

Trademarks, Not Patents: The real competitive advantage of the Apple iPod

By James Conley

Introduction

The contemporary press is flooded with articles and commentaries extolling the phenomenal success of Apple's iPod. It seems everyone has an opinion as to how design has contributed to the dominance of Apple in this lucrative, emergent market, targeted—if not lusted after—by savvy high tech giants Sony, Samsung, Dell and Microsoft.

But I suspect that something more clever is afoot; that Apple's design strategy is in line with something we call "value transference." And if my suspicion is correct, the technology at the heart of the iPod will have little to do with their long-term competitiveness in the consumer electronics realm.

Each new iPod embodiment brings a fresh form, feature, function and cost based analysis: The New York Times' David Pogue offers good consumer reports on a consistent basis. Frog Design's Luke Williams suggests that the "clean" look of this product is an intentional consequence of references to the white ceramic and polished chrome tropes of the humble bathroom design experience—we keep calling the iPod such a "clean design" expressly because it references these materials and finishes; Susannah Cullinane of the BBC News suggests that the central iPod design elements were borrowed from the similarly successful Regency TR-1 transistor radio launched in 1954; Engadget's Clicker columnist Stephen Speicher postulates how Apple is poised to use the new iPod to capture the portable video market; still others propose that Apple is looking to control the cell phone handset, or video remote markets, with future generations of this product.

These reflections on design strategy are interesting, and speculating on future target markets is always provocative. But I suspect that something more clever is afoot; that Apple's design strategy is in line with something we call value transference—a dynamic strategy that can be quite successful in technology markets. And if my suspicion is correct, the technology at the heart of the iPod will have little to do with their long-term competitiveness in the consumer electronics realm. Further, if we look in the right places, we can learn precisely where Apple intends to move, leveraging the design of the iPod—but not the kind of design you think.

Research Foundation

At the Kellogg School of Management's Center for Research on Technology & Innovation, we study how contemporary firms use innovation and design to build and sustain competitive advantage. Of particular interest to our research team is the premeditated tactical and strategic use of specific intellectual property regimes (patents, marks, secrets and copyrights) in a time-sequenced manner.

Marks, unlike patents or copyrights, never expire if used properly. Registered design elements that serve as a brand foundation are therefore indefinite forms of competitive advantage.

Our findings overwhelmingly support the conventional wisdom that design decisions cast a big shadow on the commercial success of the product over its lifecycle. But more recently, we have found that some firms know how to build brand identity through great design, and they understand how to leverage and secure critical design elements and cognitive touch points of the user experience through non-traditional marks. In the process, they build strong, transferable brand identity throughout the product lifecycle that can be leveraged in future offerings.

This has led us to consider the possibility that the cognitive touch points of the user experience can be reconciled—and secured or monopolized—as unique brand elements through non-traditional marks. Marks, unlike patents or copyrights, never expire if used properly. Registered design elements that serve as a brand foundation are therefore indefinite forms of competitive advantage.

