

## You Can't Innovate Like Apple

**When what you teach and develop every day has the title "Innovation" attached to it, you reach a point where you tire of hearing about Apple. Without question, nearly everyone believes the equation Apple = Innovation is a fundamental truth. Discover what makes them different. By Alain Breillatt**

*Note: Experience tells me I must start with the disclaimer that I admire Apple, but I am not a Macaholic or a Windows Geek. I don't care who has the better OS—except to the extent that it provides examples for successful or poor innovation.*

**Apple! Apple! Apple!** Magazines can't possibly be wrong, so Apple is clearly the "Most Admired," the "Most Innovative," and the "Master at Design."<sup>(1, 2, 3, 4, 5)</sup>



Let me tell you, when what you teach and develop every day has the title "Innovation" attached to it, you reach a point where you tire of hearing about Apple. Without question, nearly everyone believes the equation Apple = Innovation is a fundamental truth—akin to the second law of thermodynamics, Boyle's Law, or Moore's Law.

But ask these same people if they understand exactly how Apple comes up with their ideas and what approach the company uses to develop blockbuster products—whether it is a fluky phenomenon or based on a repeatable set of governing principles—and you mostly get a dumbfounded stare. This response is what frustrates me most, because people worship what they don't understand.

I've been meaning to write this article for some time, but finally sat down and put pixel to screen after coming across a description of "Michael Lopp's (a Senior Engineering Manager at Apple) discussion of how Apple does design. The discussion happened during a panel—including John Gruber (yes, for you Apple heads, that "Daring Fireball" guy)—titled "Blood, Sweat, and Fear: Great Design Hurts, which was presented at SXSW Interactive on March 8, 2008. I scoured the Internet to find an audio or video recording, so I could garner these pearls of wisdom straight from the developers' mouths. But no search engine I know could locate said files. If someone reads this and happens to have such a recording, please, please share!

### Insights On Innovation

Without the recorded details, here is a collection of insights that various attendees created from their notes of the discussion—along with my own thoughts about what this portends for people who aspire to be like Apple. My intention is to synthesize these comments into a single representation of what Lopp and Gruber actually said.

Helen Walters at BusinessWeek.com summarized Lopp's panel with five key points:

**Apple thinks good design is a present.** Lopp kicked off the session by discussing, of all things, the story of the obsessive design of the new Mentos box. You know Mentos, right? Remember the really odd packaging (paper rolls like Spree candy) promoted by some of the most bizarre ads on TV? It's the candy that nobody I know eats; they just use it to create cola geysers.

Have you looked recently at the new packaging Mentos comes in? Lopp says the new box is a clean example of obsessive design, because the cardboard top locks open and then closes with a click. There's an actual latch on the box, and it actually works. It's not just a square box, but one that serves a function and works. I bought a box just so I could examine it more closely. It's an ingenious design of subtle simplicity that works so well even shaking it upside down does not pop the box open.

According to Gruber, the build-up of anticipation leading to the opening of the present that Apple offers is an important—if not the most important—aspect of the enjoyment people derive from Apple's products. This is because the world divides into two camps:

1. There are those who open their presents before Christmas morning.
2. There are those who wait. They set their presents under the tree and, like a child, agonize over the enormous anticipation of what will be in the box when they open it on Christmas morning.

Apple designs for #2. No other mass-consumer products company puts as much attention to detail into the fit and finish of the box—let alone the out-of-box experience. If you're an Apple enthusiast, you can capture the Christmas morning experience more than once a year with every stop you make at the local Apple store.

Apple "wraps great ideas inside great ideas," and the whole experience is linked as the present concept traces concentric circles from the core outward. Apple's OS X operating system is the present waiting inside its sleek, beautiful hardware; its hardware is the present, artfully unveiled from inside the gorgeous box; the box is the present, waiting for your sticky little hands inside its museum-like Apple stores. And the bow tying it all together? Jobs' dramatic keynote speeches, where the Christmas morning fervor is fanned on a grand stage by one of the business world's most capable hype men.

**Pixel-perfect mockups are critical.** This is hard work and requires an enormous amount of time, but is necessary to give the complete feeling for the entire product. For those who aren't familiar with

the term, pixel perfect means the designers of a piece of Apple software create an exact image—down to the very pixel (the basic unit of composition on a computer or television display) —for every single interface screen and feature.

There is no “Lorem Ipsum” used as filler for content, either. At least one of the senior managers refuses to look at any mockups that contain such “Greek” filler. Doing this detailed mockup removes all ambiguity—everyone knows and can see and critique how the final product looks. It also means you will not encounter interpretative changes by the designer or engineer after the review, as they are filling in the content—something I have seen happen time and time again. Ultimately, it means no one can feign surprise when they see the real thing.

**10 to 3 to 1.** Take the pixel-perfect approach and pile on top of it the requirement that Apple designers expect to design 10 different mockups of any new feature under consideration. And these are not just crappy mockups; they all represent different, but really good, implementations that are faithful to the product specifications.

Then, by using specified criteria, they narrow these 10 ideas down to three options, which the team spends months further developing...until they finally narrow down to the one final concept that truly represents their best work for production.

This approach is intended to offer enormous latitude for creativity that breaks past restrictions. But it also means they inherently plan to throw away 90% of the work they do. I don't know many organizations for which this would be an acceptable ratio. Your CFO would probably declare, “All I see is money going down the drain.” This is a major reason why I say you can't innovate like Apple.

