorial voice and opinion, as the reader expects the content to be based on a stream of consciousness from the author. BusinessWeek.com positions itself between the magazine context and a blog, looking for a balance between traditional journalistic values and the opportunities to connect more directly to the audience and engage readers. For example, they have a regular feature called “The Reader Recommended Story,” which aims to increase interaction and build a better connection between reporters and readers without becoming a social media site. They also have a feature called “Five Questions For,” where they post an announcement that they will be interviewing somebody and use the questions that come in from readers in a video interview, which is then posted online. This gives readers a direct conduit to people they would not normally be able to ask questions of and interact with.

ONLINE VERSUS PRINT

Journal content works best when it is modified to suit the strengths and style of a particular medium. Print stories can be longer than their online equivalents because people have more patience to read longer pieces in print than they do online. That said, many people read a magazine online, and to them it’s seamless. They have no sense that “this is an online piece” versus “this is a magazine piece.” For a blog, you want more of a sense of the author, allowing their personality to come through. They can be more intimate and chattier, but they also need to get to the point right away. A two-paragraph lead on a blog post loses the audience.

Blogs, podcasts, and videos are more personal than traditional news reports or articles, so there is a trend for the brand of the reporter to become more important than the brand of the overall institution, with star journalists building a name across media. There are exceptions to this trend, such as *The Economist*, which speaks with one voice without star reporters. Jessie is not sure how this is going to end up.

I would have bet on the idea that reporters and writers are going to have increasingly strong brands working across media, but you certainly see *The Economist* being a counterbalance to that. At *BusinessWeek* Stephen Baker, who had been at the magazine for decades, led the magazine into blogs. He was one of the first magazine writers to be blogging very successfully, writing about Twitter. He’s been very engaged in every new technology that comes along, linking it to his job and understanding how it changes his job, how it gives him new capabilities. All of a sudden you’re blogging about the story you’re writing and you’re not just calling ten sources or twenty sources. You have this vast platform of people who are chirping up, offering their opinions, critiquing your work, and pointing you here and there. Chris Anderson wrote *The Long Tail* almost as he was blogging about it. He was blogging about the book, and getting advice, and getting pointers. John Battelle did a very similar thing with his book on Google—had a blog that was all about search.

It’s obviously easier to blog with books than with magazine articles, because your competitors can be reading that blog and it’s really easy to get scooped, but I think more and more reporters are deciding that that’s probably a chance worth taking because it’s strengthening their reporting skills, their reporting world. I think there’s also a sense that blogs have a legitimacy, so once you have it up on your blog, even if someone beats you into print, you were still the one who broke the story. Blogs were not considered serious media initially. There was a period of thinking, “Oh, he’s just a blogger.” And I think that’s really changed.

Not only are all of these technologies that underlie media changing, the business models are changing. They have to change. And readers are changing. As traditional magazines and newspapers have struggled financially in the last few years, it’s become much more difficult for them to be so dismissive of the Internet because some of the most successful media operations are now blogs or Web sites.

I think it’s really hard to know where we’re going to end up, but I don’t think it’s going to be uniform. If you look historically at

different media models, you had very expensive newsletter-type publications that sold for hundreds or thousands of dollars a year, most of them paid for by corporation's expense accounts. Advertising has supported most print media, with the purchase price hardly covering the mailing costs. Now we are seeing a steady shift of advertising dollars online, as advertisers see the benefits to them of knowing more about the behavior of their audiences.

The market for advertising was decimated during the recession of 2008 and 2009, both for print and online, but the shakeout set the advantages and disadvantages of each medium into sharper relief. In the early years of the growth of the Internet, companies and organizations were transferring their print materials to the screen with little regard for the design attributes of the interactive medium, so that readers were forced to browse endless pages of material that were not designed initially for screen resolutions and failed to take advantage of the interactive navigational attributes of the Internet. Gradually the opportunities to provide links, appropriate navigational structures, and interactive behaviors became more commonplace, so that now we see online materials presenting information in different formats than their printed equivalents, even when the text stream has the same words.

At last we are seeing clear differences between print and online versions, with print enjoying high-resolution images, voluptuous typography, and large well-composed pages, while online designs are rich with video, audio, blogs, and links to other material. People will continue to expect online material to be apparently free, supported only by advertising, while print materials will respond to the reduction in advertising revenues by being designed to command higher prices, using better materials and beautiful designs. Print media will tend to converge, so that it will be harder to say, "This is a magazine, but this is a newspaper," as they will be produced more intermittently. Daily newspapers are likely to become weekly special editions in print, with their online versions produced in a continuous real-time stream for news content. Jessie predicts increasing diversity.

Blogs are already an incredibly diverse universe. You have everything from individual bloggers writing about specific interests that they are passionate about, to groups of bloggers doing some original reporting and linking with each other and



The beauty of print
photo by Katja Battarbee

other sources of information. I think we'll ultimately end up seeing micro payments, where you don't have to subscribe to an entire magazine or newspaper, but you automatically get charged a few cents every time you click on an article. It's going to be an evolution. The economy really needs to recover before we can even think about how it's going to settle down.

This year it's Twitter, but we don't know what's it's going to be next year. Not only is the technology changing, the business models need to change and adapt to the new technologies and to changing reader habits. My parents' media diet was not that different from that of their parents. My daughter is two, and her media habits are going to be completely different from the ones I grew up with. It's just going to take a while for that to really shake out, to figure out what works and what doesn't.

I was at a conference recently at MIT and someone from Facebook was there talking about a big redesign they had about a year ago. He talked about the role that design has played at Facebook and at MySpace. I don't know if you've gone to a MySpace page. It looks like a middle-school girl's locker. It is cluttered, messy, thrown up there. It's ugly. Facebook has very intentionally tried not to do that. It has tried to create a template that, while giving its users control, ensures that the result is visually pleasing. I think we ultimately will probably see more of that.

The contrast between a site like the HuffingtonPost.com and TheDailyBeast.com maybe tells you something about where we're headed. The *Huffington Post* emerged out of the blogging community, as Huffington wanted to create a place where people could have a platform, even if they didn't want to start their own blogs. *The Daily Beast* was started by Tina Brown. She came out of the magazine world—glossy, very high production values, and you see that, I think, when you go to their site. It's very beautifully designed, you know, templates, et cetera. It's online but it has a more polished design than the *Huffington Post*, which kind of reflects the blogosphere from which it emerged.

So back to my point about what is the place we're going to end up. We'll probably end up with both of those. You're going to end up with blogs that do have more of a polished, edited kind of feel—a professionally designed kind of feel. You'll have the personal blog, and you'll have the *Huffington Post*, which is a little rougher around the edges.

OUR NEXT INTERVIEW IS WITH JANE FRIEDMAN, who lives for books, authors, and book publishing. Throughout her marketing career at Random House, the world's largest English-language trade publisher, and as president and CEO of HarperCollins, she has harnessed the new world of electronic media in support of the traditional world of books. She describes her many achievements in both worlds but also warns of the financial instability inherent to book publishing in the United States as it is currently structured.

JANE FRIEDMAN

Interviewed November 13, 2008



← Jane Friedman
photos by author

JANE FRIEDMAN

Books and authors are part of Jane Friedman's DNA, and she is confident that there will always be books. At the same time, she sees the reading experience changing dramatically as electronic media mature. Throughout her career in book publishing, spanning four decades, she has led the way forward with innovations enabled by emerging technologies. She was executive vice president of Random House and of the Knopf Publishing Group, publisher of Vintage Books, and founder and president of Random House Audio Publishing. She is credited with inventing the author tour, making audio books successful, and leading the industry toward exploiting the Internet, saying, "I'm a marketer. The ability the Web gives you to reach thousands of people by pushing a button is a marketer's dream." From 1997 to 2008, she was the president and CEO of HarperCollins Publishers Worldwide, one of the world's leading English-language publishers. She expanded its international reach in China and in India. In 2009 she founded Open Road Integrated Media to publish the early works of big-name authors in electronic form.

