

Adjusting The Dress Code: Implementing Trade Dress Reform to Burgeon User Experience (UX) Protections

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ABSTRACT

This article addresses the fundamental gaps in intellectual property protections plaguing the User Experience (UX). UX is the field of focus on user interactivity with interface displays. Numerous mobile and computer applications—including Facebook, Snapchat, and Uber—blatantly engage in the copying of one another’s UX, with de minimis legal repercussion. An exception within trade dress, the sua sponte “UX Exception,” is proposed as one of the most viable solutions to bridge the ever expanding disconnect between UX’s preeminence and inadequate legal protections.

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INTRODUCTION

Fresh advances in mobile, computing, and wearable technologies connect human-computer interaction (“HCI”) to nearly all aspects of human activities.¹ The focus on user interactivity with interface displays, also known as the User Experience (“UX”), is fait accompli for virtually all industries with consumer-facing components. Indeed, UX has essentially become a robust industry within itself. Both Fortune 500 companies and nascent businesses invest heavily in UX. Multi-million dollar investments predicated solely for UX and teams of dedicated UX design have become commonplace.

For consumer-facing industries in particular, the “look and feel” of a product’s interfaces are often more important than the embedded technologies behind the glass. For instance, Apple capitalizes on combining technical innovation with minimalistic interface design. As a second and perhaps more pertinent example, Facebook blatantly copied Snapchat’s UX interfaces to improve its own “look and feel” four times in a nine-month span, integrating Snapchat’s original UX into Messenger, WhatsApp, and Instagram.² Nevertheless, despite UX’s contemporary significance, fundamental gaps in intellectual property (“IP”) protections of an interface’s “overall appearance” and its “look and feel” remain. UX has arguably become a necessity for many companies, but organizations are simply not equipped with the IP protections to prevent knock-offs, nor is their UX innovation incentivized.

While traditional IP disciplines do protect some aspects of UX, these protections are insufficient. Under patent, copyright, and trademark law, some elements of the UX’s interface may garner protections, such as stagnant logos, words on a landing page, or the formation of a clickable button. Nevertheless, the IP landscape fails to encompass UX’s dynamic nature and quintessential combination of functionality and design. As the former director of the United States Patent and Trademark Office (“USPTO”), David J. Kappos,³ has stated: “[D]esign has moved onto a much larger stage. It is where high function meets high style. And the traditional disciplines of IP—patents, trademarks and copyrights—are no longer ends unto themselves.”⁴

Indeed, traditional IP disciplines, while significant, are limited. UX introduces an integral new dimension to the interface narrative. It integrates the user’s experience with the interface by combining different aspects of that interface, while also differentiating companies and brands from one another.⁵ Traditional IP disciplines are simply incapable of handling the compounded dynamic experience that UX displays.

1. See, e.g., Aline Chevalier, Anne-Claire Maury & Nicolas Fouquereau, *The influence of the search complexity and the familiarity with the website on the subjective appraisal of aesthetics, mental effort and usability*, 33 BEHAV. & INFO. TECH. 116 (2014).

2. Kurt Wagner, *Facebook copied Snapchat a fourth time, and now all its apps look the same*, RECODE (Mar. 28, 2017), <https://perma.cc/XV4A-JLKL>.

3. David J. Kappos, Partner at Cravath, Swaine & Moore LLP, previously served as the Undersecretary of Commerce and Director of the U.S. Patent and Trademark Office from 2009 until 2013.

4. David J. Kappos, *Design: The New Frontier of Intellectual Property*, NAT’L L.J. (April 22, 2013), available at <https://perma.cc/S4XB-MA69>.

5. *Id.*

Traditional copyright law merely prevents competitors from copying identical content, not closely tied changes. Trademarks do not protect the functional elements of UX, and may require several years to establish secondary meaning. Patents afford some protections; however, designs do not account for UX's dynamic nature. Moreover, utility patents are costly and may end up being frivolous, narrow, or too broad, which prevents timely UX development. Alas, a fundamental gap in UX protection exists.

Since UX developments are visible to a company's competitors, the fact that competitors can copy newly developed interfaces may ultimately discourage continuous UX innovation. From the reverse perspective, and perhaps more importantly, few legal guidelines exist for companies looking to "borrow" certain aspects of a competitor's UX. The mosaic of IP disciplines makes it problematic for companies to search and predict what facets of the UX are secure. Every UX under development today could potentially infringe hundreds of IP protections.

When it is difficult to predict infringement, the trepidation of latent liability encumbers the competitive exchanges of UX design. Companies' uncertainty regarding legal parameters might disincentivize further innovation. For UX to expand, companies must have the clarity to predict which aspects of UX are useable and which are subject to liabilities. Not only does the muddled UX landscape hurt businesses and products, but it also hurts its users. Therefore, a unified exception to protect UX is essential.

Countless examples of insufficient UX protections are emerging, such as Snapchat's inability to prevent Facebook from directly copying its UX into Messenger, WhatsApp, and Instagram.⁶ Transportation network companies, such as Lyft, Uber, Gett, Via, and Juno are also losing their unique interface identities in the rideshare app shuffle.⁷ With final features knocked off without repercussion, consumers are losing unique identifiers between company interfaces. The UX influx bombards consumers with similarly situated experiences in a multitude of channels, as unique brand identifiers continue to erode. As the lack of UX protections deters innovation, consumers will lose brand apperception.

Out of the respective IP disciplines, trade dress maintains the notion of innovation through competition and the free flow of ideas, while still ensuring that companies can protect their IP from imitation. At its core, trade dress enables companies to utilize their resources while still encouraging innovation of UX to continue to evolve. It is important to note that UX could technically remain protected under trade dress in accordance with the legal interpretations of some courts, but its application is still largely unprecedented.

This Article therefore proposes a sui generis UX exception within trade dress law, as a prophetic solution to the UX protection gaps. While this UX exception has drawbacks, particularly in its definition and possibility of IP squatters, it is only a slight adjustment from traditional trade dress law. Carving out a specific exception

6. Wagner, *supra* note 2.

7. See Kyle Wiggers, *Go ahead, have another one! 11 ride-hailing apps to get you home safely*, DIGITAL TRENDS (Dec. 31, 2016), <https://perma.cc/BX3R-8TG6>.

for UX will protect and encourage innovation for a variety of current technologies, as well as ex ante advancement of technology interfaces, 3D printing, gamification,⁸ wearable technologies, and virtual reality.

This Article is divided into three parts: Part I defines the UX and illustrates why it is important to protect. Part II discusses the gaps in contemporary modes of UX protections. Part III appeals for trade dress reform to acclimate UX within the IP landscape.

I. UNDERSTANDING THE USER EXPERIENCE

A. DEFINING UX

Although the term UX has become omnipresent, it has been objectively difficult to define because it incorporates functional and utilitarian modalities that are subjectively interpreted by the end user.⁹ There are therefore a plethora of existing definitions throughout multiple disciplines that range from quality-centric to value-centric.¹⁰ While UX is acknowledged by some courts to mean “the user experience,” little guidance beyond this definition is offered.¹¹ UX remains a debatable term that is still being defined and explored by researchers and practitioners.¹² To better understand UX, related definitions include:

1. The process of enhancing user satisfaction by improving the usability, accessibility, efficiency,¹³ and pleasure provided in the interaction between the user and the product.¹⁴

2. The totality of end-users’ perceptions as they interact with a product or service. These perceptions include effectiveness, efficiency, emotional satisfaction, and the quality of the relationship with the entity that created the product or service.¹⁵

3. Use of certain methods and techniques that are still applicable through process management to produce cohesive, predictable, and desirable effects in a specific

8. Sebastian Deterding et al., *From game design elements to gamefulness: defining “gamification,”* in PROCEEDINGS OF THE 15TH INTERNATIONAL ACADEMIC MINDTREK CONFERENCE: ENVISIONING FUTURE MEDIA ENVIRONMENTS 9, 10 (Artur Lugmayr et al. eds., 2011) (providing an explanation of gamification and its future implications).

9. Effie Lai-Chong Law et al., *Understanding, scoping and defining user experience: a survey approach,* in PROCEEDINGS OF THE SIGCHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS 719, 719 (Saul Greenberg et al. eds., 2009).

10. For a more comprehensive collection of UX definitions from literature and the Internet, see *User Experience Definitions*, ALL ABOUT UX, <https://perma.cc/8QUV-XTB3> (last visited Sept. 30, 2017).

11. Skyhook Wireless, Inc. v. Google Inc., 2012 WL 5309755, at *6 n. 6 (Mass. Super. Sept. 28, 2012), *aff’d*, 86 Mass. App. Ct. 611 (Mass. App. 2014) (understanding UX to mean user experience).

12. Lai-Chong Law, *supra* note 9 (“Although the term UX became omnipresent, the concept itself was neither being well defined nor well understood.”).

13. See, e.g., *100 UX Design Pro Tips*, UXD JOBS (Oct. 31, 2015), <https://perma.cc/44PT-RNLL> (stating that certain elements, such as product images or reviews, are assumed by users to be clickable).

14. Sari Kujala et al., *UX Curve: A method for evaluating long-term user experience*, 23 INTERACTING WITH COMPUTERS 473, 473 (2011).