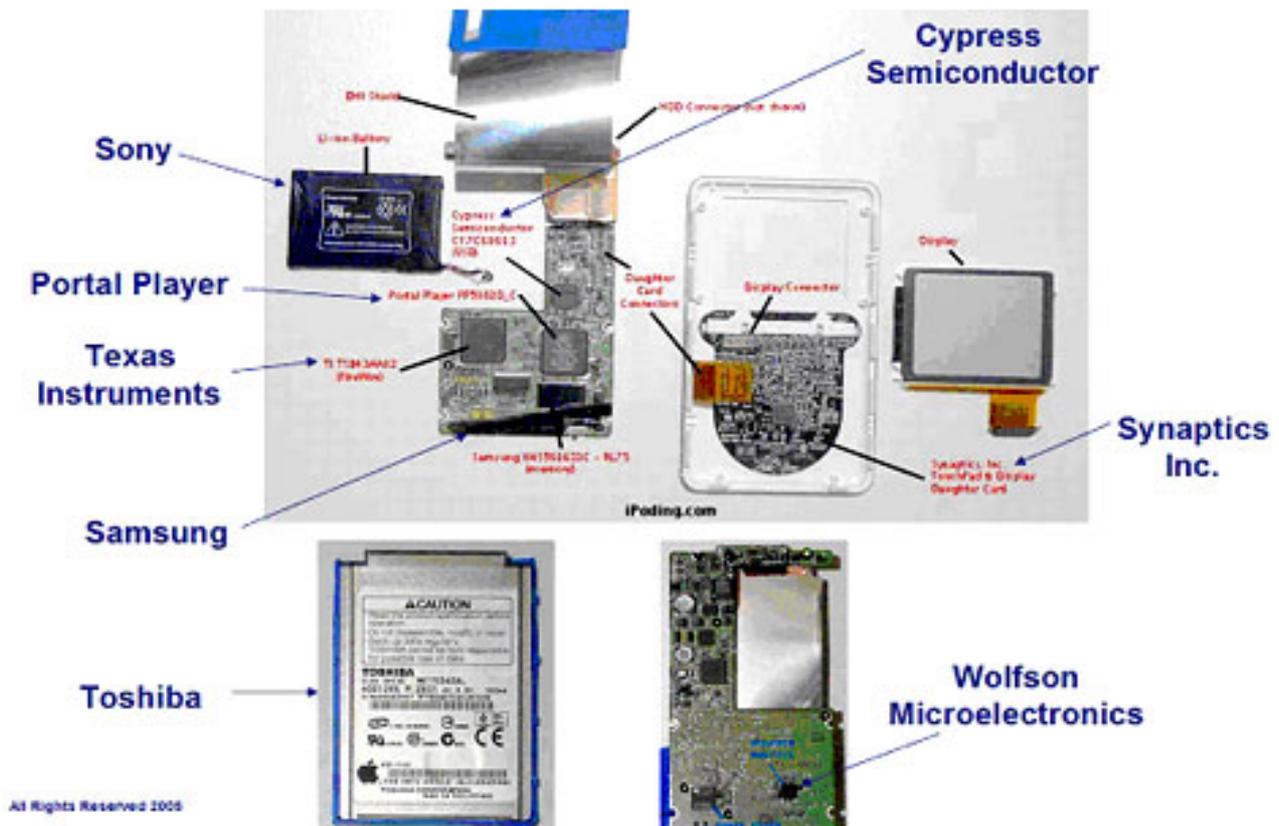
Value Transference

Value transference, in a nutshell, is the premeditated use of multiple intellectual property regimes at specific points across the product lifecycle, in order to realize sustainable differentiation. This is typically achieved by using patents early in the lifecycle to secure functional differentiations—such as new combinations of storage or battery technology (utility patents), and/or unique ornamental attributes (design patents). But while the focus of the functional differentiation remains unique at or near the launch of a new product, it is not sustainable. While a company has this advantage, however, they'll want to build an association between patented aspects of the offering, and a non-functional cognitive touch point of the user experience. The critical design elements central to the cognitive touch point (shape, color, sound) are then secured with a registered trademark. To complete the strategy, carefully orchestrated advertising builds the association in the mind of the target consumer. (Recall that trademarks can last indefinitely if used properly, and hence sustain the competitive advantage.) When done correctly, value transference helps to mitigate the enormous cost reduction pressures inherent in markets with short product life cycles such as electronics.

In today's global marketplace, it is axiomatic that successful innovations based on great designs will be emulated— and in some cases, boldly copied—without any regard for the intellectual property of the innovators.

Classic examples of value transference that contribute to enduring brand advantages include the Dolby name in consumer electronics, the NutraSweet red swirl in food ingredients, the Purple Pill (Prilosec and Nexium) in pharmaceuticals, Legos and Barbie in the toy market, and the shape of the Nintendo game boy or the original game controller. All of these now famous brands began as patented products—the Barbie doll included. Achieving this level of brand strength is the result of integrated product innovation and marketing.