I visited Jane Friedman in her Upper East Side apartment in New York to record the interview. At first she showed me into her living room, a sparse but carefully designed space with marble flooring and matching walls in a delicate texture. This seemed a little impersonal for the interview, so I asked her to show me around. We entered a library, the walls lined with books—the perfect backdrop for communicating her passion for books and publishing. I set up the cameras there. On a shelf by the window there was an architectural model of her beautiful house in the Hamptons, close enough to complement city life on most weekends. Next to the library was a small office containing her computer, where she admitted that she spends a great deal of her time, saying, “I’m an email fanatic!”

BOOK PUBLISHING

Jane spent most of her energies in the first two decades of her career supporting review coverage of books with off the book page coverage to make them sell better and talking to her colleagues about words, books, and literature, but she was always interested in the possibilities that were opened up by new technologies.

I thought it would be appropriate to use the electronic media, in those days radio and television, to promote the authors. I am credited with inventing the author tour. I say I am credited with it because years before a very commercial author called Jacqueline Susann went around America with books in the trunk of her car; that was the original author tour. What I did was take some quite literary authors and work with television and radio talk shows and newspaper interviews in various cities. That was the beginning of the author tour as we know it today.

The actual launch was with Julia Child, the French chef. I like to tell the story of going to Minneapolis and looking out of my hotel window and seeing 1,000 women lined up (and they were all women) outside the local department store at seven in the morning, waiting to go upstairs to watch Julie Child make mayonnaise. They had learned about this event from a big story in the *Minneapolis Star Tribune* the day before, and they had heard that Julia was going to be in Dayton's department store because she appeared on radio and television the day before as well. This was my first entrée into the world of electronic media.

In 1985 I was asked if I wanted to start an audio books division for Random House. I looked at the person who asked me and

← Julia Child's *The Art of French Cooking*
photo by Nicolas Zurcher

said, “What is an audio books division?” He looked back at me and said, “I don’t know. But we know that there is this small company in California called Books on Tape.” (By the way, it is no longer small and actually has been acquired by Random House.) In those days it was more of a mom-and-pop shop that would license the audio rights to our books, hire little-known actors, and have the actors read the words of the author. All of the audiocassettes were sold through a catalog on a subscription basis, and we didn’t see many royalties.

So I said, “Sure, I’ll start this audio books division.” I remember that Barnes and Noble thought I was out of my mind and gave us one shelf for the entire audio books business. Now, of course, audios have morphed from cassette, to CD, to downloadable, and the audio books business is a billion-dollar business. To me, it always seemed logical that it would succeed because I had read to my children, and I had been read to. I didn’t understand why we had lost the art of hearing the words spoken. I found that fine actors were very willing to go into a studio to read wonderful words of literary writers for scale, so we had a business model that actually worked.

After almost thirty years at Random House/Knopf, Jane was invited by Rupert Murdoch to join HarperCollins as president and CEO, with a brief to revive the flagging fortunes of a company in trouble. It was a global organization with a wonderful history of almost two hundred years, but it had lost its way; so this was a perfect opportunity for Jane. Her first task was to improve the financial performance. She reveled in the responsibility and the fact that when you are in charge you can experiment as long as you deliver a profit for your owner. This led to looking into the digital world. She wanted to protect the rights of the authors and the copyrights, so she invested in a digital warehouse, where all of the digital files reside, with access given to search engines. HarperCollins would stay in control of the copyright and the copyrighted material.

During her tenure at HarperCollins, Jane achieved years of double-digit profitability, which is unusual in publishing. She focused on finding experts in cost containment and cost control and resisted chasing the best seller. She sees financial challenges facing the whole industry today.

The financial model of the book publishing industry is flawed and unworkable. The model of having books fully returnable comes from the Depression. What happened then was that publishers were not able to sell their books into bookstores so they said to booksellers, “Take them on consignment.” And that has continued to this day. Well, it’s a broken model. A publisher cannot take the risk of the cost of paper, printing, and binding, the overhead costs, the inventory that you hold, the inventory that you send to the bookstores, and the inventory that you ultimately take back. This is the way publishers have lived their lives.

The advances that publishers have been paid over the years have just gotten out of hand. I understand competition. I understand wanting to get the big book. But my way of publishing has always been to build up the “mid-list” author and really exploit the backlist, which is the backbone of a publishing company. And then, if you have one or two authors who are in that top-ten tier, okay, but most probably in the final analysis, you aren’t going to make money on those titles anyway.

In my opinion, chasing the bestseller is something that just cannot continue. I believe all publishers today are looking at lowering advances, which might be able to be done if the entire community decides to do it. The agents can explain to the authors that it’s not that the author’s worth is diminished; it’s just that the model doesn’t work anymore. Publishers are not banks. So if the author wants to be published at a traditional publishing company, he has to get with the program.

The digital world is going to help us with the problems of inventory and returnability because a digital book does not require paper, print, bind, or huge stacks of copies. A digital world doesn’t require actual foot traffic into a bookstore, which means that consumers don’t have to fill up their gas tanks to get to the bookstore. I do not mean to say that there won’t always be physical books. You’re sitting in my library. I could not live without being surrounded by books. But the format of the book is changing. America is one of the only countries that still produces hardcover books. The profit and loss statement in



← Surrounded by beautiful books
photo by Nicolas Zurcher

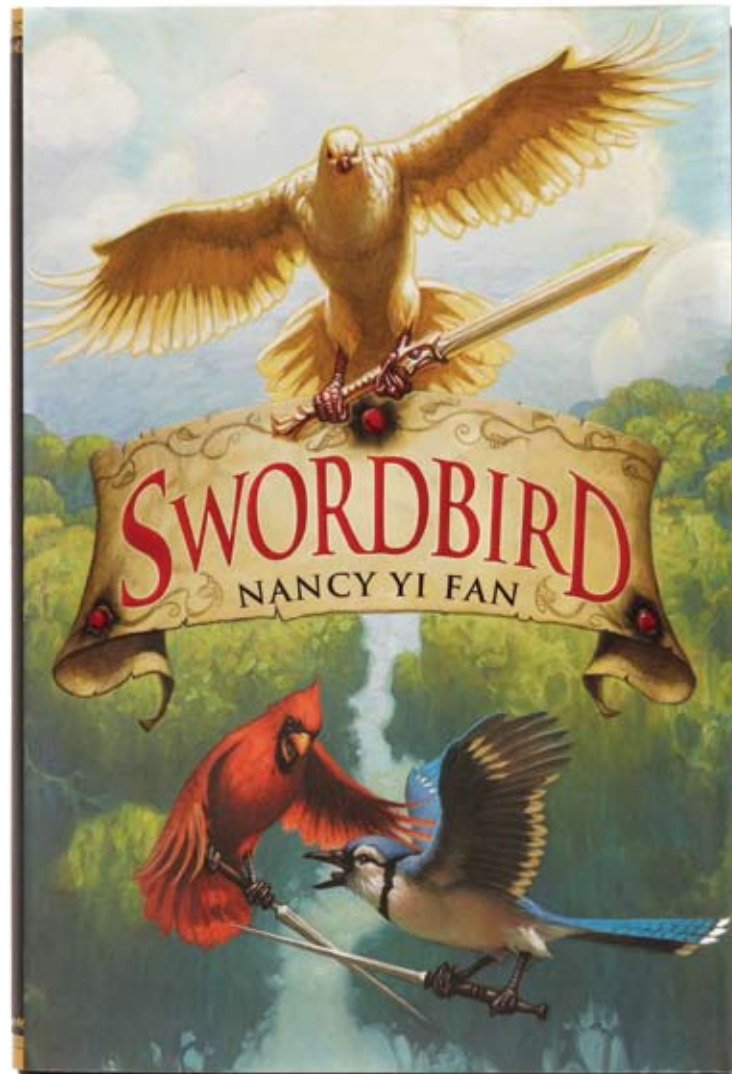
America is built on hardcover publishing as the first format and supposes a profit from that hardcover edition.