15. See MIKE KUNIAVSKY, SMART THINGS 14 (2010).

person, or persona, all so that the effects produced meet user goals and measures of success and enjoyment, as well as the objectives of the providing organization.¹⁶

4. Practical, experiential, affective, meaningful and valuable aspects of human-computer interaction and product ownership, including a person's perceptions of system aspects such as utility, ease of use and efficiency.¹⁷

As these definitions suggest, a UX definition for legal IP application require three important considerations: (1) whether UX ought to be defined narrowly or broadly; (2) the discipline in which UX could be perceived; and (3) the scope of the experience that is being protected.

First, if one defines UX in a narrow and constrained manner, as something to do with just the design of a product or service, then that kind of user experience may not result in long-term differentiators.¹⁸ This could limit the importance of providing a sui generis UX exception. By way of contrast, if UX is defined more broadly, such as the strategy, innovation, and design of compelling, delightful, and persuasive user experiences, then there is bound to be long term differentiation and success.¹⁹ While the ultimate sustainability of a UX term favors a broader definition, the application of UX in the realm of IP protections warrants a narrower scope. It therefore requires a delicate balance.

As a second consideration, different perspectives may be utilized to view UX: it can be seen as a phenomenon, as a field of study, or as a practice. In this context, UX is a practice. Regarding legal protections, the underlying phenomenon and study of UX are what ultimately fuel its need for protection. This particular IP protection occurs in its application.

Lastly, the scope of the experience is limited here to human-computer interaction design and its "look and feel" of the overall layout that the user experiences with this interface. The "look and feel" is typified by layout elements such as typefaces, colors, and shapes of the graphical user interface ("GUI," pronounced "gooey") and the behavior of dynamic elements such as moveable buttons, boxes, and menus. In this context, the definition of UX does not apply to services or modes of implementation and is therefore limited to products.

One of the prevailing surveys, consisting of numerous researchers and practitioners, created a definition of UX consistent with applying UX in the context

16. Coined by Don Norman while serving as Vice President of Research and Head of the Advanced Technology Group (ATG) at Apple. Norman is viewed as the founder of UX, by recognizing it through a coined term. However, even Norman has conceded that UX has transformed even further than when it was first identified. See Gary Robbins, *Don Norman has Designs on Your Life*, SAN DIEGO TRIB. (Oct. 23, 2014), <https://perma.cc/2JAX-X7QR>.

17. Aaron E. Ghirardelli, *Rules of Engagement in the Conflict Between Businesses and Consumers in Online Contracts*, 93 OR. L. REV. 719, 764 (2015).

18. Kaushik Ghosh & Apala Lahiri Chavan, *Collaborating on ethnography & design research*, in Extended Abstracts of the 2004 Conference on Human Factors and Computing Systems (Dykstra-Erickson & Tscheligi eds., 2004).

19. *Staying Competitive through Strategic UX Design – A Conversation with Apala Lahiri*, HUMAN FACTORS INT'L 1, 3 (2013), available at <https://perma.cc/4JLZ-5VAH>.

of legal protection: “Dynamic, context-dependent and subjective, which stems from a broad range of potential benefits users may derive from a product.”²⁰

The UX definition will follow this definition in the context of an existing GUI for purposes of the proposal. This definition is limited to products but still encompasses the overall layout of a product. Furthermore, it broadly intends to benefit the subjective user, such as making the user interface easier to use or more pleasing. Finally, this definition denotes “potential benefits” which do not dictate inherent functionality for trade dress purposes. This definition is broad, but, at the same time, limits the purpose of the UX to the “look and feel” of the overall layout and potential benefits for its users.

B. SIGNIFICANCE OF UX

For virtually every user with access to a smartphone, computer, or interfacing technology, UX is omnipresent.²¹ The significance of UX continues to mature in lockstep with the evolving role of software.²² It is thus a critical component of nearly every consumer-facing practice.²³ Furthermore, companies invest millions of dollars in building new design centers and UX teams.²⁴ IBM, for instance, earmarked \$100 million for experience design in 2014.²⁵

Moreover, “[v]enture capital investors now counsel portfolio companies to build UX into the very fabric of their firms.”²⁶ It is now common for UX teams to number into the hundreds and it is one of the fastest growing professions in this field.²⁷ UX has become an independent industry.²⁸ A comparison may be drawn between this evolution and the evolution of the semiconductor industry, which gained recognition as an independent industry following sustainable business traction. Semiconductors

20. Lai-Chong Law, *supra* note 9, at 727 (surveying numerous researchers and practitioners to deduce a definition from the shared understanding).

21. David W. Cearley et al., *Gartner Identifies the Top 10 Strategic Technology Trends for 2016*, GARTNER (Oct. 6, 2015), <https://perma.cc/D534-RZNE>.

22. LEAH BULEY ET AL., *HOW TO MODERNIZE USER EXPERIENCE: IT’S NOT JUST ABOUT USABILITY TESTING ANYMORE* (Forrester Research ed., 2015), <https://perma.cc/8U43-HBCW>.

23. *Id.* at 1, 3 (design agencies including Fjord, Manifest Digital, and T3 report that they no longer have the need to explain the value of experience design to corporate buyers that they had even five years ago).

24. ANDREW HOGAN & DEANNA LAUFER, *THE SIX STEPS FOR JUSTIFYING BETTER UX* (Forrester Research ed., 2015), <https://perma.cc/3ESJ-VYSR>.

25. Core Jr., *IBM to Invest \$100m in User Experience Consulting, Hire 1,000 Employees Across Ten Interactive Experience Labs Worldwide*, CORE77 (Mar. 27, 2014), <https://perma.cc/RHJ8-7MF4>; see Katie Fehrenbacher, *A behind-the-scenes look at how GE is using design to change how people use its machines*, GIGAOM (Apr. 27, 2014), <https://perma.cc/7EL3-3GNF>.

26. BULEY, *supra* note 22, at 2. After Kleiner Perkins made news by wooing design leader John Maeda, Koshla Ventures added UX veteran Irene Au as a partner. The role of these experience design professionals is to help portfolio companies embed UX design into their products and their firms. Companies including Airbnb, Etsy, and Pinterest, are venture-backed companies founded by designers. See Cearley et al., *supra* note 21.

27. In accordance with Salary.com and Glassdoor.com based on DEPT. OF LABOR, OCCUPATIONAL OUTLOOK HANDBOOK (Dec. 17, 2015), available at <https://perma.cc/FM6T-GL8Z>.

28. See, e.g., Cearley et al., *supra* note 21.

are granted special *sui generis* protection under the Copyright Act, and their evolution is similar to that of UX.²⁹

Indeed, UX is an autonomous industry that continues to mature. Continual UX improvements remain undeniably pervasive as the benefits remain apparent.³⁰ Industry lore dictates that every dollar invested in UX yields an astounding range of two times to one hundred times return on investment (“ROI”).³¹ If ROI is not enough of a reason to incentivize UX development, additional benefits of UX include user retention,³² competitive advantage,³³ customer loyalty,³⁴ and the ability to make a consumer’s life better.³⁵ Note that there is a significant range of benefits that may point to UX’s dynamic nature as it continually adapts to provide solutions that drive digital business and innovation.³⁶

Continual changes in the UX display and content are frequent. After all, UX utilizes transitory modalities to continually increase the efficacy of a human user’s interactions. When technology advances, user preferences advance along with it. Consider the evolution of the iPhone and consumer penchants.³⁷ Companies must continue to adapt their UX while maintaining a level of simplicity and sophistication that user preference tends to demand. While the continual advancement of UX is important for companies to meet user expectations, it still begs the question why UX needs to be protected by IP, especially since UX has become prevalent without adequate IP protections. Therefore, this *ex ante* approach will first examine whether

29. The notion that the institutional environment of UX may be comparable to semiconductors, which was granted its own *sui generis* protection under the Copyright Act, was provided by Professor Liza Vertinsky, Assistant Professor of Law at Emory University School of Law. *See also* Gordon E. Moore, *Some Personal Perspectives on Research in the Semiconductor Industry*, in *ENGINES OF INNOVATION* (Richard S. Rosenbloom and William J. Spencer, eds., 1996).

30. Forrester has written about the benefits of improved UX since at least 2008. *See, e.g.*, MEGAN BURNS ET AL., *WEBSITES THAT DON’T SUPPORT CUSTOMERS WASTE MILLIONS* (Forrester Research ed., 2012), available at <https://perma.cc/3HDZ-Z4R4>; ADELE SAGE ET AL., *SMALL IVR INVESTMENTS THAT PAY OFF* (Forrester Research ed., 2009), available at <https://perma.cc/JB2S-VBMX>; MEGAN BURNS ET AL., *FIXING KNOWN USABILITY PROBLEMS PAY OFF* (Forrester Research ed., 2008), available at <https://perma.cc/AP6H-CNNN>; MEGAN BURNS ET AL., *HOW MUCH WILL YOUR WEB SITE METRICS IMPROVE?* (Forrester Research ed., 2008), available at <https://perma.cc/7DWF-KAW4>.

31. *See* DEANNA LAUFER, *COST-JUSTIFYING USER EXPERIENCE DESIGN: A REFRESHER BUSINESS CARE: THE DIGITAL CUSTOMER EXPERIENCE IMPROVEMENT PLAYBOOK* (Forrester Research ed., 2015).

32. *See, e.g.*, *UserTesting Case Studies*, USERTESTING, <https://perma.cc/6A2V-459N> (last visited Oct. 19, 2017) (“Evernote increases user retention by 15% with help from UserTesting.”). Evernote, along with other companies including Adobe and Zillow have validated increases in user retention through UX design.