**Paired design meetings.** Every week, the teams of engineers and designers get together for two complementary meetings.

**Brainstorm meeting**—leave your hang-ups at the door and go crazy in developing various approaches to solving particular problems or enhancing existing designs. This meeting involves free thinking with absolutely no rules.

**Production meeting**—the absolute opposite of the brainstorm meeting, where the aim is to put structure around the crazy ideas and define the how to, why, and when.

These two meetings continue throughout the development of any application. If you have heard stories of Jobs discarding finished concepts at the very last minute, you understand why the team operates in this manner. It's part of their corporate DNA of grueling perfection. But the balance does shift away from free thinking and more toward a production mindset as the application progresses—even while they keep the door open for creative thought at the latest stages.

**Pony meetings.** These meetings are scheduled every two weeks with the internal clients to educate the decision-makers on the design directions being explored and influence their perception of what the final product should be.

They're called “pony” meetings because they correspond to Lopp's description of the experience of senior managers dispensing their wisdom and wants to the development team when discussing the early specifications for the product.

*“I want WYSIWIG...*

*I want it to support major browsers...*

*I want it to reflect the spirit of our company.”*

[What???] In other words, I want a pony. Who doesn't want a pony? A pony is gorgeous! Anyone who has been through this experience can tell you that these people are describing what they think they want. Lopp cops to reality in explaining that, since they sign the checks, you cannot simply ignore these senior managers. But you do have to manage their expectations and help align their vision with the team's.

The meetings achieve this purpose and give a sense of control to senior management, so that they have visibility into the process and can influence the direction. Again, the purpose of this is to save the team from pursuing a line of direction that ultimately gets tossed because one of the decision makers wasn't on board.

Now, if you want to get the quick summary of what we just discussed, I highly recommend reading Mike Rohde's SXSW Interactive 2008 Sketchnotes. He took highly illustrated notes of the Lopp/Gruber panel. Content for this write-up also came from: Scott Fiddelke, Dylan at The Email Wars, Jared Christensen, David at BFG, and Tom Kershaw.

**What else does Apple do differently?**

If you read the various interviews that Jobs and Jonathan Ive (Senior Vice President, Industrial Design at Apple) have given over the last few years, you'll find a few specific trends:

**1. Apple does not do market research.** This is straight from Jobs' mouth: We do no market research. They scoff at the notion of target markets, and they don't conduct focus groups. Why? Because everything Apple designs is based on Jobs' and his team's perceptions of what they think is cool. **He elaborates:**

*"It's not about pop culture, and it's not about fooling people, and it's not about convincing people that they want something they don't. We figure out what we want. And I think we're pretty good at having the right discipline to think through whether a lot of other people are going to want it, too. That's what we get paid to do. So you can't go out and ask people, you know, what's the next big [thing.] There's a great quote by Henry Ford, right? He said, 'If I'd have asked my customers what they wanted, they would have told me 'A faster horse.'"*

Said another way, Jobs hires really smart people, and he lets them loose—but on a leash, since he overlooks it all with an extremely demanding eye. If you're seeing visions of the "Great Eye" from J.R.R. Tolkien's books, then you probably wouldn't be too far off. Here's the way their **simple process works:**

Start with a gut sense of an opportunity, and the conversations start rolling.

*What do we hate?*

A: Our cell phones.

*What do we have the technology to make?*

A: A cell phone with a Mac inside.

*What would we like to own?*

A: An iPhone, what else?

But Jobs also explained that in this specific conversation, there were big debates across the organization about whether or not they could and should do it. Ultimately, he looked around and said, "Let's do it."

I think it's clear they also benefit from the inauspicious "leak" to the market. By that I mean this overly tight-lipped organization occasionally leaks early ideas to the market to see what kind of response they might generate. Again, what other company benefits from having thousands of adoring designers come up with beautifully rendered concepts of what they think the next great product should look like?

**2. Apple has a very small team who designs their major products.** Look at Ive and his team of a dozen to 20 designers who are the brains behind the genius products that Apple has delivered to the market since the iMac back in 1998. New product development is not farmed out across the organization, but instead is creatively driven by this select group of world-class designers.

Jobs himself has delegated away many of his day-to-day operational responsibilities to enable himself to focus half of his week on the high- and very low-level development efforts for specific products.

**3. Apple owns their entire system.** They are completely independent of reliance on anyone else to provide inputs to the design and development of their products. They own the OS, they own the software, and they own the hardware. No other consumer electronics organization can easily do what Apple does because they own all of the technology and control the intimate interactions that ultimately become the total user experience. There is no other way to ensure such a seamless experience—a single executive calls the final shots for every single component.

**4. Apple focuses on a select group of products.** Apple acts like a small boutique and develops beautiful, artistic products in a manner that makes it very difficult to scale up to broad and extensive product lines. Part of this is due to the level of attention to detail provided by their small teams of designers and engineers. To think that a multi-billion dollar company only has 30 major products is astounding, because their neighbors at that level of revenues have thousands of products in hundreds of different SKUs.

As Jobs explains, this is the focus that enables them to bring such an extensive level of attention to excellence. But it is also an inherently risky enterprise, because they are limited in what new product areas they can invest in if one fails.