HarperCollins has long had a well-established international reach across the English-speaking world, but many of the satellite offices were no more than distributors of British and North American titles. Jane decided to build up local publishing, starting in Australia, Canada, and India. China was more intricate. She saw tremendous opportunity in bringing Chinese literature to the English-speaking world and in return publishing English books in China. She made good progress in spite of piracy being rampant and government censorship being paramount. She was a consultant to the part of the Chinese government that deals with culture and felt that she was really making headway.

Just a lucky happenstance is that I was a CEO who read all my email. I am always looking for instant gratification. A manuscript came to me on email from a young woman. She said she was an eleven-year-old Chinese girl. I opened the file, started to read and thought, “This is really quite good.” I immediately forwarded it to our Children’s division. and they loved it. They also did some research and found out that yes, indeed, she was an eleven-year-old Chinese girl who lived in China and in America. The book is called *Sword Bird*. It was published in English and Chinese. I went to China with the author and this became one of our first “crossing the bridge” moments. Nancy Yi Fan is a prodigy; there’s no doubt about it. She writes, draws, and practices sword fighting. It was quite a positive experience to be with her in China. The Chinese government obviously liked this.

It was difficult to open an office in China, but News Corporation already had one there, so Jane was able to lease some space from her colleagues and share some of the expertise of those who had been there before HarperCollins.

I think social networking is a good way to learn about things one is interested in. What is social networking but word of mouth? I’ve always said there is nothing new under the sun. However, the difference is that with word of mouth in the past, a potential customer had to walk into a bookstore to make



← *Sword Bird*
photo by Nicolas Zurcher

a purchase. Social networking today requires only a click. That's the difference in a nutshell. I don't think the process is different. People talk to one another, saying, "Do you like these clothes? Do you like these books? Do you like these movies?" "I don't!" "Why don't you?" "I want to see you; I want to go out for a coffee, so maybe we can meet at the local bookstore." That's still going on. But for purchasing, social networking is making the product purchase one click away.

Amazon is brilliant. I've been a fan of Amazon from the beginning. Jeff Bezos came to Random House early on. I met with him and a few members of his team, and I believed in what he was trying to do. This was when people were afraid that their credit card numbers would get stolen and everybody would be bankrupt.

What I am concerned about, like all publishers, is whether Amazon will disintermediate the publishers. Will it eventually be where authors want to be published? At this point in time this is not a major problem, but depending on how the marketplace plays out, who knows?

So, am I a fan? Yes. Do I use it? Yes. Do I like its recommendations? Yes. Have I bought a book on a subject that they suggested? Yes. Their algorithms are smart! But I don't want them to be the only game in town.

We now know that the consumer really wants to be told what's available and how she can get that material, whether electronically or in physical form or over the phone lines. I do believe that marketing online will help defray a lot of marketing costs. I think one-to-one recommendations is very important, taking word of mouth to the nth degree. Print-on-demand technology is becoming more and more important in publishing. Publishers have to conquer the inventory problem, and I think print-on-demand is one way to do so. I believe that authors will start to communicate online directly with their fans, and that connection will become more and more



Oprah's Book Club seal
photo by Nicolas Zurcher

important. I think that this connection between the writer and the consumer is going to get very, very close.

I have heard that Oprah Winfrey is going to end her show in 2011. If that's a fact, publishers had better figure out what to do. She has been the single most effective salesperson for a book since I have been in the business—she gives her viewers permission to read, and then shares the experience with them. This is an incomparable big deal.

Jane believes in books as a basic element of civilization. She thinks that people want home libraries because they want their children to see books in the house. Her ability to move fluently between the traditional world of books and the new world of digital technologies is illustrated by the way she welcomes the arrival of the electronic book. She thinks of the e-book as complementary to, rather than competing with, the paper book.

Physical books will not disappear, but the reading experience will change dramatically. I've tried Kindle, the Sony Reader and nook. My first experience with an electronic book was with a product called the Gemstar RocketBook. I remember going to Barcelona and bringing a stack of books with me, and my partner came with his reading material on the RocketBook. I was fascinated to watch him read.

And now Steve Jobs has brought us the iPad, a handheld device that is as aesthetically pleasing as the iPod. Perhaps the iPad will be the tipping point. Or perhaps something else that is more technologically attuned and less expensive is on the drawing board right now. All I know is that all these products will absolutely get better and better with time. And I am truly excited to see the future.

OUR NEXT INTERVIEW is with Martin Eberhard, who founded the company NuvoMedia to create the RocketBook. The rest of this chapter looks at several early and current examples of electronic books to understand more about how e-books will relate to and change the nature of traditional books.

E-BOOKS

Why would anyone want an electronic book? After all, a paper book is so wonderful! It's easy to carry around and very robust. The contrast ratio is excellent, and no batteries are needed. The resolution is 300 dots per inch in black and white or color, so that we can see images clearly and details of the fonts are crisp. It is a delight to browse through a book since you can flip the pages at any speed you like, stop at any point and open the spread, or turn one page at a time at a leisurely pace, reveling in the smooth and supple feel of the paper. You can enjoy a delicious moment as you open a new book and the smell of fresh ink and paper wafts around you. And all of this for such an amazingly small amount of money. Yes, this is a highly evolved medium!

The experience of reading an electronic book is not nearly as rich for sensual enjoyment, but it does offer unique and different advantages. Most often quoted is the example mentioned by Jane Friedman, of the traveler struggling with a pile of heavy books compared to the single e-book with all of the equivalent material loaded into it. There are other advantages for work or study. If you want to extract quotes to use in writing a paper or commentary, it's easy to copy them into a file format that can be transferred to your personal computer. You can add annotations without feeling guilty about defacing the pages, and you can use search functions to find the bit that you want to see again.

Electronic books are coming of age. The twenty-year hockey-stick curve of adoption that Paul Saffo (*see the interview with Paul Saffo, chapter 1*) talks about has not quite yet run its course, so the e-book may not be fully mature, but the promise of its viability is much more credible.

The e-book will never replace the printed book, but it will be used in parallel to offer those complementary advantages. We will soon find people who love books and have collections of them in their homes also owning an e-book or two for use on the road or for a specific work task. To begin with, we go back to an early version of an e-book in an interview with Martin Eberhard, the creator of the RocketBook, which was introduced in 1998.

MARTIN EBERHARD

Interviewed July 27, 2009



← Martin Eberhard
photos by author

MARTIN EBERHARD

Martin was the CEO of NuvoMedia, which he cofounded with Marc Tarpenning in 1996 to develop an electronic book, believing that the emerging technologies at that time would make a successful design possible. Martin had started his career at Wyse Technology as an electrical engineer developing a character-based computer terminal. He went on to become chief engineer and a member of the founding team at Network Computing Devices (NCD), making X Window-based network terminals. After the RocketBook from NuvoMedia was successfully launched, Gemstar acquired the company in 2000. Martin then decided to focus on green technology, cofounding Tesla Motors to develop an all-electric sports car, taking the role of CEO, with Marc Tarpenning looking after the operations. The Tesla Roadster was launched in 2008, with a range of 240 miles on a single charge, dramatic acceleration of zero to sixty miles per hour in 3.9 seconds, and the equivalent energy cost of 120 miles per gallon. The largest investor, Elon Musk, ousted Martin in 2007 and proceeded to defame his reputation, causing Martin to fight back with a blog and sue. The lawsuit was settled in August 2009, and Martin has moved on to help VW Audi with its approach to greentech.

I have lots of personal connections to Martin Eberhard, so it was easy for me to ask him for an interview. He lives two doors away from me in the hills above Silicon Valley, and I often see him driving his Tesla Roadster (VIN #2) along our precipitous access road. I worked with him closely in the early start-up phase of Tesla Motors as a member of his advisory board, with a remit to establish a design brief and find the best people for the design work on the Roadster. Before we became friends, I also knew him as an entrepreneur for his work on the RocketBook and at NCD. Jim Sacherman created the industrial design for both those ventures. I had taught Jim when he was in the design program at Stanford, and he had worked with me when he graduated. It's a small world!