Exhibit 1: iPod Teardown & everyone else's technology...



iPod dissection art via [iPodding](http://iPodding.com)

Applied to the iPod

So how does all of this apply to Apple and the iPod? A quick teardown of my iPod [Exhibit 1 above] reveals that most all of the guts of this product are made by others: Toshiba, Sony,

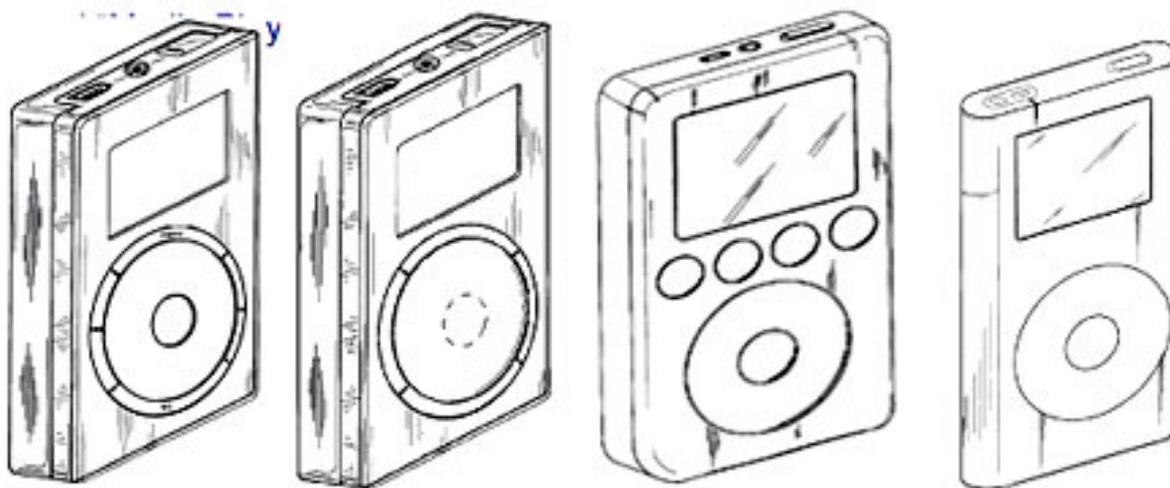
Portal Player, Samsung, Texas Instruments, Wolfson Microelectronics, Cypress Semiconductor, Synaptics and others—a veritable who's who in the high tech hardware industry. These suppliers keep their technology ahead of the performance and cost curves, and Apple benefits. Apple integrates these discrete components (through software intelligence) and packages them in the clean white-and-chrome "bathtub."

Apple, however, is not the only customer of these suppliers. Different divisions of the same companies are also direct iPod competitors, or wannabe competitors. A teardown of my Creative Zen Micro reveals similar components—perhaps from the same suppliers. As such, the technology in Exhibit 1 is not in completely unique to Apple. The internal hardware is thus not likely a source of sustainable differentiation.

When AstraZeneca launched Nexium in 2001, they used, and continue to use, the tag line "Today's purple pill is Nexium" in all their ads. Even the URL for their online patient information source is www.purplepill.com.

As heralded by others, the external shape and design layout of this product is unique, and serves as an important source of differentiation and brand identity for Apple. The aesthetics of the iPod have real meaning, and convey powerful messages in the user experience. The product is widely acclaimed as "great design." Great design however, in and of itself, is not a sustainable form of differentiation. In today's global marketplace, it is axiomatic that successful innovations based on great designs will be emulated—and in some cases, boldly copied—without any regard for the intellectual property of the innovators.