**5. Apple has a maniacal focus on perfection.** They say Jobs had the marble for the floor at the New York Apple store shipped to California first so he could examine the veins. He also complained about the chamfer radius on the plastic case of an early prototype of the Macintosh. You had better believe, given the 10 to 3 to 1 approach for design, that every shadow, every pixel is scrutinized. It's in their DNA.

They are willing to spend the money to make sure everything is perfect, because that is their mission.

### So is it possible for you to innovate like Apple?

So given all this, what is a company to do if they want to innovate like Apple? First, forget about it unless you are willing to invest significantly and heavily to establish a culture of innovation like Apple's. Because it's not just about copying Apple's approach and procedures. The vast majority of executives who say, "I want to be just like Apple," have no idea what it really takes to achieve that level of success. What they're saying is they want to be adored by their customers, they want to launch sexy products that cause the press to fall all over themselves, and they want to experience incredible financial growth. But they generally want to do it on the cheap.

To succeed at innovation as Apple has, you need the following:

**You need a leader who prioritizes new product innovation.** The CEO needs to be someone who looks out to the horizon and consistently sets a vision of innovation for the organization that he or she is willing to support completely with people, funds, and time. Further, that leader needs to be fluent in the language of your customer and the markets in which you compete. If the CEO cannot be this person, then he or she needs to be willing to trust that role to a senior executive and give that person the authority and latitude to effectively oversee the new product development process.

**You need to focus.** A cohesive vision describes the storyline for your products and services. That storyline needs to state decisively what is in bounds and what is out-of-bounds over an 18-month to 3-year period. Everyone in the development process who matters must be in lockstep with this vision, which means you need to have open lines of communication that are regularly and consistently managed.

This storyline or strategic vision needs to be revised according to market changes and the evolution of your new product pipeline. It helps that Apple tends to approach their products with a systemic frame of mind, looking to develop the "total solution" rather than just loosely joined components.

Obviously, the other focus is to make a profit, since that is what supports the continued efforts to design the next great product. And, when every one of the major products is a moon shot, they have to work to ensure it meets exacting standards—to do everything they can to ensure success.

**You need to know your customer and your market.** Jobs and team can get away with not doing market research, identifying target markets, or going out and talking with customers because of the markets they play in and the cult-like customers who adore them. Most technology companies also believe they can get away with this—and most technology companies get it wrong.

Quick, identify 10 different pieces of technology that truly meet your needs and that don't bug you due to a major flaw you either have to live with or compensate for in some fashion. Could you come up with more than five? I didn't think so.

We're drowning in a sea of technological crap, because every product that is released to the market is a result of multiple compromises based on decisions made by the product manager, the engineering manager, the marketing manager, the sales manager, and everyone else who has skin in the game as they prepare the offering to meet what they think are the target customer's needs.

The reason Jobs and Ive get it right is because they design sexy products with elegant and simple interfaces—for themselves. And they count on their hip gaggle of early adopters to see it the same way. Once the snowball starts rolling, it's all momentum from there.

Apple doesn't sell functional products; they sell fashionable pieces of functional art. That present you're unwrapping is all about emotional connection. And Jobs knows his marketplace better than anyone else.

Because you're not Apple and you are likely not selling a similar set of products, you must do research to understand the customer. And, while I'm sure Jobs says he doesn't do research, it's pretty clear that his team goes out to thoroughly study behaviors and interests of those they think will be their early adopters. Call it talking to friends and family; but, honestly, you know that these guys live by immersing themselves in the hip culture of music, video, mobile, and computing.

The point is not to go ask your customers what they want. If you ask that question in the formative stages, then you're doing it wrong. The point is to go immerse yourself in their environment and ask lots of "why" questions until you have thoroughly explored the ins and outs of their decision making, needs, wants, and problems. At that point, you should be able to break their needs and the opportunities down into a few simple statements of truth.

As Alan Cooper says, how can you help an end user achieve the goal if you don't know what it is? You have to build a persona or model that accurately describes the objectives of your consumers and the problems they face with the existing solutions. The real benefit, as I saw in my years working at InstallShield and Macrovision, is that unless you put a face and expectations on that consumer, then disagreements about features or product positioning or design come down to who can pull the greatest political will—rather than who has the cleanest interpretation of the consumer's need.

**You need the right people, and you need to reward them.**

The designers at Apple are paid 50% more than their counterparts at other organizations. These designers aren't working at Apple simply because they're paid more. They stay at Apple because of the amazing things they get to do there. Rewards are about salary and benefits, but they are also

about recognition and being able to do satisfying work that challenges the mind and allows the creative muscles to stretch. Part of this also comes down to ensuring your teams are passionate about innovation and dedicated to the focus of the organization. As Jobs says, he looks for people who are crazy about Apple. So you need to look closely at the people you are hiring and whether you have the right team in the first place.

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*Alain Breillatt is a product manager with more than 14 years of experience in bringing new products and services to market. His previous professional lives have carried him through medical device R&D, consumer credit, IT management, software product management, and new product consulting at companies including Baxter, Sears, InstallShield, Macrovision, and Kuczmariski & Associates. As a consultant he has generated new product portfolios for Fortune 500 and smaller organizations and developed course materials on innovation for the MBA and Executive Education programs at Northwestern University's Kellogg School of Management.*

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[Add Comment](#)

### Great Article

Of all the articles I have read from Pragmatic, this has been my favorite. I must admit that I'm one of those people waiting in line at the Apple Store for major releases (iPhone, Operating System, etc.). I also am a BA at a company that develops Windows-centric software in the financial market. So I deal with the day-to-day issues trying to build solutions when the customer just won't ask for a Pony (when that is what they really want). Thank you for writing this article.