← Electronics at a café in the mid-1990s
photo by Ken Usami/Getty Images

THE ROCKETBOOK

In 1996, after they had left NCD, Martin Eberhard and Mark Tarpinning were doing some consulting work for Silicon Valley companies, but they were bored. They spent a fair bit of time hanging around coffee shops, drinking caffeinated beverages and thinking about what they would like to do next, knowing that they wanted to start a company. As they brainstormed for ideas, the theme of mobile technology kept recurring. It was just becoming possible to get some real computing power into a handheld, together with enough batteries to make a device that could be used for long enough without recharging. They were both early adopters of the Palm Pilot and café users of laptop computers. Sitting around with this collection of electronics on the table in front of them triggered the e-book concept.

The new possibilities with this new technology made us consider electronic books. We both traveled a lot and we were both big readers. As we were sitting in the cafés, enjoying our cappuccinos and doing our email and whatnot on laptop computers, we were increasingly aware of what was possible to put in a handheld piece of electronics. The computing power was now at the threshold where you could actually run some real software. Batteries were good enough that electronic gear would run for a usable amount of time. The Palm Pilot was a useful enough PDA to be successful. One of the questions we had was, “Would people really read for any significant amount of time on a screen?” In the end, it came down to the screen. As we were thinking about the idea of electronic books, we decided that was the main problem to solve.

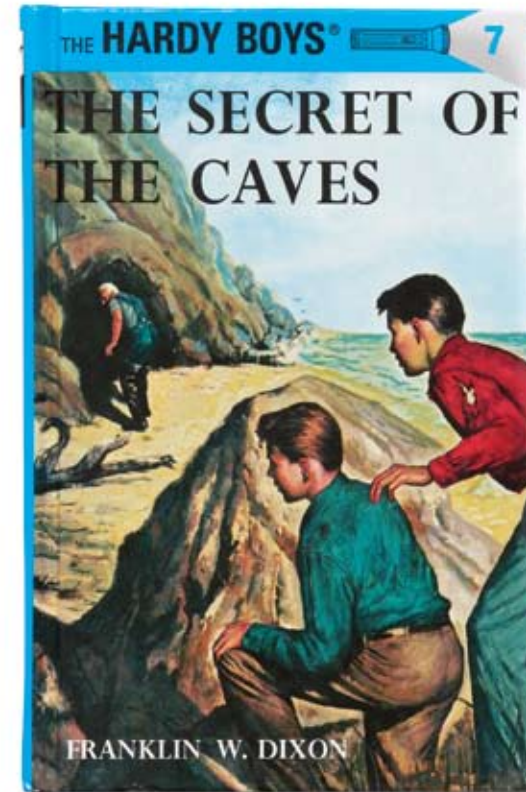
In their spare time they surveyed the manufacturers of screens in all the available technologies, to see what was real and what was actually readable. They found a lot of technologies that were either too immature,

like electronic paper, or were difficult to read, like most LCD screens and all color screens at that time, as the color separation on the pixels took away the crispness of the type. They settled on a screen technology from Sharp that was called DMTN, a diode-matrix LCD display with excellent contrast ratio, no flicker, and an acceptable price. It also worked with the backlight both on and off, so that you could read it in bright light with low power consumption, and turn on the backlight to use it in dark surroundings. This was the key to their decision to start NuvoMedia to develop an electronic book.

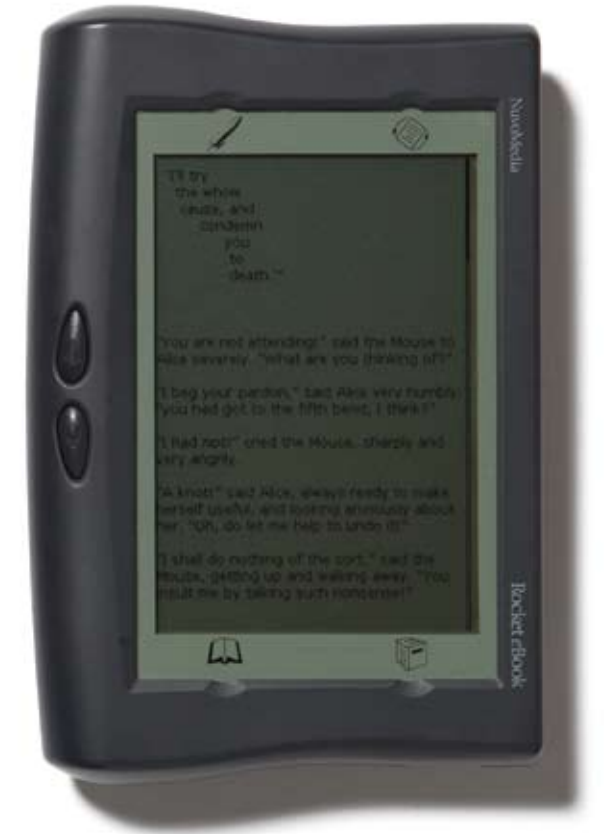
How do you deliver a book from a bookstore into an electronic reader? That was the most challenging business problem, not just about the technology behind delivery, but also about protecting against theft of the intellectual property. At that time people in the publishing industry were absolutely paranoid about losing revenue—they had recently seen what happened to the music industry with Napster, the free online music file-sharing service created by Shawn Fanning in 1999. The Internet provided the communications infrastructure, but Martin and Marc became very serious about cryptography, both to stop people from downloading books without paying, and to convince publishers to release their front-list books in electronic form for the first time in history.

They developed a solution that allowed owners of the RocketBook to browse online bookstores from their personal computers, choosing from a library of books available in RocketBook format. When they clicked on the Buy button, a typical book would take about two minutes to download to the computer in encrypted form. All of the titles on their computer remained encrypted, only becoming readable when they were selected from the specific RocketBook that was paired with that computer. The computer provided storage and Internet connectivity, and the RocketBook would hold up to thirty titles at a time for portable use, transferring quickly when docked, and syncing any markups back onto the computer to save them for next time.

Martin enjoyed leading the development of the physical design of the RocketBook itself.