33. Cearley et al., *supra* note 21 (explaining that competitive advantage hinges on exceptional user experience).

34. Forrester Research has found that user experience holds an advantage across three areas of loyalty: willingness to buy more, reluctance to switch, and likelihood to recommend. *See* BRUCE D. TEMKIN, *CUSTOMER EXPERIENCE BOOSTS REVENUE 1* (Forrester Research ed., 2009), <https://perma.cc/T4WN-Q9YV>.

35. LEAH BULEY, *BRIDGING THE CX/UX DIVIDE* (Forrester Research ed., 2015), <https://perma.cc/A3EP-YFAK>.

36. BRIAN PRENTICE ET AL., *COGNITIVE BIASES THAT KEEP UX DESIGN OUT OF THE ENTERPRISE 2* (Gartner Research ed., 2016), <https://perma.cc/L9DP-JT47>.

37. *Global Apple iPhone sales from 3rd quarter 2007 to 2nd quarter 2016*, STATISTA (Aug. 2017), <https://perma.cc/M3MK-L2PV>.

it is necessary to address the inadequate legal protections of UX's dynamic nature. This will be accomplished by determining if UX development is sustainable without legal accommodation, and if such legal accommodation could lead to damaging implications.

Industry leaders³⁸ and leading business institutions alike have recognized that the continual evolution of UX is imminent.³⁹ UX evolution is becoming even more vital to drive consumer adoption and deeper displays of affinity. Platform and application vendors are expected to continue adapting and delivering UX at an exceptional pace.⁴⁰ Interestingly, the desire to coordinate the use of an expanding device mesh beyond smartphones and tablets is already driving new UX models.⁴¹ Enterprise developers are also projected to increase their capacities to create sophisticated UX for target business scenarios.⁴² Moreover, the emergence of big data and the "Internet of Things" will up the ante in terms of UX's dynamic properties.⁴³ As elucidated below, it is beneficial to accommodate UX within the IP landscape to address current realities and predicted evolution.

C. ILLUSTRATION OF THE PROBLEM

While there are conceivably gaps in the protection of the overall "look and feel" of the UX, it is important to determine if these gaps require attention. This Article argues that the particular disparities of IP protection for an interface's "look and feel" could discourage business competition and UX innovation. As companies continue to invest in UX, the investment and innovation may be a hindrance in the future. Currently, UX is closely knocked-off with little predictive legal remedies or reproduction. Moreover, competitors are unclear what parts of the UX they can "borrow." Thus, incentivized innovation and innovation through close replication could be foreseeably stifled.

Today, countless customers expect complex systems to feel simple, relevant, and even magical.⁴⁴ The creation of UX, however, is far from simplistic.⁴⁵ The UX discipline is multifaceted, merging design and utility through ergonomics, economics, technology and HCI.⁴⁶ To ensure content is appropriately presented and received by

38. See MIT CTR. FOR DIG. BUS. AND CAPGEMINI CONSULTING, *DIGITAL TRANSFORMATION: A ROADMAP FOR BILLION-DOLLAR ORGANIZATION* 17 (2011).

39. Industry giants including IBM and GE realize that software design and human interaction is a fundamental part of their businesses. See Jon Kolko, *Design Thinking Comes of Age*, HARV. BUS. REV. 66, 70 (Sept. 2015).

40. See, e.g., Cearley et al., *supra* note 21.

41. Cearley et al., *supra* note 21.

42. *Id.*

43. BULEY, *supra* note 22, at 2.

44. See generally ALLEGRA BURNETTE ET AL., *THE POWER OF DISCIPLINED SIMPLIFICATION* (Forrester Research ed., 2014), <https://perma.cc/8L8L-L4SK>.

45. One should not confuse simplification with being simple. Simplified experiences bury complexity by being focused, fluid, and so attuned to context as to seem almost magical. *Id.* at 296-97.

46. Kai Richter & Volker Roth, *Human-Computer Interaction and Security*, in *ENCYCLOPEDIA OF HUMAN COMPUTER INTERACTION* 287 (Claude Ghaoui ed., 2006).

the end-user,⁴⁷ UX adheres to specific methods of information architecture, such as Mental Models, Fitt's Law, and the Hick–Hyman Law.⁴⁸

The Mental Models principle dictates that it is considerably easier for consumers to learn the modeling of new concepts after concepts that are already understood. Consider mainstream computer designs, where the operating systems imitate real world office concepts: desktops, folders, files, papers, and recycle bins. These paradigms enable consumers to attribute meanings they already understand to grasp models in the operating system. This practice has interesting implications for UX. Protection of a mental model, such as the “Trash” icon, could help companies protect valuable aspects of their interfaces. Furthermore, competitors possess a certain latitude to change the models without jeopardizing their underlying functionality. Perhaps this is why Microsoft chose the “Recycle Bin” metaphor—to avoid accusation of copying Apple's “Trash.”

Fitt's Law, another method used by UX designers, employs a mathematical formula to predict the time a consumer will move to a target: $T = a + b \log_2 (1 + D/W)$. The formula accounts for a target's size, function, and distance from another target. Fitt's Law enables UX to control the time it takes consumers to point a computer mouse to buttons on a webpage, for example: “Save” or “Delete.” By adjusting the “Save” button to a larger size, and placing the button closer to the mouse's predictive location, Fitt's Law dictates that the “Save” button will be clicked on more frequently. This also works in reverse, where the “Delete” button is clicked on less frequently when it has a smaller interface size and is further distanced from the mouse's predicted position.

The Hick–Hyman Law,⁴⁹ as a final example, states that increasing the number of choices generally increases a consumer's decision time logarithmically.⁵⁰ Each additional choice presented to the consumer progressively increases the time that the consumer takes to make a selection. In the UX context, minimizing the amount of choices increases user efficiency. This law, along with several others, principally encourages complex systems to appear simplistic to the consumer. Consider the Google interface, which remains simplistic and easy for users to navigate, while still holding a plethora of options and data beneath its surface.

Indeed, the production of UX is often far from simplistic. Countless hours, capital, and labor are routinely devoted to improving the usability and overall consumer experience. UX is intrinsically valuable for users and industry, especially when consumer interaction is the lifeblood of many products.⁵¹ Yet, current modes of

47. JOCELYN SPENCE, *INTRODUCING PERFORMATIVE EXPERIENCE DESIGN*, SPRINGER SERIES ON CULTURAL COMPUTING 1, 1-23 (2016). Consider the metaphor of an iceberg for conceptualizing UX, where most people only see 15-20% of the complex process.

48. Ross Johnson, *Ten Laws to Design By*, 3.7 DESIGNS (May 15, 2017), <https://perma.cc/8XJ6-X793>.

49. Sometimes referred to as “Hick's Law.” *Id.*

50. Andy Cockburn et al., *A Predictive Model of Menu Performance*, in *PROCEEDINGS OF THE SIGCHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS* 627, 628 (Bo Begole et al. eds., 2007), <https://perma.cc/HV5X-TB8B>.

51. Nicole Bashor, *The case for design patents in manufacturing and industrial technologies*, *INSIDE COUNSEL* (Feb. 4, 2014), <https://perma.cc/KV8D-KTXT>.

protection leave a gap in wholly protecting the UX. This current disconnect ought to be addressed swiftly.

Encouraging UX generation through a central mode of protection could help companies and competitors plan better. An IP exception ought to align with its core IP principal. Here, it is trade dress. Trade dress policy primarily aims to promote competition; interestingly, competitive advantage now hinges on user experience.⁵² This makes trade dress a proper fit.

II. CURRENT MODES OF IP PROTECTION

Under the current IP landscape, companies and designers that continually produce UX cannot practically comply with the current protections of patent, copyright, and trademark to protect the overall “look and feel” of a product. As explained below, copyright law and design patents do not wholly address the dynamic nature of UX. Partial protections of features, while important, do not encapsulate the entire “look and feel” reflected by adaptive UX. There is also a prevalent concern that UX is unable to maintain enduring value by being protected from knock-offs and competitors. Intellectual property law’s continuing failure to produce any clear framework for determining when information platform inventors can maintain proprietary control of their inventions undermines its ability to advance a coherent competition policy strategy.⁵³ For UX, this impediment is chiefly due to (1) the systemic limits in the distinct IP disciplines, and (2) UX’s constant modification to accommodate its users.⁵⁴

As Harvard Professor Arthur Miller stated, “American IP law is properly recognized as a work in progress.”⁵⁵ There is a need for IP to progress to accommodate UX’s dynamic advancement of technology and design. With the gaps of IP protections for high function and high design, patents, trademark, and copyrights are no longer ends unto themselves.⁵⁶ The nature of UX, which merges utility and functionality, presents a unique case that the current IP disciplines have demonstrated they are unequipped to protect. Moreover, current IP disciplines, with the exception of trade dress, do not account for an intellectual property that constantly changes. The protection does not allow for an evolving invention or source identifier. These systemic limits in patents, copyrights, and trademarks will first be discussed.

52. See Cearley et al., *supra* note 21.

53. Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 103 COLUM. L. REV. 534, 612 (2003).

54. Aaron E. Ghirardelli, *Rules of Engagement in the Conflict Between Businesses and Consumers in Online Contracts*, 93 OR. L. REV. 719, 770 (2015) (UX is constantly modified over time due to changing usage circumstances and changes to systems as well as wider usage context).

