IBM: Stand out from the Consumer Electronics Crowd with First-Class Product Design

To hear this podcast, go to http://ibm.com/bcs/electronics/podcast.

Paul Brody is an IBM consultant and is an expert on the design of consumer electronics products. Paul is also the author of the chapter on product design in the newly published book titled *Irresistible! Markets, Models, and Meta-Value in Consumer Electronics*.

In this podcast, Paul explains how product design is crucial to success in today’s highly competitive consumer electronics market.

**Henderson:** Hi, I’m Al Henderson.

I think we all see that the consumer electronics products we use today are better designed than they were years ago.

The emphasis today is not just on the functionality of a product—what it can do—but also on its elegance and ruggedness. Just look at the best of the cell phones, or the hand-held MP3 players. The successful electronics companies today are looking to stand out from the crowd through their excellent product designs.

Paul Brody is a consultant for IBM who has been working with clients on product design issues. He has been at the leading edge of how product design is crucial to a product’s success in the marketplace.

Paul, thank you for joining us today.

**Brody:** Thank you. I’m glad to be here.

**Henderson:** You recently have written about how the need for good product design is really set against the backdrop of increased commoditization in the consumer electronics market.

Let’s start there. Tell us what commoditization is, and why it is affecting things today.

**Brody:** Consumer electronics today increasingly have almost identical innards. CD players or DVD players tend to have the same chips, almost no matter whose brand is on the product. And digital technology lends itself, especially in the media area, to an almost identical reproduction of an experience, no matter whose product you’re buying.
Brody, continued:
As a result, what happens is consumers who are unable to find a reason to differentiate between products tend to pick the reason that’s easiest—price. That has a huge impact on the industry as a whole.

Henderson: So you’re saying that consumers will choose mostly on price if nothing else stands out about the product. That trend toward price equalization has to have a big impact on the industry, right?

Brody: Yes. The price equalization. In particular, the fact that consumer electronics are being judged by consumers on price is having a huge impact on the industry.

I think that our book, and the chapter that I wrote, is about the fact that more and more there is an alternative to choosing based on price—choosing on design.

Great-looking products, ones that are easy to use and functional, can actually be different, even if they work very similarly to how other products work.

Henderson: OK. Can you tell us what you mean by product design, and what makes up a good product design?

Brody: Good product design is not simply a matter of a shiny looking case. It’s possible to have product that is beautiful but not functional, or is very difficult to use.

Great design is where beauty, functionality, and ease-of-use all come together. Some of the more famous examples of design that maybe is beautiful but not necessarily practical are things like music players where you can’t find the play button anywhere. There’s just a single knob for accessing all the different player functions. Having consumers drill down through two or three menus to find what they want to use makes the player difficult to use, even if it is quite attractive.

Another example that you come across quite frequently is the product that’s beautiful, but it is something that gets used every day and scratches easily. Perhaps the first time you drop it, it shatters into tiny little pieces. Those products are beautiful; they might be easy to use; but they are a little bit too delicate for the beating that consumers put on their products every day.

Henderson: OK I see. Can you tell us about some things that work against good product design?

Brody: The Sony PlayStation, while it’s a terrific design for playing games, actually is not a very good design for being a music player or a media player. It doesn’t have a play button for music. It doesn’t allow you, for example, to store your music on the high density disks that you can store games on, and it doesn’t have the normal play, pause, fast forward functions that you expect to find on what everybody thinks is a great example of a portable music player, which is the Apple iPod. Now that’s a product that’s both beautiful and functional. It is incredibly simple
**Brody, continued:** to use. The click wheel, the scroll wheel in the center, has become a famous example of a tool that is incredibly simple for consumers to grasp.

Unfortunately, the latest editions of the iPod, the Nano, do seem to suffer from some scratching, so they may not be as robust in terms of consumer-ready design as people might have expected.

**Henderson:** Can you tell us a little more about what makes a well designed product from the consumer’s point of view. Does the user interface play a big role?

**Brody:** Sure. Innovative product design is increasingly the easiest way to tell two products apart, from a consumer standpoint. MP3 players, dishwashers, microwaves—they often function exactly the same way within a category. And to what extent are they different? I will tell you that many consumers honestly have a hard time figuring out exactly what a perfectly fantastic washing of dishes is versus a mediocre one. But everybody can tell you which dishwasher looks fantastic in the kitchen.

And so as people think about products they want to be seen with, products they want to have seen in their home, products that they’re going to carry around every day, design becomes more and more important. And if a cheap MP3 player is $150 and a beautiful one is $200, incomes are at a level today, especially in the U.S. and Europe, and in many other wealthy countries, where the difference is worth it.