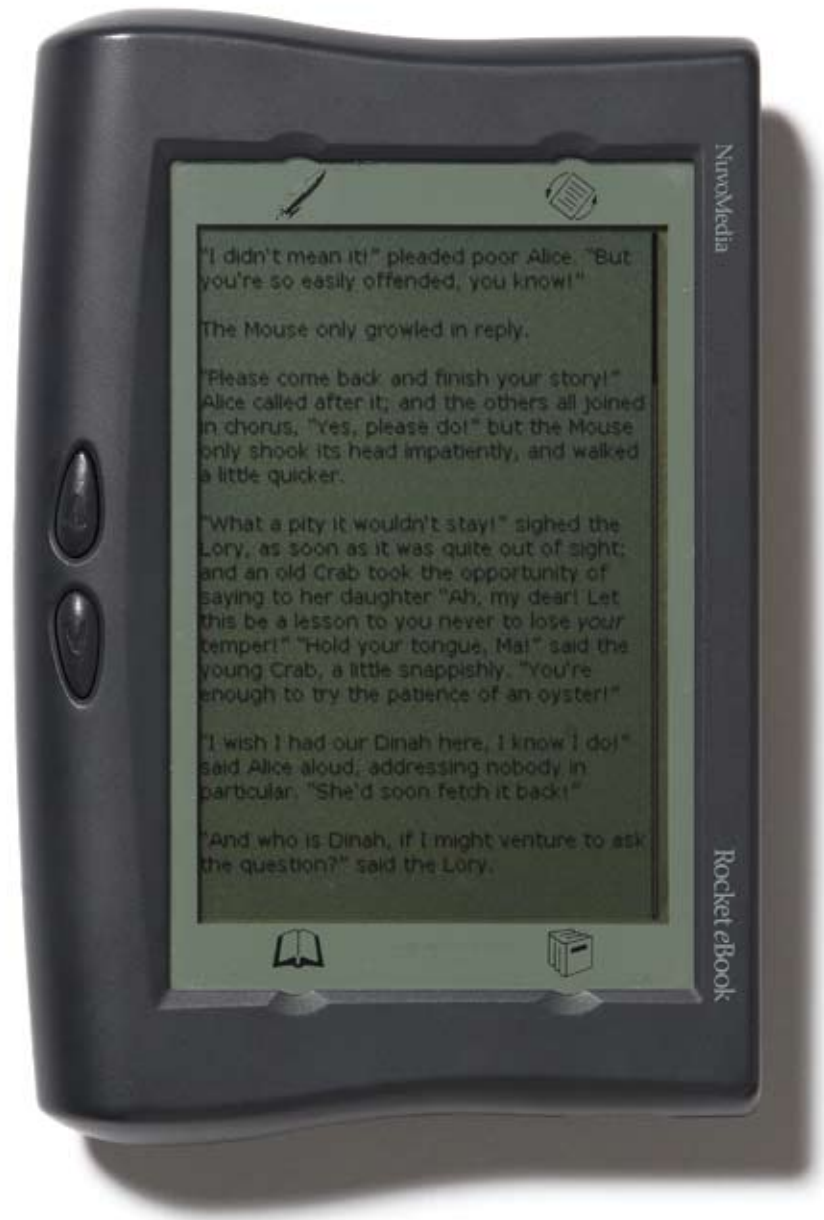


The size of a Hardy Boys book
photo by Nicolas Zurcher



My idea of the right size for the electronic book was that it should be the same size as a typical hardback, like a Hardy Boys book. Early on, as I was thinking about what an electronic book ought to look like, I went to a bookstore and bought a book of that size. I took my table saw to it and put in a fake screen, so that from the outside it looked like a book, but when you opened it you could see the screen. That was my first prototype of what the thing should look like.

I brought that to my designer friend, Jim Sacherman, as a thought experiment, saying, “Imagine that this is electronic,



← RocketBook
photo by Nicolas Zurcher

that you can read any book on it.” He said that it’s really tempting to make a new device look like the thing it’s replacing, the cover and all that stuff, but you need to think about where it’s going to eventually end up and try to express the device, the new thing, in its own way. So the RocketBook lost its cover and instead was optimized for being comfortable in the hand, balanced correctly, operable with one hand, and focused on the user interface and the readability. That first idea of cutting up a book was interesting because the size of the screen that I cut out was only half or three-quarters of an inch larger than the size of the DMTN screen we were able to get from Sharp.

It was a little heavier than I wanted, but not bad: it came in at about one pound. The battery life was great, lasting more than twenty hours with the backlight on. It was a little too heavy because we had four nickel–metal hydride batteries in order to get the battery life. Second-generation products had lithium-ion batteries.

More than a decade later, Martin still sees the quality and behavior of the display as the most important attribute for a successful design. Of course the electronics are smaller, faster, lighter, and less expensive, and wireless technology makes the connectivity much easier, but the question of display technology is still open. Electronic paper is becoming popular, as it offers high-contrast display on a surface that looks and feels much more like paper as well as very low power consumption, but it loses that surface quality with a touch screen in front of it. Then there is the need to refresh the image completely to change it.

You have to flash the screen every time you change the page to make electronic paper work. You cancel the image by putting up a negative before you go to the next page. During our early usability studies with the RocketBook, we experimented with different graphical effects that could happen during page change—for example, peeling one page off to reveal the next. We tried maybe a dozen different ideas. Much to the chagrin of our user-interface people, the one that readers liked the best

was where you just painted to the next screen as quickly as you could. We also instrumented the RocketBook to measure how fast people were reading, and then we'd give them a test to measure comprehension as well. We tried different technologies of page turning to see what worked and what didn't work. The minimum amount of interruption was the right answer, for sure!

In the original version of the RocketBook, the frame around the screen had our logo in the middle at the top. It said "Rocket eBook" up there in white letters on the dark background of the bezel. People found themselves noticing it every time they turned the page and it irritated them. It actually affected reading comprehension: if we got rid of the logo, they read faster. We wound up taking it off, turning it sideways on the side of the screen and making it a much lower contrast. Your brain is all in tuned to reading, so it reads every piece of text it finds.

NuvoMedia managed to persuade a growing number of publishers to allow front-list titles to be viewed in electronic form, so that by the time they sold the company to Gemstar International in 2000, they had 50 percent of the best sellers available in RocketBook form in any given week.

Martin's general advice when designing an electronic book is to avoid thinking that it's going to replace all books, because people who buy e-books are also likely to have hundreds of books in their house. He suggests that the designer or entrepreneur should think of ways to extend or improve the reading experience when the owner is away from their comfy chair in the living room. Perhaps they want to read during a commute or on an airplane or refer to information in a business meeting.

One of the big hits for the RocketBook was reading in bed. You could read in bed with the light off and your spouse could sleep. It was hugely popular to do that! It's the same thing on an airplane. When you're on that cross-country flight, or around the world flight, there is a period when they turn the lights off and everybody's trying to sleep. And when you turn your reading light on, you feel like a boor for doing so. Having an electronic

book that gives off just enough light to read doesn't have the same effect; it's just great.

The funny thing is that there isn't one single compelling reason to have an electronic book that applies to everyone. For some people it's access to books while they're traveling. For others it's the ability to carry a bunch of books with them. For a different group it's instant access to large print for any title they want. For another group it's reading in marginal light situations. One unexpected group we identified was nursing mothers, because they can hold the book in one hand while they are nursing and read with no hassle. If you saw a pie chart of why people buy electronic books there isn't one big wedge; it's lots of small wedges. To be successful in this arena I think you need to understand all those wedges and make sure you're not losing too many of them due to your design choices.

THE QUE PROREADER FROM PLASTIC LOGIC was announced at the Consumer Electronics Show in Las Vegas in January 2010, using E Ink on a plastic backplane in a form factor that is similar to a pad of paper. Rich Archuleta joined Plastic Logic as CEO in 2007 to guide the QUE to market, coming from a stellar career at Hewlett-Packard. In the next interview he tells us why he believes that e-readers have come of age.

RICH ARCHULETA

Interviewed September 3, 2009



← Rich Archuleta
photos by author

RICH ARCHULETA

Rich Archuleta, commonly known as Arch, thinks that electronic books and readers will gain widespread acceptance when three attributes come together—namely, consensus about the standards for electronic reading material, wireless communication technology, and new display technologies that are competitive with paper. Believing that this convergence is mature made him decide to leave his post as a senior vice president and general manager at Hewlett-Packard in order to become CEO of Plastic Logic in 2007. Arch joined HP in 1980, straight from the master's program in electrical engineering at Stanford University. He soon gained a reputation for excellent work in defining new products and business innovation and was quickly promoted to project management and then business leadership. In three years he transformed HP's Notebook PC business from twenty-seventh ranking into the top five. He became responsible for the standard Intel Architecture Server business and the Worldwide Volume Direct business, led planning for the merger integration of the HP and Compaq PC businesses, and was *Mobile Computing Magazine's* "Mobile Industry Person of the Year."

IDEO had the opportunity to help with the QUE proReader (it was responsible for the industrial and interaction design of the final version announced at CES), so I was aware of the design approach as it neared completion. I thought it would be an interesting contrast to the early RocketBook, as it has new solutions to many of the challenges identified by Martin Eberhard. Gene Celso and I took our video cameras to Rich Archuleta's home for the interview. I was charmed by his friendly manner and impressed by his straightforward and clear articulation of the issues.



← The QUE proReader
photo by Plastic Logic

THREE GOOD REASONS

Plastic Logic has been developing core technology in flexible displays since a group of researchers from the Cavendish Laboratory at Cambridge University in the UK founded the company in 2000. They created a flexible backplane made out of plastics, which has embedded transistors capable of energizing electronic ink on the surface to appear black or white. This backplane allows them to make a large display that is very thin and light but avoids the fragility of silicon-processing technologies protected by glass.