55. Arthur R. Miller, *Common Law Protection for Products of the Mind: An “Idea” Whose Time Has Come*, 119 HARV. L. REV. 703, 779 (2006).

56. See David J. Kappos, *supra* note 4, at 2.

A. PATENTS ARE PATENTLY WRONG FOR UX PROTECTION

Under patent law, an intrinsic dichotomy exists between design and utility. Thus, UX's nexus of design and functional utility is met with systemic limits in patent protection. The framework to protect the symbiotic elements of design and utility by patent is largely unclear. One example of a patent granted attempting to protect design and utility concerns a basic slider component common to numerous computer user interfaces:



*Slider*⁵⁷

The slider button and the design of the slider button are intrinsically different. Thus, no single patent could be granted for the design and utility. In a second example, a patent was granted for the ornamental design for a portion of a display panel with circular play icon, which is directly integrated with a utilitarian "play" feature:



*Play Icon*⁵⁸

In both examples, there are essential design and function components. Indeed, design patents should only protect ornamental designs and utility patents should only protect the utility. However, these examples incorporate ornamental designs with significant functional elements.⁵⁹ This is a systemic issue in the patent discipline.

As case law illustrates, companies including Apple, Samsung, and Adobe find the patent framework difficult to predict when features include both design and utility. The first time a patent attempted to protect both design and utility is seen in *Adobe Systems v. Macromedia*.⁶⁰

In *Adobe*, the court determined that two issued patents: (1) a GUI, and (2) the total user experience, were frivolous and rejected as certifiable.⁶¹ Since then,

57. U.S. Patent No. D554,140 fig.2 (issued Oct. 20, 2007); see Complaint at 29-31, Microsoft Corp. v. Corel Corp., No. 3:15-cv-5836-EJD (N.D. Cal. Dec. 18, 2015).

58. U.S. Patent No. D706,791 fig.1 (issued June 11, 2014); see also U.S. Patent No. D741,316 (issued Oct. 20, 2015) (patent on cutout on laptop lip for purpose of opening laptop).

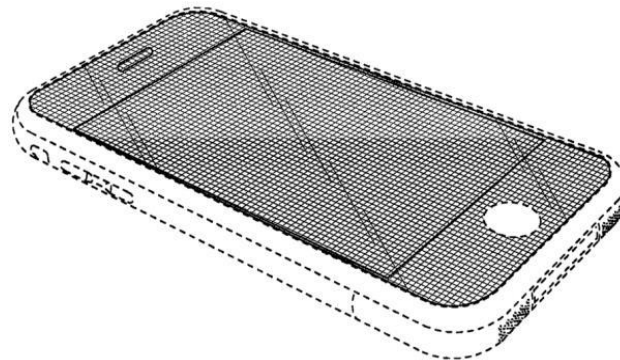
59. See Reyes Juárez-Ramírez et al., *Towards Improving User Interfaces: A Proposal for Integrating Functionality and Usability Since Early Phases*, 1 INT'L CONF. ON UNCERTAINTY REASONING & KNOWLEDGE ENGINEERING 119, 119-21 (2011), available at <https://perma.cc/83ZJ-Y847> (describing the usability design and program functionality of user interface).

60. *Adobe Sys. Inc. v. Macromedia, Inc.*, 201 F. Supp. 2d 309 (D. Del. 2002).

61. *Id.*

companies including Apple and Samsung have also had their own share of battles in this largely untested area.⁶²

In *Apple v. Samsung*,⁶³ a landmark decision, Apple accused Samsung of infringing seven U.S. patents relating to software features, such as quick links, universal search, background syncing, slide-to-unlock, and automatic word correction. Apple argued that, overall, the patents enable ease of use and make a user interface more engaging.⁶⁴ The jury found that Samsung infringed Apple's utility patents covering iPhone's "On-screen Navigation,"⁶⁵ "Bounce-Back Effect,"⁶⁶ and "Tap To Zoom"⁶⁷ features, and design patents covering iPhone features including the "home button, rounded corners and tapered edges,"⁶⁸ and "On-Screen Icons."⁶⁹ This case illustrates the strategic means that Apple has undertaken in order to protect the "look, feel and function" of iPhone devices.⁷⁰



*U.S. Patent No. D618,677 S*⁷¹

The strategy to get both a utility and design patent is emblematic of the dichotomy within the patent system.⁷² Such a strategy—covering the entire UX through both types of patents—is unlikely to prevail and is still largely unpredictable. UX

62. *Apple Inc. v. Samsung Elecs. Co., Ltd.*, 786 F.3d 983, 996 (Fed. Cir. 2015), *rev'd*, 137 U.S. 429 (2016).

63. *Id.*

64. Shara Tibken, *Apple Engineer: We Wanted to Make a Phone for 'normal People,'* CNET (Apr. 4, 2014), <https://perma.cc/G4UB-PPBN>.

65. U.S. Patent No. 7,844,915 (issued Nov. 30, 2010).

66. The bounce-back patent was ultimately negated in U.S. Patent No. 7,469,381 (issued December 23, 2008). See Jaime Condliffe, *The US Patent Office Has Invalidated Apple's Bounce Scroll Patent*, GIZMODO (Oct. 23, 2012), <https://perma.cc/269B-MX5V>.

67. U.S. Patent No. 7,864,163 (issued Jan. 4, 2011).

68. U.S. Patent No. D593,087 (issued May 26, 2009).

69. U.S. Patent No. D604,305 S (issued Nov. 17, 2009). See Ed Burnett, *The verdict is in: Samsung vs. Apple*, ZDNET (Aug. 25, 2012), <https://perma.cc/Z97F-83BU>.

70. *Apple, Inc. v. Samsung Elecs. Co. Ltd.*, 678 F.3d 1314 (Fed. Cir. 2012).

71. *Id.* at 1317.

72. It is important to note that in *Apple Inc. v. Samsung*, there was also a trade dress claim discussed later; see *Apple Comput. Inc. v. Samsung Elecs. Co. Ltd.*, 786 F.3d 983, 989-90 (Fed. Cir. 2015).

encompasses something more than design and utility alone. In *Apple*,⁷³ the Supreme Court limited its review to certain patents, including a black rectangle with rounded corners,⁷⁴ with bezel on surrounding rim,⁷⁵ and a colorful grid of sixteen icons.⁷⁶ These particular patents arguably relate to the broadened realm of utility and design; however, the case before the Supreme Court was limited to a damages inquiry.

The products that potentially infringe design and utility patents are often complex ones incorporating numerous technologies and designs. “Modern devices may potentially infringe many thousands of patents, held by numerous different owners.”⁷⁷ Thus, the profits on a complex product with some design and utility may derive from a myriad of technological and user design innovations, any combination of which might drive consumers’ purchasing decisions. This problem has broad implications, directly affecting large, midsize, and smaller companies alike.

Another issue for UX is preventing UX from continually being included as patents by patent trolls. These “trolls” are companies or individuals who buy legal rights to a design or product with a view to preventing others from operating. They make money by requesting license fees to allow other companies to use the invention, or by suing other companies or agencies for compensation. While the patent troll debate is comprehensive, UX is dynamic and its evolutionary properties may be stifled for an inequitable amount of years. Trolls may broaden design and utility claims thereby further slowing down UX innovation.⁷⁸ For example, Apple lost a \$625 million dollar verdict in Texas federal court to VirnetX, a patent troll company.⁷⁹ Although this ruling was later reversed, these trials are indicative of the uncertainty that exists in the UX arena. One ruling related to a virtual private network (“VPN”) that worked as a medium to help users interact with their iPhone devices.⁸⁰ Another related to several design and utility patents involving Apple’s FaceTime feature that enables users to interact with the interface through video call. Indeed, many companies have also settled lawsuits in this opaque area of IP protection. Microsoft paid \$23 million dollars to VirnetX alone in a settlement over its Skype video technology.⁸¹

This lack of guidance for companies in the area of patents where design and utility merge highlights the systemic limitations of patent law for UX. It is unsettling that the USPTO projects the number of design and utility patent filings for UX will

73. *Apple Inc. v. Samsung Elecs. Co., Ltd.*, 137 U.S. 429 (2016).

74. U.S. Patent No. D618,677 S (issued Jun. 29, 2010).

75. U.S. Patent No. D593,087 S, *supra* note 68.

76. U.S. Patent No. D604,305 S, *supra* note 69.

77. See, e.g., William F. Lee & A. Douglas Melamed, *Breaking the Vicious Cycle of Patent Damages*, 101 CORNELL L. REV. 385, 407 (2016).

78. Jenny Cham, *Exploring Issues Around Intellectual Property in User Experience . . . Are We Burying Our Heads in the Sand?*, in BRINGING USABILITY TO A COMPLEX DOMAIN... (Jan. 23, 2015), <https://perma.cc/F8CV-DWTZ>.

79. Jeff J. Roberts, *Apple Hit with Huge \$625M Verdict Over FaceTime, VPN Patents*, FORTUNE (Feb. 3, 2016), <https://perma.cc/K7VW-N33X>.

80. The verdict form in the Eastern District of Texas court highlights the damage amounts allocated to VirnetX, a patent holdings company. For the complete VirnetX, Inc. v. Apple, Inc. verdict form, see Verdict Form, *VirnetX Inc. v. Apple Inc.*, No. 6:12-cv-855-RWS (E.D. Tex. 2016), <https://perma.cc/WF6A-WUK2>.