[Reply](#)

### thanks

thanks for the insightful article...

[Reply](#)

### A great speech on innovation

yeah, there are great people in this world. They think, imagine,

explore, innovate & inspire. Mark Zukerberg, Larry Page and many more are there...!

they do this all at the early ages of their life.  
take a look at how and when to innovate on the following link.

<http://www.the4thdimension.net/2010/12/when-and-how-to-innovate.html>

[Reply](#)

### Very good insights

Thanks for translating myth into educational reality.

[Reply](#)

### You Can't Innovate Like Apple

Thanks Alan for this wonderful article, Very Insightful, Thought Provoking.... Best Wishes..

[Reply](#)

### You Can't Innovate Like Apple

Thanks for this detailed insight, I found it really interesting and path-breaking....especially their passion for perfection "they inherently plan to throw away 90% of the work they do".

[Reply](#)

### Thanks for the Sketchnotes Mention

Alain, thanks for mentioning my SXSW Interactive 2008 Sketchnotes in your article. Here's the direct link to those sketchnotes on Flickr:

<http://www.flickr.com/photos/rohdesign/sets/72157604109069527/>

Cheers!

Mike

[Reply](#)

### Ammunition for Product Managers

I am a new Product Manager for a brand new company whose CEO is a visionary not unlike Steve Jobs. Thanks for writing this article and pointing me to great PM resources.

[Reply](#)

### RE: Ammunition for Product Managers

pixelpunk - you are truly blessed if you've found a visionary CEO who knows how to drive the team forward in a fashion similar to Steve Jobs. Hold tight to that opportunity and make the most of it. I'd love to hear more about the company in question out of personal curiosity - I believe there are many strong examples of innovation expertise matched with operational excellence but they can be hard to identify since many tend to fly under the radar while people marvel at how exactly they perform so well.

[Reply](#)

### Excellent!

Best article I have read on the subject all year!

[Reply](#)

### RE: Excellent!

Andrew,

Thanks, I'm glad you enjoyed it. I have to admit I'm a little overwhelmed by this sudden flurry of interest around the article so long after it was originally published. On top of which, it all seemed to happen while I was on a fully unplugged vacation over this last week. Wow, I'm glad so many people responded to the insights. And I have to say, much of the excellence is due to the original sources: Michael Lopp and John Gruber who hosted the session at SXSW 2008 as well as the many creative people who captured their insights. I stand on the shoulders of giants and thank the editorial staff at Pragmatic Marketing, including their leader, Kristyn Benmoussa, for helping refine my original draft.

[Reply](#)

### Great Article

This is great insight into the Apple design process. They truly put their money where their mouth is, and it pays off. Most of us strive to be more like Apple, but it seems like no one will ever be as committed to perfection as Apple is now.

[Reply](#)

### RE: Great Article

Travis,

I thought it was amazing too when I first came across the notes of Lopp and Gruber's presentation. It helps to understand how the sausage is made, though admittedly I think I would prefer to get a truly unbiased insight into how the sausage factory REALLY works at Apple. Given their secrecy though, I doubt the world will ever really know.

That said, I believe there are other exceptional companies out there who design products and experiences with such a highly tuned attention to detail. Pixar - funny enough, another Steve Jobs endeavor - is one of those examples. And once upon a time, Disney was as well. But as Disney demonstrates, it is possible to lose the original attention to detail that made the organization great. The question is whether a company can maintain that legacy or whether it is merely a product of a certain group of people during a specific period of time. We may soon [or later than soon - hopefully] learn if Apple truly can continue down this path as Jobs fades from his daily engagement with the company.

[Reply](#)

### Apple's secrets

Me and my son were in line on the first day iPad was sold. Have loved Apple products for a long time. How many ever tablets hit the market, I doubt if even one of them will have the magic.

Toyota enlightened the world with The Toyota Way. All I can hope is that Apple does that. When Apple releases a magical product its far more than the product, it's a philosophy.

[Reply](#)

### Keep your analytical MBA's out

In order to design great products, you have to keep your analytical left brained people out of the designing process.

Once the product is ready to build then you bring them in or you won't get anywhere because analytical people can't think strategically and don't have the empathy towards the user and design. They are the people who think, we need a faster horse or if we just pile in these features plus two more we can be the competition...aka they don't understand experience. This something you can't teach.

That being said you need to have designers that appreciate, understand and know that just cool doesn't mean sales. In other words you don't put your graphic artist in charge. Find someone who was a graphic artist, was developer/product engineer, and who is educated in or has worked in marketing.

Yeah, yeah, yeah...I know the argument...you need the analytical MBA's or nothing will get done or it won't be built for the right target. No, your company just didn't hire the correct designers and developers. Proof? Look PALM and Nokia. I can guarantee they have tons of MBA's and engineers that are given more clout, responsibility and are in the initial meetings upfront in their NPD process. See how far thats getting them, plus they have years and years more experience than Apple when it comes to cell phones. So why are they losing? It sure isn't because of cost structure...its all lack of a good product.