E Ink is a development of E Ink Corporation, founded in 1997 by a group of researchers from MIT Media Lab. It consists of millions of tiny microcapsules, about the diameter of a human hair, with black and white particles suspended in a fluid. The white particles collect at the top of the capsules when a negative electric field is applied while at the same time an opposite electric field pulls the black particles to the bottom where they are hidden. By reversing this process, the black particles appear at the top of the capsule, making the surface appear dark. E Ink is used on most of the e-readers on the market.

Rich Archuleta looked carefully into the e-reader business when he was approached by the members of the board of Plastic Logic in 2006 and concluded that three attributes needed to come together for success.

One of them was the evolution of standards, so that you could get electronic material to these things in a standard way. If you go back about ten years, there were twenty-plus different standards just for electronic books, let alone all of the different formats for the other material you might want to display on an electronic reading device. In the last couple of years we have started to see a consolidation of the standards, and it is clear that there are going to be a handful that will emerge. The standards space is coming together and that is one of the keys.

Another key is the wireless technology. Having a reading device that always needs to be tethered to another computer or intelligent device has some applicability but wouldn't foster huge growth. We see wireless standards, both Wi-Fi and especially the cellular networks with 3G, now able to handle reasonable amounts of data in a pretty efficient manner, and they are becoming much more global. That was the second piece for me.

The third piece was the display, because if you are building a reader it's all about the reading experience. E Ink technology, for the top layer of electrophoretic material, has done a good job of giving us a nice reading experience, but you were still putting it on a back plane that was essentially an active matrix display, which was using silicon and glass technology, so it would be hard to build something relatively large, like an 8½-by-11-inch piece of paper. I felt that the display technology from Plastic Logic could do something that for a user would feel like a very natural and comfortable reading experience.

THE READING EXPERIENCE

Liquid crystal displays (LCDs) are ubiquitous, found in laptops, smart phones, personal computers, and modern televisions. They are built in very large volume, using a mature technology that is reliable, robust, and low cost, offering a very rich experience with excellent color and full-motion video. Why then is LCD not ideal to use for reading? Arch gives two reasons.

I don't think that it's a very comfortable reading experience for long periods of time. The liquid crystals need backlight, so you're always shooting photons into people's eyes, and studies have shown that causes eyestrain. Secondly, the backlight is not bright enough for natural lighting conditions. If you take it outdoors, you can't read it.

Over the years, a number of companies have tried different technologies that can hold an image and create an experience that's almost like reading ink on paper, with ambient

light reflecting off the image. At the same time they have looked for something to hold the image stable, without flickering or any other artifacts that detract from the long-term reading experience. The E Ink technology that we use for QUE is very stable. We've had displays that we've energized two years ago and we pulled them out of our labs and the same image is there.

There are other companies that have technologies in their labs that will do similar things to E Ink, but they are not in commercial manufacturing yet. There are a lot of different approaches to do this, and we're working with several.

E Ink is also excellent from a power conservation standpoint. When you are reading things you are usually maintaining an image for long enough to read the page, probably from ten seconds to a few minutes, whereas the LCD screen is refreshing the crystals at video speeds and the backlight is always on.

Reading is easier when the white background is bright and the contrast to the black ink is high. The development team at Plastic Logic has made extensive measurements of these attributes in order to compare the various technologies and implementations that are available. The current levels for E Ink are already better than standard newsprint, but not yet up to the quality of this book or a glossy magazine. Another threshold for the acceptability of the reading experience will be passed when the technology improves enough for the white state to be as bright as the best quality paper, with the blacks as dark as good ink. Arch sees those developments as evolutionary, with the next major inflection point associated with color and full-motion video.

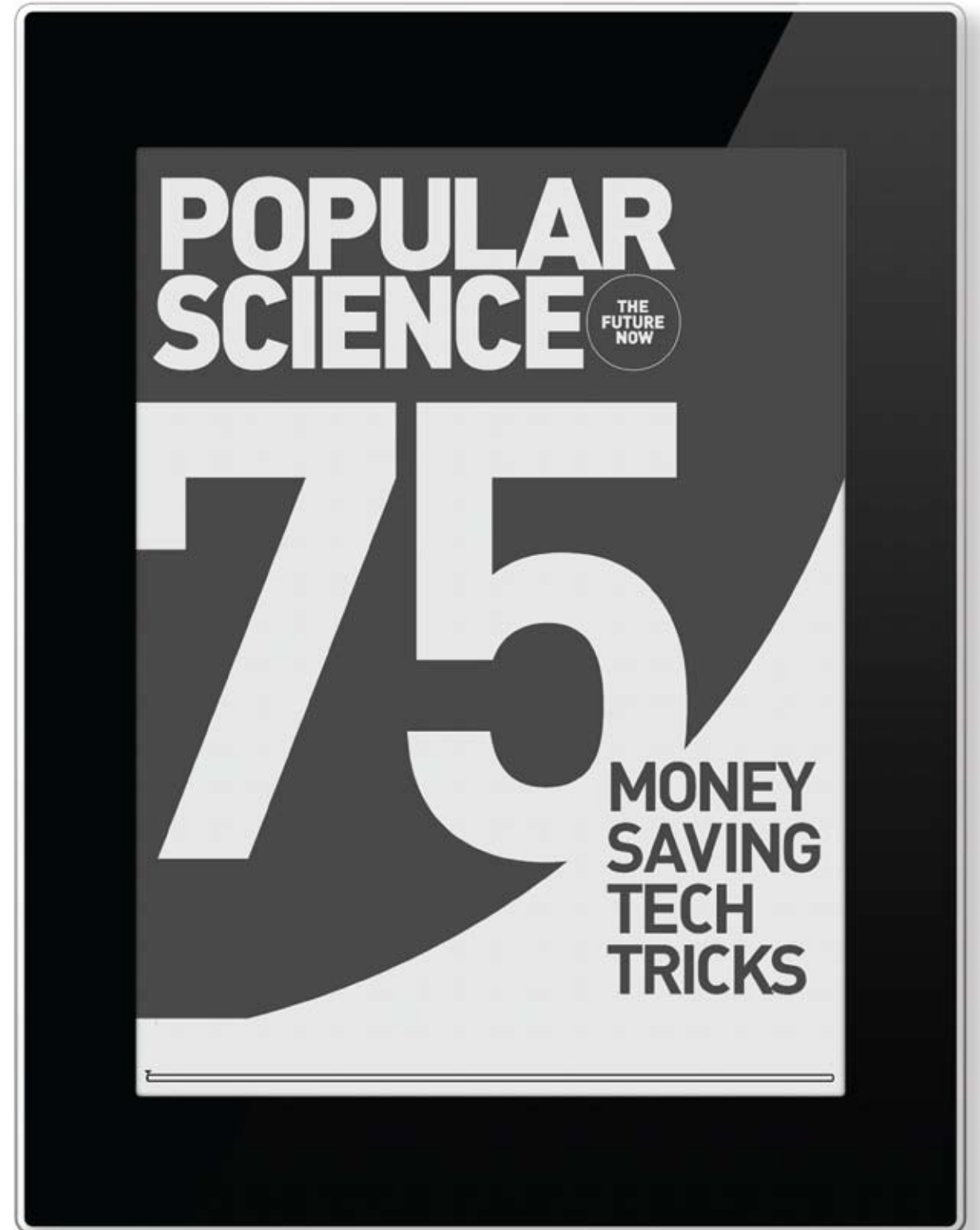
There will be continuous improvements in the white state and contrast, with better readability than today, but those are minor improvements. I don't think they will cause a big knee in the curve growth. The next big piece is once you get rich color with full-motion video, in a product that still allows you to have black and white reading capability that's similar to today. A lot of the technologies that are coming for color make a trade-off between color and black and white, so if you have a really nice color display, the black and white text is not as readable.