81. *Id.* at 1-5.

continue to rapidly grow,⁸² despite their flagrant systemic limitations and inequitable time of protection.⁸³ While recent developments in *Apple* may potentially lessen the damages for patent troll cases, the underlying dichotomy of design and utility still persists.⁸⁴

B. COPYRIGHT IS NOT CUT OUT FOR UX PROTECTION

Until recently, copyright law was the principal mode of UX protection. The expression of UX as a necessary tool for copyright protection has appeared in scholarly discussion: “[T]he user interface, which is often the most important feature of a computer program, requires strong copyright protection to encourage further innovation and advancement.”⁸⁵

Protecting UX through copyright, however, has three primary drawbacks. First, ideas are not protected by copyright, and UX is often considered to be an expression of ideas. Second, methods are not protected by copyright, and UX is often considered to be a method of operation. And third, copyright only protects a static expression, and UX changes over time.

A copyright can cover an original work of authorship including software, mask works, articles, literature, blog postings, art, music, videos, photographs, and other artistic works.⁸⁶ Yet only the particular expression of the idea can be copyrighted and protected.⁸⁷ Copyright law does not protect facts and ideas within a work.⁸⁸ The Ninth Circuit has explained that “[t]he real task in a copyright infringement action . . . is to determine whether there has been copying of the expression of an idea rather than just the idea itself. . . . Only . . . expression may be protected and only it may be infringed.”⁸⁹

In order to qualify for copyright protection, a work must be “fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced or otherwise communicated, either directly or with the aid of a machine or device.”⁹⁰ UX interfaces, however, connect users with the ideas and

82. Charles Mauro, *The Past Present & Future of User Interface Design Patents*, DESIGNING FOR HUMANS (Apr. 29, 2013), <https://perma.cc/2X29-THYQ>.

83. Michael J. Schallop, *Protecting User Interfaces: Not As Easy As 1-2-3, 4, 5*, EMORY L.J. 1533, 1539 (1996) (arguing against the inequitable time allotment, specifically too long of a time-frame, for patents and even specific narrow elements of copyright laws that protect the user-interface).

84. The Supreme Court remanded to the Federal Circuit to determine whether the relevant design patents’ article of manufacture was the whole smartphone or particular components. *Samsung Elec. Co., Ltd. v. Apple Inc.*, 137 S. Ct. 429, 436 (2016).

85. *Lotus Dev. Corp. v. Paperback Software*, 740 F. Supp. 37, 75 (D. Mass. 1990) (citing CLAPES, SOFTWARE, COPYRIGHT & COMPETITION: THE “LOOK AND FEEL” OF THE LAW 202-03 (1989)).

86. 17 U.S.C. §§ 101 et seq. The copyright statute lists the various classes of artistic works for which copyright can be secured on a federal statutory basis.

87. 17 U.S.C. § 102(b).

88. *SOFA Entm’t, Inc. v. Dodger Prods., Inc.*, 709 F.3d 1273, 1279 (9th Cir. 2013).

89. *Sid & Marty Krofft Television v. McDonald’s Corp.*, 562 F.2d 1157, 1163 (9th Cir. 1977) (implying that idea-expression dichotomy is issue of fact for jury); *see also Unicolors, Inc. v. Urban Outfitters, Inc.*, 853 F.3d 980, 985 (9th Cir. 2017); *Golan v. Holder*, 132 S. Ct. 873, 890 (2012) (explaining idea-expression dichotomy of copyright law).

90. 17 U.S.C. § 102(a).

expressions of its program. Moreover, the UX interface itself communicates ideas and expressions which are not copyrightable. In *ILOG v. Bell Logic*, the court determined that the addition of certain elements to a computer program was not expression protected by copyright.⁹¹ The court considered the individual elements to be ideas, and in the aggregate, methods of operation. Any expressions of ideas utilized in developing the software were embodied in the operation of the program and were therefore unable to be protected.⁹²

Moreover, the scope of copyright law's freedom of expression has lost its alignment with UX's unique design and functionality hybrid. Copyright case law, including *Apple Computer v. Microsoft*, demonstrates the difficulties of protecting the "look and feel" and UX's graphical interface, which is interpreted by some courts as mere ideas or fully functional components that are not afforded copyrightable protections.⁹³ In *Apple Computer*, the Ninth Circuit Court of Appeals found that there is no copyright protection for: (1) the use of windows to display multiple images on a computer screen, (2) the iconic representation of familiar office equipment, (3) the manipulation of icons to control the operation of a computer, (4) the use of menus to store information, or (5) the opening and closing of objects as a means of receiving, transferring, and storing information. Therefore, the court held that the copying of those ideas embodied in the GUI did not infringe Apple's copyright.⁹⁴ These "ideas" are critical for UX development and require protection.

Here, the court's narrow view epitomizes the misalignment of judicial interpretation of copyright law and the scope of protections required for UX application.⁹⁵ Further, copyright law is explicitly narrowed to "original authorship" appearing on a website.⁹⁶ Copyright law may help protect specific aspects of UX, such as writings, artwork, photographs, and other forms of authorship, as long as they meet the requirement of originality. Nevertheless, the dynamic "look and feel" of the interface remains unprotected.

Copyright law also dictates that "[i]n no case does copyright protection for an original work of authorship extend to any . . . procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work."⁹⁷ UX, by definition, adheres to specific methods of operation to engage with end-users, such as Mental Models, Fitt's Law, and the Hick-Hyman Law. This critical issue arose in UX protections as early as 1995 in *Lotus v. Borland*, where the First Circuit Court of Appeals held that menu command hierarchy for a computer spreadsheet program

91. *ILOG, Inc. v. Bell Logic, LLC.*, 181 F. Supp.2d 3 (D. Mass. 2002).

92. This decision is consistent with *Lotus v. Borland* and with *Apple v. Microsoft*. Michael Risch, *Functionality and Graphical User Interface Design Patents*, 17 STAN. TECH. L. REV. 53, 76 (2014).

93. *Apple Comput. Inc. v. Microsoft Corp.*, 35 F.3d 1435 (9th Cir. 1994).

94. *Id.* at 1445.

95. See, e.g., S. Priya Bharathi, *There Is More than One Way to Skin a Copycat: The Emergence of Trade Dress to Combat Design Piracy of Fashion Works*, 27 TEX. TECH L. REV. 1667, 1691-94 (1996) (arguing trade dress is superior to copyright for protecting works of fashion).

96. See generally, U.S. Copyright Office, Library of Congress, Copyright Registration of Websites and Website Content, Circular 66 (July, 2012).

97. 17 U.S.C. § 102(b).

(“Lotus 1–2–3”) is a method unprotected by copyright law.⁹⁸ The court reasoned that this method is not copyrightable because it provides the means for users to control and operate the system, like any other “method of operation,” defined as “the means by which a person operates something, whether it be a car, a food processor, or a computer.”⁹⁹ UX focuses on the usability of operating an interface, or substantially similar devices, which is at direct odds with the court’s defined “method of operation.” UX is therefore unable to be wholly copyrighted.

Finally, for works to be copyrighted, they must be “fixed” in a tangible medium of expression.¹⁰⁰ While the tangible medium is not required to be the same medium of expression that the work was created in, the medium must be “sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.”¹⁰¹ UX, however, changes over time. It is constantly being updated and adjusted to accommodate the user’s experience. It is not the type of work that remains stagnant for longer than a transitory duration, such as a song or book. The author has only the right to first publication of his or her work; after publication, the work falls into the public domain.¹⁰² Thus, copyright is systemically limited to protect UX because its stagnant protections are ill-equipped to handle UX’s transitory nature.

C. TRADEMARK LAW

Trademark law seems to be more effective than copyright law in protecting the IP of UX, at least at first blush. It is trade dress, however, a subset of trademark law, that seems to have a stronger chance of protecting the UX. While trade dress and trademark share certain elements, they differ in important ways. The most prominent distinction between trade dress and trademark, for purposes of this discussion, is that trade dress delivers a broader scope of protections that exceeds traditional trademark, consisting of the overall impression or total image of a product, and may include size, shape, color, color combinations, texture or graphics. Trademark law, by contrast, simply looks to a symbol characterized as a trademark.¹⁰³ Trade dress reflects the totality and combination of elements through their packaging or presentation.

98. *Lotus Dev. Corp. v. Borland Int’l*, 49 F.3d 807 (1st Cir.1995), *aff’d* by an equally divided court, 516 U.S. 233 (1996).

99. *Id.*

100. 17 U.S.C. § 101.

101. *Id.*

102. *Warner Bros. Pictures v. Columbia Broadcasting System*, 102 F. Supp. 141, 147-48 (S.D. Cal. 1951), *aff’d in part, rev’d in part on other grounds*, 216 F.2d 945 (9th Cir. 1954).

103. *Int’l Jensen, Inc. v. Metrosound U.S.A., Inc.*, 4 F.3d 819, 823 (9th Cir. 1993).