Exhibit 2: Ornamental protection of the iPod User Interface via US Design Patents



So if value transference is Apple's game, then there should be some patents securing the design—especially at this early stage of growth in the emergent market for digital music players. As shown in Exhibit 2, there are a number of images from design patents filed and issued to Apple by the US patent and trademark office (USPTO). Design patents are limited to ornamental considerations however, and are not difficult to circumvent. Further, they eventually expire, and as such, are not a sustainable form of differentiation, and hence, advantage. A brief, wider search of the online records of the USPTO reveals that Apple has a few utility patents for the iTunes software, but as Creative Technologies and Microsoft may eventually assert, Apple may not be the original inventor of the digital music player user

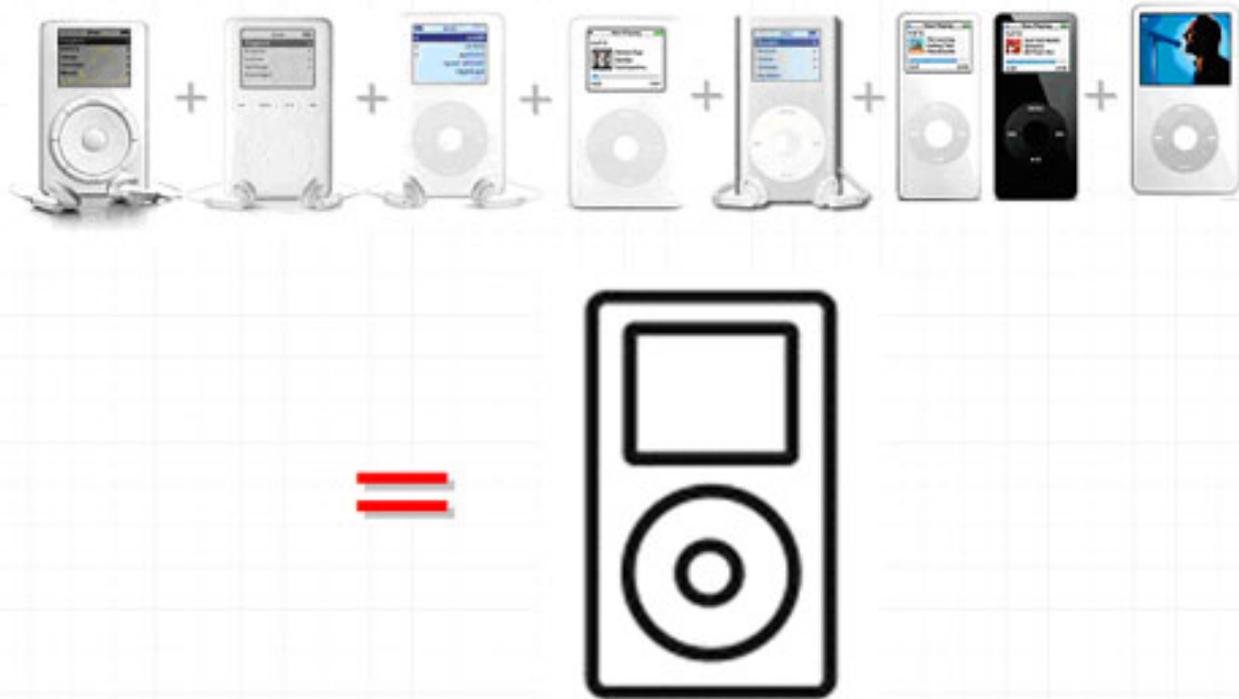
experience, or even the unique functionality of the iPod device music sorting and searching software.

But if value transference is Apple's tactic, there should also be some interesting trademarks surrounding the cognitive touch points of the user experience. And what would that touch point be for the iPod user? Well, what is the consistent element of their offerings that can be perceived by the Apple customer as truly unique?



To answer this question, it is helpful to examine the design evolution of the iPod over time (as illustrated in Exhibit 3). The design feature common to all of these embodiments is the round Click Wheel, consisting of concentric circles. Additionally, common to all offerings (excepting the Shuffle) is the square display screen. Exhibit 4 further compares how the various forms of the iPod over time (as presented in their online advertising) can be generalized and abstracted out, and represented by the 2-dimensional rendering at the bottom of the exhibit. Could the rendering—a clear cognitive touch point of the iPod user experience and one whose association with Apple has been cleverly developed through advertising—be monopolized as a trademark?