By the time we have something that gives you great black and white text at the same time as really good quality color, we will have already seen a high level of adoption for black and white materials and people will be craving the color. I think color is important, especially when you get to magazines. For all the published material, the one piece that I think will take the longest to move over into electronic readers is the magazine format. The magazine experience relies on rich color and high-quality photographs, and that is going to take a while to replicate. The technology in 2010 will allow you to reach a newspaper cartoon-level color, and maybe even with a little animation. It may be good for some types of animated books, but it won't be able to match the rich color you have in a magazine. That will take a few years.

Arch expects to see a drastic shift toward electronic publication, with traditional media moving away from paper at an accelerating pace. He thinks that books and newspapers will be affected most initially, with a dramatic decline in readership for the paper versions. Newspapers are already seeing advertising revenues moving quickly to the online versions of their content, and as the advertising rates are so much less online, this is causing severe stress to the overall businesses. He sees books reducing in quantity more gradually, as the e-readers get better and people rely more on the connectivity that allows searching and sharing with others in their social networks. He sees the magazine industry as the last to be affected, as the experience of reading a magazine relies so much on the quality of color photography, both for editorial and for advertising.

I think we will see less printed matter and more things being delivered electronically. And I think you will see it on portable devices like we're building at Plastic Logic. Our device has been designed from the ground up to support large-format reading, to include things that are normally delivered to you in 8½-by-11 or even slightly larger format for magazines and newspapers. We've been working on the industrial design of the product, how it feels in your hand, how it is to hold it under different conditions. If I'm sitting on an airplane or a train, or reading things sitting at a desk or sitting on the sofa, I can easily hold it and read it very naturally. There's been a lot of thought and care that has gone into the form factor of the device, which I think is incredibly compelling.

[The QUE proReader](#) →
photo courtesy of Plastic Logic



INTERACTION DESIGN

When Arch joined Plastic Logic in 2007, most of the people in the company were working at their headquarters in the UK and a lot of conceptual work had already been done. They had started out experimenting with things on their own, worked with outside experts for ethnographic studies, and brought in the celebrated industrial design firm Seymour Powell to develop design concepts. Arch also worked with consultants in Silicon Valley to try out ideas and test user interfaces, so there were a lot of people involved in exploring different paths and discovering what worked. When they got to the point where they needed to make decisions on bringing it all together, Arch looked for a design firm to help them synthesize the best ideas that had emerged from everything that had been done and to try to create an innovative new solution. He chose IDEO because it offered all of the resources that would be needed and has a reputation for successful collaboration.

The physical form of the QUE, dubbed a “Paperless Briefcase,” is the same as an American letter-sized pad of paper, but it’s only a third of an inch thick. The designer (Caroline Flagiello of IDEO, working with Plastic Logic as acting creative director) kept the form almost monolithic in its simplicity in order to celebrate black and white print, with textures and transparency used to make it look like a glass container for the E Ink. The weight of less than a pound was possible due to the plastic substrate, which is much lighter than glass. Research with potential users supported the idea of comparison with a magazine, as nobody complains that magazines are too heavy to hold or read.

When Arch joined the company, he helped to drive the decision to base the product design on a touch screen, based on how people read and the interactions that would enhance the experience.

It’s very natural for people to use gestures, and mark up or annotate things, or turn the edges of a piece of paper, or switch pages—it’s just a very natural experience if you can touch it. It always seemed a little unnatural to us if somebody had to use buttons to move things around or to navigate.

Now the downside of touch technologies is that when you have a reflective display and you put another layer between



The “Paperless Briefcase”
photo courtesy of Plastic Logic

your eye and the image, you do reduce the amount of light, and so it can potentially change the image. If you look at some of the early readers that have tried to use touch technology and put them side by side with readers that don’t have touch, you can see a difference. One of the main areas that we’ve been working on over the last couple years is a touch technology that will allow a lot of the light to go through with very little light loss, so the image clarity remains very, very high. That’s been a big thing for us, and we believe that will be a big differentiator in our product.

When I think about the evolution of readers, because we’re still in the very early stages of this technology, I think about

where we will be in ten years. I think all of these potential issues you see with touch today will all go away. I think we will find solutions where everything will be based on being able to touch the screen and interact with your material that way.

We've been thinking about not just book reading, but newspapers, magazines, user-generated material like emails, Microsoft Word documents, and PDFs for things like reference manuals or any type of document. How do you want to interact with that on an electronic device that is mobile and that you can have with you all the time and enjoy in different experiences? How do you build a user interface that some people refer to it as "sit-back reading," where you're really going to immerse yourself into the material and read for a long period of time, versus "lean-forward reading," where you want to review things and switch between documents and maybe add some annotation and be able to use that in a collaborative work manner with others.

Barnes and Noble is providing the back-end server and e-commerce infrastructure for Plastic Logic, with the online store in front carrying the QUE brand. Amazon has so far been the leader in electronic book content, but Arch believes that Barnes and Noble will compete head-to-head with Amazon and may well pull ahead.

Plastic Logic started as a group of researchers dedicated to developing plastic electronics technology. Now it's producing displays at its own factory in Dresden, Germany. It's also attempting to develop a new business model, to create the right system with all of the content coming together: the relationship with the publishers on content presentation, solutions to technical problems for the plastic electronics and display technology, collaborations with people on new front plane materials for the future of electronic books—all in a device that just yields a good user interface.

We have a stunning user interface! By "stunning" I don't mean that it's in your face. It's stunning from the designer's standpoint, but from a user's standpoint it's in the background, because what we're trying to create is something that removes the technology from the equation from the user's mind—

that things just happen the way that they expect them to with all these different types of content.

It seems that about every ten years you see a whole industry start to transform, and it's fun to be a part of. Publishers are struggling today. Profit margins have been eroded even in a segment like book publishing. You've seen the big guys gobble a lot of small independents and the profit margins are eroding for everyone. They are under pressure. For newspapers it's even worse! The whole publishing industry is going through this transformation because new technologies are enabling new ways to get information. We've seen it with the Internet, but now I think it's the turn of portable devices, where people can have a great experience that competes with traditional media. It's all coming together in a very short period of time, and it's pretty exciting!

COMMENTARY

The people interviewed in this chapter thrive by operating in two worlds and combining the attributes of emerging media with those of traditional media. Joel Hyatt has added user-generated content and Twitter feeds to Current Media's television platform. Bruce Nussbaum and Jessie Scanlon have created an online channel to complement *BusinessWeek* magazine, bringing some of the material generated online back to print as a quarterly supplement. Jane Friedman expanded the reach of book publishing by adding the author tour, promoted by television and radio. She also started an audio book division at Random House. She has embraced digital publishing, electronic books, and social networking. Electronic books and readers exist in both worlds by delivering traditional books, newspapers, and magazines through an electronic medium. They are advancing rapidly as new technologies improve the chance to design for a better reading experience. We can see the progress by comparing Martin Eberhard's 1998 RocketBook with the 2010 QUE proReader.

These stories imply that content can belong happily in both traditional and virtual worlds, although the material must be presented appropriately to highlight the attributes of each medium. An article written for the printed page of a newspaper will be presented with a different tone and style for an online blog and adjusted again for a Twitter feed. Good communication design comes from a synthesis of all of the attributes of the media as well as the content. Magazine designers know by experience how best to lay out an attractive page, combining rich high-resolution images with easy-to-read typography for articles and salient type for headlines, pullouts, quotes, and sidebars. When translating the same story to the Web, the images need to be smaller, the text shorter, and the pagination structure different, but you have the chance to add a new dimension by including links, animated diagrams, podcasts, and videos. Similar design differences apply to other media.

The story of the development of the Innovation and Design channel for BusinessWeek demonstrates this design difference. Bruce Nussbaum and Jessie Scanlon developed a dynamic and interactive approach to the online offering, with a conversational design style that promoted dialogue through comments and blogging and leveraged partnerships with other organizations outside the *BusinessWeek* fold. I like Bruce's description of blogging as a "borgy brain thing," which I take as akin to "dancing with a lot of random people at the bar"; this contrasts starkly with his work as a commentator when he was a page editor for the magazine.