III. TRADE DRESS REFORM

This Article will first address why trade dress is the best mode of IP protection for UX. Then, it will point to a broader interpretation of trade dress law to overcome current legal encumbrances.¹⁰⁴

“The ‘trade dress’ of a product is essentially its total image and overall appearance.”¹⁰⁵ “It involves the total image of a product and may include features such as size, shape, color or color combinations, texture, graphics, or even particular sales techniques.”¹⁰⁶ Trade dress is the best option to protect UX for several reasons: (1) it protects both functional and non-functional elements; (2) it accommodates claims that are under constant modification; and (3) there is less concern for non-proportional damages.¹⁰⁷ However, using trade dress to protect UX does create some foreseeable issues, not the least of which is the potential for flooded courtrooms. It might be easy for competitors to still find a way around trade dress protections, and trade dress protections for UX might also still result in perpetual monopolies.

A. THE PROPOSED UX EXCEPTION DOCTRINE

There are two primary legal hurdles facing a plan to protect UX under trade dress: the doctrine of “secondary meaning” and the “functionality doctrine.” As this Article explains, both hurdles are technically surmountable. Yet, due to inconsistent guidance by the Supreme Court and federal circuit courts, a distinct exception for UX ought to be carved out. A *sua sponte* “UX Exception” could take the form of either: (1) an amendment to the Lanham Act that defines UX as protectable under trade dress without a showing of secondary meaning, or regardless of a finding of Utilitarian functionality, or (2) a judicial practice of “UX Exceptionalism” that bends the secondary meaning and functionality doctrines to the particularities of the UX industry.

The Lanham Act has been amended several times through legislation, including by the Trademark Counterfeiting Act of 1984 and the Anticybersquatting Consumer Protection Act. Further, Congress has previously granted *sui generis* IP protection to a unique industry; the Semiconductor Chip Protection Act of 1984 provided copyright protection upon registration for the layouts of integrated circuits of

104. It is important to note that advocating for trade dress over other IP disciplines, such as copyright law, as a means to protect the user interface of computers is not necessarily a novel idea. *See, e.g.,* Kellner, Comment, *Trade Dress Protection for Computer User Interface “Look and Feel”*, 61 U. CHI. L. REV. 1011 (1994). One primary distinction, however, is the introduction of a novel *sua sponte* UX Exception to overcome contemporary legal hurdles in implementing UX protections within trade dress.

105. Trade dress has maintained its definition consistent with the definition provided by the Supreme Court in *Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 764 n.1 (1992), a landmark trade dress case involving a festive eating atmosphere having interior dining and patio areas decorated with artifacts, bright colors, paintings and murals.

106. *John H. Harland Co. v. Clarke Checks, Inc.*, 711 F.2d 966, 980 (11th Cir. 1983).

107. *See Rose Art Indus., Inc. v. Raymond Geddes & Co.*, 31 F.Supp.2d 367, 373 (D.N.J. 1998) (“[A] party may have trade dress rights even though there are slight variations in its package design so long as the change does not alter the distinctive characteristics and the trade dress conveys a single and continuing commercial expression.”).

semiconductors.¹⁰⁸ UX, like semiconductors, has become its own industry and an integral part of our daily lives, through integration on and in computers, mobile devices, and virtual screens.

B. TWO LEGAL HURDLES

1. The Doctrine of Secondary Meaning

The first legal hurdle for protecting UX under trade dress is the doctrine of secondary meaning. Trademarks and trade dress are often classified as falling on a spectrum of increasing distinctiveness:

Marks are often classified in categories of generally increasing distinctiveness; following the classic formulation set out by Judge Friendly, they may be (1) generic; (2) descriptive; (3) suggestive; (4) arbitrary; or (5) fanciful. . . . The latter three categories of marks, because their intrinsic nature serves to identify a particular source of a product, are deemed inherently distinctive and are entitled to protection. In contrast, generic marks—those that “refe[r] to the genus of which the particular product is a species,” . . . are not registrable as trademarks. . . . Marks which are merely descriptive of a product are not inherently distinctive. When used to describe a product, they do not inherently identify a particular source, and hence cannot be protected. However, descriptive marks may acquire the distinctiveness which will allow them to be protected under the Act.¹⁰⁹

Courts apply the doctrine of secondary meaning to adjudicate whether a trademark or trade dress without *inherent* distinctiveness has *acquired* distinctiveness.¹¹⁰ To determine trade dress protection under the secondary meaning doctrine, courts ask whether, in the minds of the public, “the primary significance of [the] product feature or term is to identify the source of the product rather than the product itself.”¹¹¹ While proof of secondary meaning is not always required, it may be established in a number of ways. Factors considered include: the length or exclusivity of use of a mark, the size or prominence of a plaintiff’s enterprise, the existence of substantial advertising by the plaintiff, the product’s established place in the market, and proof of intentional copying.¹¹²

The circuit courts are split as to whether a product feature must always acquire secondary meaning to earn trade dress protection. The Second Circuit holds that inherently distinctive trade dress needs to acquire secondary meaning to earn

108. See Vertinsky, *supra* note 29.

109. Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 768-69 (1992).

110. *Id.*, at 769.

111. Wal-Mart Stores, Inc. v. Samara Bros., Inc., 529 U.S. 205, 211 (2000); Inwood Labs. v. Ives Labs., 456 U.S. 844, 851 n.11 (1982).

112. See I.P. Lund Trading ApS v. Kohler Co., 163 F.3d 27, 42 (1st Cir. 1998). See also BigStar Entm’t, Inc. v. Next Big Star, Inc., 105 F. Supp. 2d 185, 202 (S.D.N.Y. 2000) (“Six factors have been identified to help establish secondary meaning. They are (a) advertising expenditures; (b) consumer studies linking the mark to a source; (c) unsolicited media coverage of the product; (d) sales success; (e) attempts to plagiarize the mark; and (f) the length and exclusivity of the mark’s use.”); 22 AM. JUR. 3D PROOF OF FACTS § 691 (1993).

protection.¹¹³ In contrast, the Fifth Circuit, along with the Eleventh Circuit, follow the notion that inherently distinctive trade dress is protectable under § 43 of the Lanham Act without a showing of acquired secondary meaning.¹¹⁴

In *Two Pesos v. Taco Cabana*, the Supreme Court established that a restaurant's total image (including the shape and general appearance of the restaurant exterior, the identifying sign, the interior floor pan and décor, the menu, and the servers' uniforms) can be considered inherently distinctive trade dress, without the need to acquire secondary meaning.¹¹⁵ While the holding in *Two Pesos* admittedly pertains to the physical world, recent technological advances make it easy to compare restaurants with a virtual user experience. Consistent with the Supreme Court in *Two Pesos*, UX that meets the threshold definition supplied in this Article could be considered inherently distinctive trade dress.

However, a secondary meaning requirement for even inherently distinctive trade dress, as the Second Circuit requires, would prove burdensome for UX protection. Secondary meaning inquiries primarily consider "whether the party . . . has used the trade dress exclusively," "[the] sales success of the trade dress," and the "length and manner of [the trade dress's] use" (that is, the "good will" of the trade dress).¹¹⁶ Because UX interfaces can be quickly copied from a single screen grab or line of code, it might be challenging for a company to develop good will before infringement occurs. An inquiry into the length of use is simply at odds with the rapid pace of UX innovation. Additionally, companies like Twitter, Snapchat, Instagram, and Tinder that focus on user acquisition rather than sheer revenue growth might encounter difficulty demonstrating the sales success of their UX under a traditional economic revenue model.

Fortunately for purposes of this proposal, the Supreme Court has declared Second Circuit holdings requiring secondary meaning to be in considerable tension with the Lanham Act.¹¹⁷ A small company with inherently distinctive trade dress is at risk of becoming overwhelmed by a competitor before that smaller company can prove secondary meaning. "Adding [a] secondary meaning requirement could have anticompetitive effects, creating particular burdens on the startup of small companies."¹¹⁸ Because the Lanham Act's primary purpose is to encourage competition, the Fifth Circuit's view not to require secondary meaning when a trade dress is inherently distinctive aligns closer with the purpose of trade dress.¹¹⁹

Even if courts required the acquisition of secondary meaning for all trade dress, courts could accommodate the secondary meaning doctrine to the particularities of the UX industry. Given the rapid pace of technological advance within the UX industry, secondary meaning for UX ought to be established at a quicker rate. Useful

113. See *PaperCutter, Inc. v. Fay's Drug Co., Inc.*, 900 F.2d 558, 565 (2d Cir. 1990).

114. See, e.g., *Sno-Wizard Mfg., Inc. v. Eisemann Products Co.*, 791 F.2d 423 (5th Cir. 1986); *John H. Harland Co. v. Clarke Checks, Inc.*, 711 F.2d 966, 974 (11th Cir. 1983).

115. *Two Pesos*, 505 U.S. at 771.

116. *Adidas Am., Inc. v. Skechers USA, Inc.*, 149 F. Supp. 3d 1222, 1235 (D. Or. 2016).

117. *Two Pesos*, 505 U.S. at 763.

118. *Id.*

119. *Id.* See also *Sno-Wizard Mfg., Inc. v. Eisemann Products Co.*, 791 F.2d 423 (5th Cir. 1986).

inquiries could include: customer surveys to determine if actual purchasers associate the dress with the source,¹²⁰ “attempts by others to imitate,”¹²¹ and “[e]vidence of extensive unsolicited media coverage.”¹²² Surveys and other considerations of user procurement and retention prove more practical inquiries for UX than do calculations of revenue growth under a traditional economic revenue model. Further, demonstration of competitor imitation could be quickly established by a side-by-side comparison of the UXs. Finally, there are numerous media outlets that report extensively on UX design and technology. While these questions may appear primarily factual, *overwhelming* evidence of independent social media and other media coverage could be used to certify a summary judgment.