[Reply](#)

### RE: Keep your analytical MBA's out

Jason,

Thank you for bringing up this topic. I never directly addressed the question of who should be involved and when in the new product development effort. We know a little about the approach Apple takes thanks to some articles and the Lopp & Gruber presentation. I think however it's not clear what roles people with MBAs play here and believe more data is required before casting a damning shot at the analytical team (which probably includes the executives - as Lopp discusses the question of keeping those who sign the paycheck happy). I can't tell whether MBA in your mind is a shortcut for "Product Manager" or "Product Marketing Manager" but I will say that they have important roles in the product development cycle. However, for true innovation and NPD efforts, I do agree that you need people with strong literacy in design, customer insight, a broad strategic tool belt and who are fluent with the technologies the organization is seeking to pursue. Whether or not this team includes MBAs really depends on the backgrounds and capabilities of the

people.

I tend to agree with IDEO as they state in the recruiting section of their website, when it comes to innovation you want to look for people "talented people who have a wide range of interests. Most [of these people] have advanced degrees or significant experience working in a specific field, but they're not specialists. [You should] look for people with at least one deep area of expertise and a broad reach of other skills and experiences to draw on, whether from past employment experience or personal endeavors." I've met some extremely skilled designers and also some amazing analytical people who happen to hold MBAs who would fit just that description and whom I have witnessed come up with absolutely extraordinary solutions to problems. It's really the skill set and less the degree in my mind.

That said, every stereotype has a kernel of truth within it and given the examples you cite, it's possible the MBA's could be at fault. Then again, I would wager it falls more heavily on the heads of the CEO and the executive team for their failure to inculcate or continue a culture of innovation that directly focuses on solving problems with more elegant solutions.

You and I agree, it's critical to find the right people to run the NPD effort.

[Reply](#)

## Market research 2

To add to my earlier comment I think there are two types of research and I try to get my own students to see this.

Traditionally design students use the word "research" to mean going out and finding something out to answer a specific problem. So you hear designers use the word research to mean collecting samples of existing design, talking to clients about their needs and so on. Students mean going to the library and looking for "inspiration" etc.

When I talk about research I mean it in the way I think Apple do it. It means taking a deep interest in the world around you. It means reflecting on your own experience and the experiences of others. It means reading and watching and listening to things with thoughtfulness. This is where ideas spring from.

The iPhone succeeds because the people designing it understood the issues surrounding mobile phones because they practised this mindful research as part of their everyday life. They didn't get a commission from a client or boss to "go out and find out about mobile phones".

I think the "we don't do market research" aspect unhelpfully muddies the water. It returns to the idea of the designer as creative genius sitting in his garret waiting for the muse to strike from above. Innovation and creativity don't work like that.

Proper, really useful market research is everyday reflection that leads to a deep and often tacit understanding of the world. From that springs ideas and responses to questions like "what do we hate?" Innovators need to be experts not in innovating but in seeing the world. Sadly I think as educators we miss that, and inculcate our students with an obsession with technique and craft, pushing "research" to the background. It shouldn't be. An innovator needs to be researching constantly. It should be a core skill.

[Reply](#)

## RE: Market Research

Jonathan,

Great thoughts and thank you for contributing to the conversation on how to really understand a consumer's needs and how this contributes to the innovation effort. You're right, Jobs does unhelpfully muddy the water when he says they don't do market research but at the same time he's probably being absolutely truthful. When you talk about market research in the classical sense, most people (at least Brand Managers) tend to think of panels, surveys and focus groups. These days, the enlightened designer or product manager realizes that cultural immersion is necessary to understand the ins and outs of the problem area and only then can you begin to formulate the outlines of what a successful solution might look like. From my own understanding in reading between the lines and talking to a handful of former Apple employees, your description mirrors my own observation, that "you need to thoroughly study behaviors and interests of those [you] think will be [the] early adopters."

[Reply](#)

## Market research

I think Apple's claim re market research is a little misleading - of course they do market research and they're the best at it (unless you count the way the App Store is going down with developers...) The "what do we hate" question is the fundamental root of market research. This is followed by "how might we improve it?" And when the improved version is produced it's tested - an old knows Apple test things out! Interfaces, connectivity, usability, all tested, retested and improved. That's market research.

What is meant by the phrase used here is that they're not market research driven - in other words no one at Apple does a presentation and shows a gap in a market and says "we should develop for that gap". They're not focus group driven - nobody at Apple gets members of the public together and says "what do you want that will make your life better?"

In other words, there are certain \*tools\* of market research that Apple doesn't use, or isn't driven by. But to say they don't use market research is rubbish. Innovation is driven by understanding the market - think about things like wireless cards in laptops, the move to 3G for the iPhone, the development of the iPod Shuffle, adding video to the iPod 3GS.

And despite what the myth says about Apple and market research, if they really didn't think the iPhone would sell, do you think they would have produced it? Of course not.

Now that's not the same as saying they wouldn't have \*developed\* it - the iPhone UI, specifically Safari, came out of another project, and the number of patents Apple secures each year show that there is a lot of blue sky thinking going on there, only a small portion of which sees the light of day. But developing something and launching/producing something are different - the former is driven by curiosity, the latter is driven by market demand (even if the demand is waiting to be created by the thing itself, a la the iPod). Where Apple succeeds is in allowing curiosity to drive its development, and marrying that to a canny understanding of the market. And that comes from understanding the market, and that is another word for research.