Bruce evolved his approach to designing online quickly and effectively, bringing in expertise in the person of Jessie and adding a versatile team as they moved forward. I am struck by the fact that he is more proud of designing his team than anything else in his career. He was able to put together a group of people who were multigenerational, interdisciplinary, and creatively fluent across media, moving easily from online, to print, video, podcasts, and blogs. As he says, they are "full of energy because they are so polymath in so many different ways!"

Lightweight teams like this may be needed to respond successfully to the new economic challenges facing organizations that want to occupy both worlds. Income shrinks dramatically as advertising revenue migrates toward the online versions, so the journalists and designers need to be much more productive and versatile to make ends meet. This is very difficult for entrenched organizations that have evolved to produce magazines like *BusinessWeek*, but the economics will eventually find a new equilibrium. Perhaps online outlets will be staffed by more teams like Bruce's. And as with the quarterly version of *Innovation and Design*, print material will be brought back from the online world.

Jessie points to a classic design lesson about understanding customers. She thinks that *BusinessWeek* should have done more thorough research in advance of designing the online offering, as the vision was initially to connect designers and businesspeople, helping them to interact more productively. As time went by and they heard back from readers, they discovered that more and more businesspeople are interested in learning about design, as they see innovation and design operating together. The audience evolved to become mostly businesspeople who want to use design processes to help them solve difficult problems in new ways. I wonder whether a design research effort at the beginning would have revealed this or whether it was necessary to dive in with an experiment and "live life in beta." Design is usually most successful when the process includes an iterative cycle of understanding people and trying a prototype solution, so perhaps the combination could have been productive.

The need for well-designed templates also comes out of Jessie's interview. The optimal balance between control and freedom is essential. Control is needed to give consistent visual identity and navigational behavior, but creative freedom is also necessary to make the design come alive and be responsive to the mood of individual content. The graphic designers, typographers, and art directors of print magazines have evolved a sophisticated balance between these priorities, but the early online equivalents tend to be mired down by their algorithmic controls, limiting creativity and flair. Jessie points to the design of the iPhone as a success story, with the tool kits provided to application developers giving the right balance between consistency and freedom, yielding good results even when the application developer has very little empathy for the design guidelines.

Current TV inhabits more than both worlds, as there is a political world of idealistic intention driving the thinking of both Joel Hyatt and Al Gore. This drives them to want to "give voice to a whole generation whose voice was not being heard." They need to strike a balance between the well-intentioned paternalism of their TV programming and the community participation of user-generated content. Joel wants to design an approach that will be popular for an audience ranging in age from eighteen to thirty-two, giving them what they really want, which is not always what an older generation of management thinks they should want. He believes in listening to and learning from the audience, while using the wisdom of experience to avoid the lowest common denominator. I hope that this idealistic version of both worlds can flourish in competition with more commercially motivated offerings.

Jane Friedman cannot live without her library and believes that books will always be highly valued. Her business acumen is fueled by a desire to get more books in the hands of more people, so she welcomes any new opportunity to reach an audience by stepping into a new world. She harnessed radio and television to sell books at a time when books were usually only promoted on the book pages of newspapers. She is open to any new design or technology that can help more people have access to books and welcomes Internet and electronic editions.

I said earlier that content should be adjusted to fit its medium: at least the presentation of the material needs to be designed to fit the attributes of each medium. Electronic books challenge this idea, as the design of the technology is trying to let you read the book in something close to its printed format. As Martin Eberhard points out, people are motivated to use e-books for lots of different reasons. I like his idea of reading in bed with the light off without disturbing your partner. Electronic readers also give tired eyes

instant access to large print. And there are countless niche users too, like the nursing mother who wants to hold a book in one hand while feeding her baby. A successful design will provide a solution that satisfies as many needs and desires as possible, while accepting that the same people who are motivated to by an e-book are also likely to have lots of paper books and magazines, possibly even take a printed newspaper.

I have a personal connection to the design of electronic readers. In recent years I have been close to Martin Eberhard as a friend and neighbor, and I was a design advisor for his Tesla Roadster. When he was working on the RocketBook, though, I thought of him more as a competitor since IDEO was working on the design of the SoftBook, which was launched at almost the same time. The two versions came together in the next iteration as Gemstar purchased both NuvoMedia and the SoftBook Press, launching a new design that combined the best of both products.

The original SoftBook was larger than the RocketBook, with a screen that could display the page of a typical book at slightly larger than actual size to compensate somewhat for the low resolution of liquid crystal displays at that time. The shape was elegant, winning several awards for the industrial design (*BusinessWeek's* IDEA Gold and *ID* magazine's Design Distinction awards), with a leather flap protecting the screen that was held in place by a magnetic latch. The IDEO team created the industrial design, interaction design, and engineering, so they were able to integrate the design solutions across disciplines.

This is how Duane Bray, a partner at IDEO, where he heads the firm's global Software Experiences Practice, described the interaction design in an interview in 2003:

There were two areas where we tried to connect the screen experience to unique physical controls. One was with a hardware control for changing pages that we wanted to make as simple as skimming through pages in a book. You simply turn a rocker, and the page just flips, one to the next. You hold it down, and it begins to accelerate as if you were flipping through a book. The other control was a physical menu button, which avoided having the control interface on the screen while you were reading. The button was located above the screen, and when you pressed it a menu dropped down over the screen, giving the sense that pressing the button actually pushed a menu down over the book. The menu allowed you to change the size of the type, search for something, close the book, and open a different one, and so on.

Several aspects of the technology in SoftBook were not ready for the consumer market. At \$599, the price was high. The display seemed a bit gray due to the low contrast ratio. Finally, the telephone download speeds were tedious: this was a barrier, as the unit did not attach to a computer, and you had to rely on a personal bookshelf at the server maintained by SoftBook Press. The RocketBook and SoftBook together sold less than 50,000 units by the time the companies were acquired by Gemstar in 2000.

I agree with Rich Archuleta's conclusions that three attributes are needed to come together for the e-book industry segment to succeed: evolution of standards, fast wireless technology, and a satisfying display. As Arch says, "It's all about the reading experience."

As I write this in early 2010, the jury is still out about the best display technology. The Amazon Kindle has been on the market since November 2007, launched with an E Ink display that I find almost as pleasant to read as paper, even if the unit is small and without the contrast ratio of ink on paper. Amazon also had an enormous array of over 88,000 titles available right from the start and used wireless for easy downloads. I didn't like the physical controls, with the irritating Select Wheel and a "Chiclet" keyboard that reminded me of the early home computers. The Kindle 2 and DX have done a lot to improve on the design. The DX was launched in June 2009, by which time the Amazon library had grown to more than 400,000 titles. I wonder if Martin Eberhard is right that people will dislike the flash as the screen refreshes enough to prefer a display that is more like a computer screen. That question will probably be answered by the time you read this, as the Apple iPad will have been on the market long enough to test the value of a full-color display with video capabilities and a touch interface. Perhaps Arch will be proved right about the drawbacks of LCD displays.

My guess is that the main battle for domination will be between Amazon and Apple, not so much because of their designs as because of the attributes of their business systems. Amazon can offer the best library of titles, whereas Apple can offer the connection to the iTunes store and the iPhone app store. Perhaps there will also be room in this expanding segment for innovative designs like the QUE. I feel confident that there will continue to be print versions of books, magazines, and newspapers sold, but they may need to be well-designed to survive.

IN THE NEXT CHAPTER WE MEET PEOPLE who believe that it's the content that matters most and that the role of design should be to adjust the presentation of the content to suit the medium. Arthur Sulzberger Jr. and Alice Rawsthorn talk about news journalism, Ira Glass discusses the differences between radio and television, and Colin Callender speaks about producing content for television and film.