It is therefore imperative to remain cognizant that even if secondary meaning is required for UX, a doctrine of “UX Exceptionalism” could ameliorate the burden of the secondary meaning inquiry for the UX industry. Appropriately tailoring the scope of a secondary meaning requirement would invariably help to protect some UX under trade dress, if a showing of secondary meaning is required at all. Once secondary meaning is obtained, the UX may still change slightly “so long as the change does not alter the distinctive characteristics and the trade dress conveys a single and continuing commercial expression.”¹²³

2. The Functionality Doctrine

A second hurdle to trade dress protection of UX is the “functionality doctrine.” Matters seeking protection under trade dress must not be “functional.”¹²⁴ Matters may be “functional” if they afford benefits in the manufacturing, marketing, or use of the goods or services with which the design is associated, apart from any benefits attributable to the design’s significance as an indication of source.¹²⁵ However, even if the elements of a claimed trade dress “[a]re all separately functional . . . [the] arrangement of these features can constitute more than the sum of its non-protectable parts.”¹²⁶ Indeed, “the critical functionality inquiry is not whether each individual

120. *Levi Strauss & Co. v. Blue Bell, Inc.*, 778 F.2d 1352, 1358 (9th Cir. 1985) (“An expert survey of purchasers *can* provide the most persuasive evidence on secondary meaning.”) (emphasis added).

121. *Rose Art Indus. v. Raymond Geddes & Co.*, 31 F. Supp. 2d 367, 373 (D. N.J. 1998).

122. *Adidas-Salomon AG v. Target Corp.*, 228 F. Supp. 2d 1192, 1207 (D. Or. 2002).

123. *Lisa Frank, Inc. v. Impact Int’l, Inc.*, 799 F. Supp. 980, 993 (D. Ariz. 1992) (citing *Harlequin Enters. v. Gulf & Western Corp.*, 644 F.2d 946, 950 (2d Cir. 1981)).

124. *Lanham Trade-Mark Act*, § 43(a), 15 U.S.C. § 1125(a)(3).

125. In some judicial circuits the courts require the plaintiff to prove that the features of their trade dress are not functional (First, Third, Ninth and D.C. Circuits). In other circuits, functionality is a defense which the accused infringer must prove (Second, Seventh and Tenth Circuits). See the circuit split of cases in Cynthia Clarke Weber, *Trade Dress Basics*, <http://www.sughrue.com/files/Publication/a5e682a6-09e8-4fb4-8d52-f3ba796ee215/Presentation/PublicationAttachment/28d42aa1-f2c4-4516-9a6c-f84323a0b1a7/tradedress.htm> (last visited Nov. 11, 2017).

126. *Abercrombie & Fitch Stores, Inc. v. Am. Eagle Outfitters, Inc.*, 280 F.3d 619, 644 (6th Cir. 2002). See also *Coach, Inc. v. We Care Trading Co.*, 99 CIV. 11672 (DLC), 2001 U.S. Dist. LEXIS 9879, at *27–*28 (S.D.N.Y. July 18, 2001) (“[A] collection of functional features may nonetheless be protectable trade dress.”); 55 AM. JUR. PROOF OF FACTS 3d 383 § 13 (2000) (stating that trade dress that is not completely functional may be protected against misappropriation by others).

component of the trade dress is functional, but rather whether the trade dress *as a whole* is functional.”¹²⁷

Historically, courts have followed two tests under the “functionality doctrine”: Utilitarian functionality and Aesthetic functionality. Under Utilitarian functionality, a matter's feature is essentially considered to be “functional” and therefore not protected under trade dress law if: (1) the feature is essentially dictated by the functions to be performed by the matter, and (2) the use or purpose of the feature affect its cost or quality.¹²⁸ While the courts often differ in their interpretations of Aesthetic functionality, the primary inquiry is whether exclusive use of the feature would put competitors at a significant non-reputational disadvantage.¹²⁹ More recently, as this Article will demonstrate, Supreme Court and federal circuit holdings have shifted towards a unity of the Utilitarian and Aesthetic tests, perhaps with greater emphasis on the Aesthetic test.

For UX, the Utilitarian functionality test would be routinely difficult to satisfy. Two Utilitarian factors look into whether the feature is “essential to the use or purpose of the product” and “whether a feature affects the cost or quality of the product.” When implemented correctly under this Article’s definition, UX arguably becomes essential to the use of the product.

The Aesthetic functionality test, consistent with the functionality doctrine as a whole, is set to prevent the inhibition of legitimate competition.¹³⁰ Under Aesthetic functionality, a “competitive necessity” test states that, “distinctive and arbitrary arrangements of predominantly ornamental features that *do not* hinder potential competitors from entering the same market with differently dressed versions of the product are non-functional and hence eligible for trade dress protection.”¹³¹ For purposes of inclusivity, the Sixth Circuit considers two “competitive necessity” factors: “comparable alternatives” and “effective competition” tests.¹³²

The “comparable alternatives” test “asks whether trade-dress protection of certain features would nevertheless leave a variety of comparable alternative features that competitors may use to compete in the market [I]f such alternatives do exist, then the feature is not functional.”¹³³ Under the “comparable alternatives” test, UX will likely prevail. This is fundamental, because alternatives are the ultimate indicator of effective competition. Indeed, some courts, like the Tenth Circuit,

127. *Tools USA & Equip. Co. v. Champ Frame Straightening Equip., Inc.*, 87 F.3d 654, 658 (4th Cir. 1996). *See also* *Sherwin-Williams Co. v. Wooster Brush Co.*, No. 5:12CV03052, 2015 WL 1471617, at *6 (N.D. Ohio Mar. 31, 2015).

128. *Inwood Laboratories, Inc. v. Ives Laboratories, Inc.*, 456 U.S. 844, 850–51 (1982).

129. *See, e.g., Ashley Furniture Industries, Inc. v. SanGiacomo N.A. Ltd.*, 187 F.3d 363, 375 (4th Cir. 1999).

130. “[C]opying preserves competition, which keeps downward pressure on prices and encourages innovation.” *Abercrombie & Fitch Stores, Inc. v. Am. Eagle Outfitters, Inc.*, 280 F.3d 619, 640 (6th Cir. 2002).

131. *Id.* (emphasis in original). *See also* *Brunswick Corp. v. Spinit Reel Co.*, 832 F.2d 513, 519 (10th Cir. 1987); *OraLabs, Inc. v. Kind Group LLC*, 2015 WL 4538444, at *13 (D. Colo. July 28, 2015).

132. Also known as the “competition theory of functionality.”

133. *Abercrombie & Fitch*, 280 F.3d at 642. *See also* *Sherwin-Williams Co. v. JP Int’l Hardware, Inc.*, 988 F. Supp. 2d 815, 819 (N.D. Ohio 2013); *Deere & Co. v. Fimco Inc.*, No. 5:15-CV-105-TBR, 2015 WL 6043960, at *2 (W.D. Ky. Oct. 14, 2015).

follow the alternatives test exclusively.¹³⁴ As the courts have acknowledged, aesthetically based configurations “are not in short supply.”¹³⁵ Therefore, a competitor can nearly always extend alternative designs that are “ornamental, fanciful, [or] decorative.”¹³⁶ Thus, “appropriating [an alternative design] to serve as an identifying mark does not take away from any competitor something that he needs in order to make a competing brand,”¹³⁷ especially with the recognition of colors or color combinations,¹³⁸ sizes, shapes, sounds,¹³⁹ textures, and graphics,¹⁴⁰ as protectable trade dress.

Under the “effective competition” test, the finding is instead:

[W]hether trade dress protection for a product’s feature would hinder the ability of another manufacturer to compete effectively in the market for the product. If such hindrance is probable, then the feature is functional and unsuitable for protection. If the feature is not a likely impediment to market competition, then the feature is nonfunctional and may receive trademark protection.¹⁴¹

Under the “effective competition” test, UX could be protected. Consistent with the Supreme Court’s guidance,¹⁴² courts have permitted competitors to use trademarks and trade dress with important functional components.¹⁴³ Therefore, protection would not hinder competition through monopoly.

Moreover, even if competitors are unable to utilize an individual functional element, they may create competing arrangements. Because UX includes both design and functional components, it uniquely offers a “multitude of alternatives.”¹⁴⁴ For a clearer picture, consider the ridesharing apps, Uber and Lyft.

134. The Tenth Circuit has held that “the determination of [whether a design is] functional in this setting . . . should . . . rest on whether alternative appealing designs or presentations of the product can be developed.” *Brunswick Corp. v. Spinit Reel Co.*, 832 F.2d 513, 519 (10th Cir. 1987); *see also OraLabs, Inc. v. Kind Group LLC*, No. 13-cv-00170-PAB-KLM, 2015 WL 4538444, at *13 (D. Colo. July 28, 2015).

135. *W.T. Rogers Co., Inc. v. Keene*, 778 F.2d 334, 339 (7th Cir.1985).

136. *Id.*

137. *Id.*

138. *See, e.g., CIBA-Geigy Corp. v. Bolar Pharm. Co.*, 747 F.2d 844 (3d Cir. 1984); *SK&F, Co. v. Premo Pharm. Labs., Inc.*, 625 F.2d 1055 (3d Cir. 1980).