And indeed, when I talked to a lot of executives what I found was that they didn’t want the products that were less beautiful or less functional. Those products sell to the lower income levels. The more beautiful, more functional products sell to the higher income levels. So, that is a very big differentiator. The wealthier people really want beautiful products to carry around.

From a business standpoint, of course, you can achieve much more superior margins on a beautiful product. Without beating too much on the iPod, I think it’s a terrific example. Apple never has an iPod sale. In fact, I can’t think of the last time that Apple even bothered to put a markdown on an existing iPod. Many of their products were introduced at a $299 or $399 price point and stayed that way for 6, 9, or even 12 months. That’s something that is unheard of in the consumer electronics industry. And Apple gets tremendous margin as a result because all through that 12-month period their costs are declining and their price is staying exactly the same.

So, from a business standpoint, the financial impact of having beautiful products can be staggering. Perhaps you can increase your margin 10-fold over a six- or nine-month period.

**Henderson:** OK I see what you mean. But it’s still a fact that many electronics products have the reputation of being hard to use. Can you tell us more about the relationship of the user interface and good product design?

**Brody:** Absolutely. There is a history of thinking of the external appearance of a product and its user interface as something that are quite separate. And it’s this thinking that brought us the soft button, or the user-defined button that changes its nature based on what you’re doing and
Brody, continued: points to a little LCD screen that tells you what it’s going to mean in this particular context. This is often a recipe for failure.

Physical design is a great way to manifest the user interface. If you have a music player, you should be able to press play on it. There should be a play button. There should be a pause button. If you have a telephone, there should be little green and red send and end buttons. Those are things that consumers intuitively understand.

And while you’re in the process of doing the physical design, you also have to think about durability. Consumer products get dropped, they get thrown. Unfortunately, people take their cell phones into the bathroom all the time and spill water on them or worse. And so when you’re designing a great product you also have to think about its ruggedness and its ability to withstand water and temperature and heat and pressure. People put their MP3 players in their back pockets and sit down.

Companies can use mechanical design tools for the purpose of punching holes in a plastic mold and figuring out where all the buttons go. But they also can use the tools for something that they haven’t done in the past and that they should do. They can use those mechanical design tools to conduct sophisticated stress testing on these products. That will allow them to understand how resilient the products will be in an actual consumer usage environment.

Henderson: Maybe you could give us a good example of a product with a really good user interface?

Brody: Oh absolutely. The Research In Motion BlackBerry products are a great example, not only of a terrific user interface, but of how an interface evolves over time. In the early days the BlackBerry was a paging or an email device only, and today it is both a phone and a paging and email device.

And what’s interesting to look at is that over time Research In Motion has added the physical buttons to the BlackBerry that make it representative of a phone. So the newest BlackBerry, the 8900, for the first time has send and end keys on the device. On a recent BlackBerry, the 7100, they changed the form factor to make it look significantly more like a phone.

And these BlackBerry devices are famous, not only for their ease of use with the click wheel and the ability of users to place and receive calls using a single hand, but they’re also famous for their ruggedness.

Henderson: Let’s take a moment to look at things from the product maker’s point of view. Tell us about why product design is so important for the companies that make the products.

Brody: Sure. In an environment where you have continuous product change and in one where more and more products are developed through licensing, reference designs, or using standard software from Microsoft or other companies, product design is one of the most important ways that companies can differentiate themselves from the competition.
Brody, continued:
A lot of digital products look the same and feel the same in the consumer’s hands and they have
the same inputs and outputs. And this is true even for household products.

So, having terrific design makes the use of the product simple and intuitive, and makes people
want to be seen with the product. Making the product robust and reliable is a way to multiply
your margin in this business.

Consumer electronics companies exist on the thinnest of margins. The cost of the raw materials
and the price of the product tend to go down between 10 and 30% every single year.

If your product is beautiful, if it’s distinctive, you can maintain your price over the course of a
few months, instead of having the typical experience that new products have, which is that they
come out, the price starts high and it tends to fall quickly and margins fall. You can actually see
your margins grow over time. Design explains why there is the difference between margins of 1
or 2% over the life of a product and margins of 15 or 20% or more.

Henderson: Paul, thank you for joining us today.

Paul: Thank you very much Allan.

Henderson: That was Paul Brody. Paul is one of the co-authors of a fascinating
book called Irresistible! Markets, Models, and Meta-Value in Consumer
Electronics.

You can learn more about this topic, and about other topics that are important to
the Consumer Electronics industry, in that book. The book is called Irresistible!
Markets, Models, and Meta-Value in Consumer Electronics.