[Reply](#)

#### Lorem ipsum

Great article. Only one remark: Lorem Ipsum is not Greek but fake-Latin. It is the beginning of Cesar's "De Bello Gallico" with fake latin words next.

[Reply](#)

#### What?

"The designers at Apple are paid 50% more than their counterparts at other organizations."

Who exactly would be a "counterpart" of an Apple designer?

[Reply](#)

#### RE: What?

Their counter parts would be the people or person in charge of product design/development so for say Palm or Dell it is probably a Product Development Professional (aka Engineer who got an MBA and went into management) or Product Manager.

Product Manager's in most orgs are pretty much middlemen. And middle in every industry only care about themselves, their money, and the power they have in the channel (aka survival). These middle men usually end up bastardizing products as most orgs are structured so that the Product Managers get to regulate or dumb down the design of the product as its leaving the designer/developer planning stages, they are overseers. If you think about, in most orgs PM's are given something, in this case a combo of art/industrial design, pure geektom with an artists touch, to an analytical PM who knows only to look at things from feature/function standpoint. So they strip out the experience. Why would you do that? Make PM's under or ask permission to strip out experience, from the designer/developers. What if Van Gogh gave his art to a PM before it went to market or before he painted it? The PM would probably say "You have paint something relevant today, something that wouldn't offend anyone, something that meets the requirements of people age 18 to 42 with a male slant to it, and the colors should be bright and happy to grab attention, yet make people warm on the inside".

If not then you end up with HP, Dells, Palms, etc... I can keep listing and listing all day.

[Reply](#)

#### RE: RE: What?

Derek,

See my earlier response to Jason further up the comment stream where I attempted to anticipate a comment that connected MBA = Product Manager. Not every organization I have seen allows what you describe to happen. In fact, organizations that produce more consistent success in their NPD efforts remain true to the original insights that the designer AND the rest of the cross functional team developed. Some PM's have complete ownership of the solution from concept to launch and on to market development. Other PM's fall into the middle man role and if they ARE bastardizing the solution - you're right, it does happen - then shame on the entire organization for allowing this to happen. A truly successful NPD effort ensures that the insights and core requirements for success of the solution move forward with the product / experience throughout the full product development cycle. If that is not happening then something more than a BAD PM is stinking within.

That said, I have witnessed amazing designers hampered by a limited vision of what the solution should be. I've also witnessed designers run amuck coming up with something that is so elegant and yet so far off the mark and flawed. The Apple Power Mac G4 Cube and the Apple TV both come to mind when I say that. :)

[Reply](#)

#### Cheers.

This is absolutely brilliant and one of the best posts I've read in while. Like yourself, by the sounds of it, I roll my eyes when clients tell me they want to innovate or for us to design a customer centric experience like Apple. I won't mention names but I've worked alongside some major electronic brands and explained to them that Apple have successfully linked all the dots together: software, hardware, online and offline (in store experiences). They understand the role of each customer touch point and how each compliments the other. Sounds simple but all this requires a cultural shift from the inside out, which is the major challenge for most. Thanks again for this valuable insight.

[Reply](#)

#### oh come on!

Articles like this make me sick -- articles that attribute brilliance to a company when luck or greed were the true drivers of success. For example, earlier this decade, there were articles just like this one that extolled Dell's brilliance -- Dell had innovated this and dominated that, they said. Every management and innovation guru used Dell as their poster child until it was over used. Now, it's Apple's turn.

Let me explain how it Apple's innovation really happened. Jobs started hanging out with the Hollywood crowd as Pixar CEO. He recognized, along with the rest of the planet, that the music industry was being massacred by radical innovators like Shawn Fanning from Napster. The music industry was weak and venerable so Jobs negotiated -- and he negotiates hard -- to come up with a DRM-rich platform that would save the music industry -- he's a great marketer, right? The music industry agreed because he was an insider, just like them. Jobs returned to Cupertino and assigned someone to figure out how to assemble an MP3 player quickly? Apple's engineers scoured Silicon Valley and found all the components it needed to build a decent MP3 player -- not one bit of hardware was invented by Apple. After developing it, they set the price at bargain basement prices to stimulate interest -- remember the first iPod's were cheaper than the price of the HDD inside, so users bought the iPod and removed the HDD for other purposes.

So, follow me so far? Napster and others destabilize the music industry so there's blood in the water. Apple finds technology in Silicon Valley that can make an MP3 player and they sell it for dirt cheap. Then, Apple borrows technology from other Silicon Valley companies to create iTunes (e.g. Gracenote and Oracle).

So, where's the innovation?



Design is important: I agree that the products need to look great, but come on. Customer focus is key: Apple's recent efforts to block Palm from using iTunes and to prevent customers from using Google Voice are NOT customer focused. Apple is not very different from Microsoft afterall. In the end, Apple will be like Dell. Over-used in all the wrong places. Lucky or greedy, I'm not sure yet.

[Reply](#)

**RE: oh come on!**

Paul,

I love your passion! And agree with many of your points. You ask the question where's the innovation? Before I respond to your comments I would inquire, how do YOU define innovation?