Exhibit 4: Evolution of the iPod Form...



A word on Non-traditional Trademark Registration

Non-traditional marks are not simply static graphical embodiments— such as logos. Over the last 15 years, mark registrations have evolved, incorporating more primitive design elements such as color, product shape and configuration, dynamic motion, sound and even scent—mirroring almost all aspects of human (read "customer") perception.

Successful registration of a trademark is the result of a process that examines the uniqueness and appropriateness of the desired design element as a mark. Word marks such as Nexium (pharmaceuticals) or Lexus (automobiles) are fanciful and arbitrary in their specific market contexts and hence easy to register. (The word Apple in the fruit business is generic and hence not registerable or protectable; Apple is however registered as a mark in the computer & consumer electronics markets, where it's a fanciful word.)

The registration of non-traditional marks such as colors, shapes, dynamic motions, sounds and or smells often require the demonstration of something called secondary meaning. This is a measure of association between the chosen source identifier (color, shape etc.) and the source of the goods, which must be objectively determined using third party market surveys. If the survey results indicate that there is a high correlation (more than 70%) between the source identifier and the source of the goods in the mind of the target market consumer (survey respondents), then secondary meaning may be satisfied and the mark registered.

The building of secondary meaning requires clever, premeditated advertising and promotion. The Pink Panther TV advertising campaign launched by Owens Corning in the 1970's lives on today at www.owenscorning.com. The conspicuous use of pink in their advertising sustains and continues to build their secondary meaning and trademark strength. When AstraZeneca launched Nexium in 2001, they used, and continue to use, the tag line "Today's purple pill is Nexium" in all their ads. Even the URL for their online patient information source is www.purplepill.com. And the website itself is dripping in purple; they clearly choose to emphasize this color design attribute in all of their advertising in a manner that builds and reinforces secondary meaning.

Unlike utility patents however, marks are limited in their monopoly power to specific markets for goods as claimed during the registration process. Further, trademarks cannot serve any function that impacts performance or cost competitiveness of the end product; marks, in general, are only to serve as source identifiers. So firms with strongly related design elements and functional attributes have difficulty defending trademarks on those aspects of a design that can be argued as functional. Lego's global legal battle on their trademarked designs are on the cutting edge of this debate, most recently disappointed by an unfavorable ruling from the Supreme Court of Canada. Specifically, the court held in a ruling issued in mid-November: "[Lego's claim] is barred by the application of the doctrine of functionality. This doctrine establishes that a mark which goes beyond distinguishing the wares of its owner to the functional structure of the wares themselves is transgressing the legitimate bounds of a trademark." Hence, designers must be careful and clear to avoid prosecuting marks that can be argued as functional.

The paper trail

More than 6 months ago, Apple quietly filed a US trademark application serial number 78661217. This registration is for the two-dimensional shape of the iPod front, as shown in Exhibits 4 and 5. Note that this is just an application one that has not yet advanced to the legal end zone of Federal registration. That, however, is likely their objective.

Exhibit 5: AND the latest IPR maneuver iPod TM application serial #78661217, Filed 6/29/2005

Markets protected by this Trade Mark?



- Portable and handheld digital electronic devices for recording, organizing, transmitting, manipulating, and reviewing text, data, audio and video files; computer software for use in organizing, transmitting, manipulating, and reviewing text, data, audio and video files on portable and handheld digital electronic devices;
- a full line of electronic and mechanical accessories and computer software for portable and handheld digital electronic devices for recording, organizing, transmitting, manipulating, and reviewing text, data, audio, image, and video files;
- docking stations; stands; battery chargers; battery packs; electrical connectors, wires, cables, and adaptors; wired and wireless remote controls; headphones and earphones; stereo amplifier and speaker base stations; automobile stereo adapters; audio recorders; radio receivers; radio transmitters; image scanners; video viewers; media readers; computer application software for recording and organizing calendars and schedules, to-do lists, and contact information; computer game software; computer software for clock and alarm clock functionality; carrying cases, sacks, and bags, all for use with portable and handheld digital electronic devices for recording, organizing, transmitting, manipulating, and reviewing text, data, audio, image, and video files