My own response is fairly well defined in a [post](http://pictureimperfect.net/2007/06/01/designing-for-the-worlds-poor/) I wrote on my blog back two years ago. You will note in that article my own frustration with how knee-jerk people are about declaring Apple innovative. A quick summation of most experts is that innovation means developing a culture or attitude focused on delivering the products and services that dynamically anticipate the future and precisely solve the problems faced by the target end user. Both Apple and Dell offer solid examples of what Clayton Christensen would call disruptive innovation. But as the example of Dell demonstrates, it's possible for a company to lose their vision and completely stumble after they have saturated a particular market space or their original innovation becomes stale and poorly matched with the new market realities. And as you state, it's possible for a company to lumber along acting insensitively to what their customers want in some segments of the business, just like Apple is doing with Google Voice and the AppStore restrictions. Apple has all kinds of warts here.

Still, this doesn't detract from the fact that Apple are doing many things right and this makes them worth studying. Greed may be the motivator, but the wise innovators do their best to make their own luck.

Your description of how Steve Jobs wormed his way into the graces of the music industry are entirely accurate and it's absolutely true that Apple latched on to existing technology in order to gain entry into the MP3 player + online music store market.

But, the true innovation, was the seamless integration between MP3 player, software for managing playing music on the PC, and the online store. Remember, back in 2001 there were several successful players in the digital audio player market: Diamond Multimedia (Rio), Eiger Labs, Compaq and there were several popular services: Napster, Yahoo, MP3.com, RealNetworks, etc. But Apple came along and provided a vastly superior user interface (whose creation while outsourced, was still overseen by Jobs and Ive) and a very simple integration. Apple was one of many, but quickly outpaced all of them to the point that now they are the #1 music retailer in the US - even outdistancing Walmart. And Apple has not sat still either. They recognized that music phones were outpacing digital audio players and so they created a sustaining innovation for iPod sales by releasing the iPhone which at the same time has created a disruptive innovation for mobile phones, especially smart phones and mobile computing.

All of this has been consistent with Jobs' vision of making Apple the digital hub for working with software, pictures, movies, music, and more. No longer is the company called Apple Computers but instead simply "Apple" to reflect this change. Very soon Apple may have a large share in the point and shoot camera market and low end video camera as well given the improvements they have made to the camera in the latest generation of iPhone and soon to be iPod. The company that was once scoffed at for being a small player in IBM and Microsoft's big market has turned the tables and become a goliath in the consumer electronics market. And they're even overtaking Microsoft in the high end computing market where they now own 91% of sales in >\$1000 computer sales. This is a huge shift from where they once were in the early 90's.

Will someone displace Apple as the leading digital audio player, music retailer, and growing giant in mobile computing? Possibly, but only if they, like Sony did with the Walkman, lose sight of how their consumers and markets are evolving and how their products and services need to shift with them.

The point is, Apple's attention to detail in working to consistently improve the interfaces, delight consumers, and capture a greater share of the value in their target markets shows true expertise in product development, business model and operational innovation. There are a number of other organizations out there that are demonstrating similar excellence and if you have suggestions I am happy to hear about them.

[Reply](#)

**misleading stats**

"And they're even overtaking Microsoft in the high end computing market where they now own 91% of sales in >\$1000 computer sales. This is a huge shift from where they once were in the early 90's."

Isn't this a lot like saying Mercedes dominates Ford in sales of cars over \$50,000?

[Reply](#)

**don't forget they released on iTunes windows!**

If you go look at the growth curve of the iPod you will see a sharp incline once they released iTunes on the windows platform - expanding their market opportunity greatly. Funny how they can play nice with other platforms when it works for them while at the same time limiting access to their own. Shrewd!

[Reply](#)

**(dog and) pony show?**

I haven't made it to any of the other links yet, but... are you, is everyone, comfortable with definition/description of the "Pony Meeting" that's been offered? As I read through it, I thought, nice image there, but that sounds a whole lot like what everywhere else would be called a "Dog and Pony Show." Doesn't it? Those \*are\* used to keep (senior) people in the loop and all, and give them

opportunities to "contribute," but mostly to get them (all) to "sign off" and please go away and back to playing golf or whatever so that we can get to work, won't you?

I might be being too cynical. Maybe.

[Reply](#)

#### RE: (dog and) pony show?

Eric,

Thank you for contributing to the conversation here. I cannot speak for Apple, only Michael Lopp and other Apple employees can on this question. But, let's consider the possibilities and what we know of the culture as well as what the ideal should be, and see where that leads us.

Who attends the pony meetings? Steve Jobs. And if Jobs does then I suspect, Tim Cook. Jonathan Ive. And depending on what the product is, a rotating cast of probably Bob Mansfield, Mark Papermaster, Phil Schiller, Scott Forstall, Bertrand Serlet, and Sina Tamaddon. Many of these guys worked at Apple before Jobs left and then returned in 1997 when he came back. Some of them worked with him at NeXT. A few have only been with the company for only a couple of years - Papermaster being the most recent hire of the important product executives - and he replaced Tony Fardell who was the father of the iPod. But even Papermaster is hardcore - he's considered one of the leading authorities in the field of chip design.

Now there are probably others who participate but think about this, the majority of the executives have been working with Jobs for 10-25 years on average. That creates a cultural continuity around a string of successes that led to the resurgence of the company as a leader in software, computing, and consumer electronics. Given his peculiarities as a boss and his legendary demanding nature, these guys have to be more than the fat headed executives who call it in every few weeks but really just oversee the guys who do the real work.

To survive in Apple's product leadership and under Steve Jobs' watchful eye I think it's safe to say you have to possess at least two characteristics:

1) Be opinionated and willing to share that opinion when it comes to focusing on the details of design and fit to the objectives of the product. (Of course, you probably also have to know how to use verbal jujitsu and concede defeat when the supreme leader makes his will known but that doesn't mean they're not GREAT at throwing the elephant too.) See Stanley Bing's book if you're not sure what I mean about the elephant: <http://www.amazon.com/Throwing-Elephant-Zen-Art-Managing/dp/0060188618>

2) Be an active source of improvement and innovation in expanding on a product's direction (I'm not saying you have to bat 1.00 but those hitting less than .250 probably don't last long either in their roles or in their participation in the pony / product progress review meetings) while at the same time hold a project team's feet to the fire of reality - asking the tough questions.

But back to that concept of cultural continuity. I suspect the pony meetings are fairly lively and that there is some element of the design/product team coming in geared up to hopefully emerge unscathed by the unrelated "contributions" that the executives attempt to pile on top of their "pure" product. However, I also expect with the depth of experience and length of time they have collaborated together as an executive team that these guys aren't easily appeased and often leave the meeting having improved upon the product rather than detracted.

Now, as for the ideal. Pony meetings for any organization need to happen on a regular basis to keep the vision and organization aligned. You have an opportunity to build enthusiasm, gather insightful critiques and adjust accordingly. And if properly structured and with the right participants these meetings should be much more than status updates but instead an opportunity to refine the product direction and collectively improve upon it.

But I do hear you Eric, often "product update" meetings are little more than giving the execs something to chew on while playing defense to prevent them from over adjusting. In fact, from what I read on Lopp's blog, there is an element of that going on at Apple too - they are human after all.

[Reply](#)

<http://www.themadpeacock.com>

I really enjoyed this, I will point every CEO that says.. "I want us to design products like Apple" to this article.

[Reply](#)

#### Propaganda is what Apple excels at - not innovation

Apple does not necessarily innovate (anymore) - rather, it is the PERCEIVED notion of quality perfectness and/or innovation that Apple instills in its customers. And they are very skillful at that. In this sense, that latest research on iPhone users is quite enlightening: [http://news.cnet.com/8301-17852\\_3-10414356-71.html](http://news.cnet.com/8301-17852_3-10414356-71.html)

"3. Apple owns their entire system."

Apple has also become one of the most protective and closed companies I have ever seen. In comparison, Microsoft's behaviour is more akin to an open source company.

"4. Apple focuses on a select group of products."

Yes, although they are leaving the group of people whom Apple could rely on when things weren't so rosy-looking only a couple of years ago: designers. They are far more focused on products that possess mass appeal now, rather than any specific elitist group. Good or bad?

I used to be a huge fan of Apple. Until a couple of years ago, when the focus shifted to selling the same old empty designs again and again to the masses. In my opinion Apple lost its soul. Perhaps I just like small companies that actually innovate - Apple IS wearing no clothes; they just say they do, and the masses follow. They were innovative, alright: propaganda is innovation.

[Reply](#)

### I Hate Apple!

Apple is a Monopoly!

[Reply](#)

### What is Art?

I really enjoyed this piece. It really struck me that there is a real difference between an organisation that is sale driven and an organisation that is design driven.

One quibble I have is with the idea that "Apple doesn't sell functional products; they sell fashionable pieces of functional art.". While all art is commoditised, Apple's products are commodities, beautiful devices designed with a specific utility in mind. Art really has no function other than politics. Apple's products might be artistic but they are not functional art.

[Reply](#)

<http://beesocietal.blogspot.com/>

Hi Alain,

I must appreciate the way you have put down the contents of your post, it was very informative and well organized. Every one talks about Apple and it's products but this post talks why people talk about Apple or why apple hits the bulls eye every time. I agree that to make world class product you don't need managers but leaders who know what they want and can drive the team to work. More above if they say we can be like Apple or follow them then they can't be. unfortunately we have too many managers and very few leaders.

cheers,

Prasant

[Reply](#)

### INNOVATE THE PIXAR WAY

As we write in Innovate the Pixar Way, INNOVATION BEGINS IN HR! An innovative culture is a more important factor in the HR department than in the engineering, new product development, or marketing departments. If HR hires dull people, the result will be a dull and unimaginative culture. Exciting people are a must for an inspiring, innovative culture!

[Reply](#)

### Gr8 article

Thanks Alan! Very insightful!

[Reply](#)

### Nintendo

"They own the OS, they own the software, and they own the hardware. No other consumer electronics organization can easily do what Apple does because they own all of the technology and control the intimate interactions that ultimately become the total user experience."

Nintendo is in this position as well, as far as consumer electronics go.

[Reply](#)

### Some parts of the Apple stable are actually poor quality

Recent iTunes upgrade have soiled the Apple reputation for perfection. Google for "itunes 10 bugs", and see how many answers involve "Do a factory reset (which wipes all your content)".

[Reply](#)

### greatttt

i used this for a major research paper on apple. thanks

[Reply](#)