The intent to use aspects of the application indicates the markets and segments where Apple expects to claim the iPod form depicted in the rendering as their exclusive source identifier. Specifically, (as shown in Exhibit 5), they plan to claim this form for many markets beyond digital music players, including all "Portable and handheld digital electronic devices for recording, organizing, transmitting, manipulating, and reviewing text, data, audio and video files; computer software for use in organizing, transmitting, manipulating, and reviewing text, data, audio and video files on portable and handheld digital electronic devices." The trademark

application goes on to disclose software (including computer game software!), and an exhaustive list of accessories and peripherals for all of the above devices.

Their product roadmap would appear to be explicit in their intent to use application; since the filing date of late June, 2005, they have made good on the imaging, video and audio target market intentions with their newest products.

To be clear, Apple's trademark, if successfully registered, will not give them the kind of functional invention or ornamental exclusivity that one gets with of a patent (design or utility). It will, however, give them certain rights that will allow them to control who can use or leverage the unique display screen and Click Wheel visual attribute combination of this valuable market innovation. With such a registration, they facilitate the move of this popular icon and increasingly-pervasive cognitive touch point of the music experience into many markets as claimed. Worried about secondary meaning? Apple's market share is approaching 80%. They are the market; there is no competition.

Additionally, the trademarked icon is the symbol that represents the user experience innovations achieved through integration of their suppliers' technologies. The resulting performance differentiation now aggregates in the ubiquitous mark. The value of the patented designs and inventive technologies is transferred to the mark, and hence value transference is realized. Reverse value capture can then be pursued by licensing the use of the mark back to suppliers. They in turn benefit from using the icon on their packaging or website to positively influence point of purchase decisions (see exhibit 6).

Exhibit 6: Screen shot of Tuneware website and "Made for iPod" TM
Screen shot taken 11/23/05

The screenshot shows the Tuneware website interface. At the top, the Tuneware logo is displayed with the tagline "Wear the music. Hear the tunes." Below this is a navigation menu with links for "What's new", "Collection", "Support", "About us", "Contact us", and "Where to buy". A prominent yellow banner features the word "TUNECUP" in large, bold letters. Below the banner is a large image of a white iPod docked in a wooden cup holder, with a background of purple flowers. To the left of the main content area is a "Made for iPod" logo. Below the main image is a horizontal menu with tabs for "TUNECUP", "In car", "Indoor", "S-Video", "Line Out", "compatibility", "Cup Holder", "Adjustable", "Design", "Spec", and "Package". Below this menu, the "Made for iPod" logo is repeated, followed by the price "US\$39.95". A section titled "Ready for slideshows" contains text describing the product's S-video output capabilities. At the bottom left, it says "All Rights Reserved 2005" and at the bottom right, "© 2005 TUNEWEAR. ALL RIGHTS RESERVED."

Such a registration would cement Apple's monopoly on the associated design. Unlike the design and utility patents, the trademark registration could last indefinitely if properly used. This represents sustainability of the business model variety and, as such, secures the real competitive advantage of Apple's iPod.

James Conley serves as a Clinical Professor at both the Kellogg School of Management and the McCormick School of Engineering at Northwestern University. He is a member the Kellogg Center for Research in Technology & Innovation and serves as a faculty fellow at the NU Institute of Design Engineering and Application (IDEA). Beyond Kellogg, he teaches and does research in Asia (Keio Business School), Europe (WHU), Canada (Schulich School, York U.), and the Middle East (Recannati School, Tel Aviv U.). Beyond academia, he invents, acquires and licenses his portfolio of patented inventions around the globe. This professional practice informs and guides his academic research. At home, he is happily married to his kindergarten classmate Sally and they have 5 children.

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