139. *See, e.g., NBC CHIME*, Registration No. 916,522.

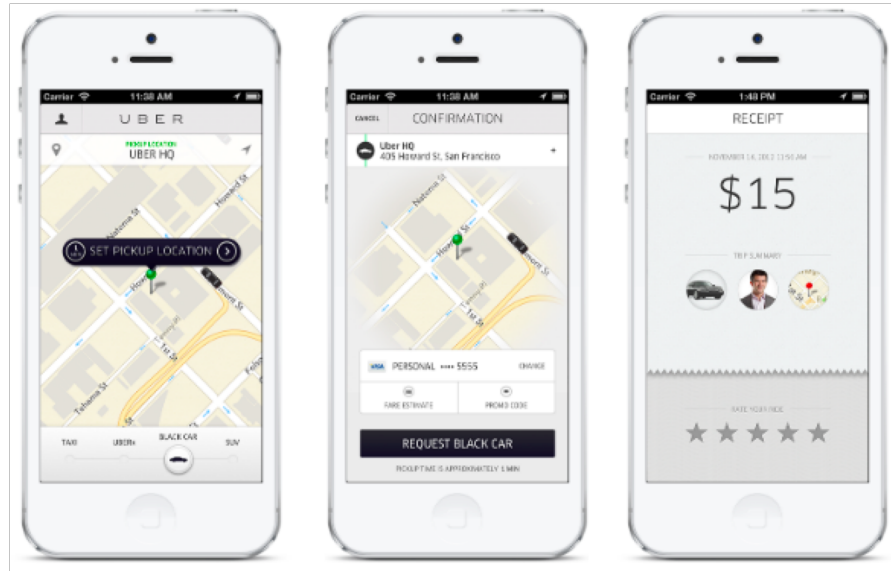
140. *See Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 775 (1992).

141. *Maker’s Mark Distillery, Inc. v. Diageo N. Am.*, 679 F.3d 410 (6th Cir. 2012) (upholding trade dress protection for wax seal on bourbon bottles).

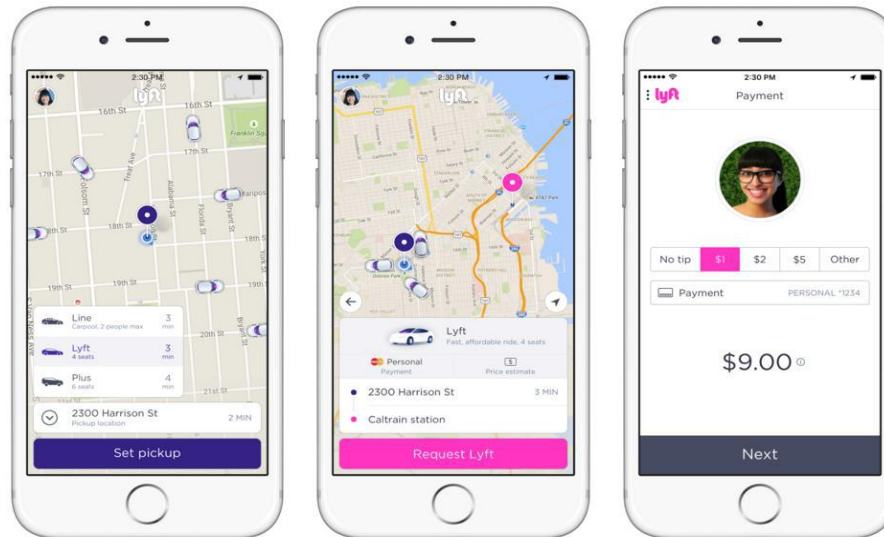
142. There is some interesting predictive dicta in *TrafFix* that implies the necessity of enabling competitors to copy, thereby theoretically narrowing the overall scope of permissible protections. *TrafFix Devices v. Mktg. Displays*, 532 U.S. 23, 29 (2001) (“Trade dress protection must subsist with the recognition that in many instances there is no prohibition against copying goods and products.”).

143. *See, e.g., Int’l Order of Job’s Daughters v. Lindeburg & Co.*, 633 F.2d 912 (9th Cir. 1980); *Plasticolor Molded Prods. v. Ford Motor Co.*, 713 F. Supp. 1329 (C.D. Cal. 1989), *vacated* 767 F. Supp. 1036 (C.D. Cal. 1991); *Univ. of Pittsburgh v. Champion Prods., Inc.*, 566 F. Supp. 711 (W.D. Pa. 1983).

144. *Clicks Billiards, Inc. v. Sixshooters, Inc.*, 251 F.3d 1252, 1257 (9th Cir. 2001) (“Trade dress refers generally to the total image, design, and appearance of a product and may include features such as size, shape, color, color combinations, texture or graphics.”).



*Uber UX*¹⁴⁵



*Lyft UX*¹⁴⁶

145. Alan Wong, *From Simple to Invisible Part 1: the Evolution of Friction-Free Apps*, BRAINTREE (July 6, 2015), <https://perma.cc/78YQ-C5UY>.

146. Carle Lamiel, *Fast Five: Transport Apps You Should Try Today*, YUGATECH (June 27, 2016), <https://perma.cc/D5CW-P65D>.

Both mobile applications, while characteristically similar, hold distinct colors, distinctive marks, and arrangements. The issue is ultimately whether these two applications are considered inherently distinctive.

For the protection of UX as trade dress, both Aesthetic tests are likely placated. First, there is an abundance of alternative designs. Second, competition is probably not hindered because of the ability for competitors to copy essential functional components.

It is imperative to note that even if the trade dress claim is deemed “functional” by the Utilitarian test, the Aesthetic functionality test may still ultimately prevail. In fact, the Federal Circuit,¹⁴⁷ Sixth Circuit,¹⁴⁸ and others¹⁴⁹ expressly do not adopt the Utilitarian functionality test, solely following the Aesthetic test.¹⁵⁰ In *Louboutin v. Yves Saint Laurent*, the most recent precedent for Utilitarian functionality, the Second Circuit incorporated two Utilitarian factors and one Aesthetic factor: (1) whether a feature is essential to the use or purpose of the product; (2) whether a feature affects the cost or quality of the product; and (3) whether granting of trademark for the exclusive use of the feature would put competitors at a significant non-reputation related disadvantage.¹⁵¹ Here, the Second Circuit recognized the impotence of Utilitarian functionality without Aesthetic functionality. Further, the Supreme Court blurred the Utilitarian and Aesthetic functionality lines in *Qualitex v. Jacobson Products*. Here, the Court defined a functional feature as one which “is essential to the use or purpose of the article or [that] affects the cost or quality of the article”—that is, if exclusive use of the feature would put competitors at a significant non-reputation-related disadvantage.¹⁵² The latter notion aligns with the practical importance of Aesthetic functionality and not just Utilitarian functionality.

There are further indications that UX could technically be incorporated with the current trade dress framework. In the recent case *SG Services v. God’s Girls*, the court addressed interface functionality of a Web site’s “look and feel” by considering a claim for infringement of “certain features on the website,” including “the color

147. *Valu Engineering v. Rexnord Corp.*, 278 F.3d 1268, 1276 (Fed. Cir. 2002) (forgoing *TrafFix* and focusing its analysis on whether permitting a product feature to be trademarked would impair competitors).

148. The Sixth Circuit has expressly not adopted the concept of aesthetic functionality and has questioned its validity. *See The Sherwin-Williams Co. v. JP Int’l Hardware, Inc.*, 988 F. Supp. 2d 815, 819 (N.D. Ohio 2013) (citing *Maker’s Mark Distillery, Inc. v. Diageo N. Am.*, 679 F.3d 410, 417-18 (6th Cir. 2012)) (“[W]e have not yet plainly stated which test we would apply under aesthetic functionality doctrine . . . or that we have even adopted aesthetic functionality doctrine at all.”).

149. The courts have struggled with the correct application of the myriad of trade dress inquiries through the district court level, as evidenced by the disparity of opinion. *See* Mark McKenna, *(Dys)functionality*, SCHOLARLY WORKS, 823, 825 (2012), http://scholarship.law.nd.edu/cgi/viewcontent.cgi?article=1615&context=law_faculty_scholarship (“[T]he fractured state of modern doctrine reflects deep and persistent disagreement about the level at which trademark law’s relationship to competition should be worked out”).

150. *See* *Dippin’ Dots, Inc. v. Frosty Bites Distribution, LLC*, 369 F.3d 1197, 1203 (11th Cir. 2004).

151. *Christian Louboutin S.A. v. Yves Saint Laurent Am. Holding, Inc.*, 696 F.3d 206 (2d Cir. 2012).

152. *Qualitex Co. v. Jacobson Products Co., Inc.* 514 U.S. 159, 165 (1995) (citing *Inwood Laboratories, Inc. v. Ives Laboratories, Inc.*, 456 U.S. 844, 850-51 (1982)).

pink” and by reviewing pages from plaintiff’s and defendant’s websites.¹⁵³ Interestingly, the court denied the defendant’s motion for summary judgment and initially determined that the “look and feel” of a website was predicated upon the “look,” which the court said comprised “colors, shapes, layouts [and] typecases,” and the “feel,” including “certain navigation elements” such as “buttons, boxes, menus and hyperlinks.” The court ultimately determined that the colors of the plaintiff’s website¹⁵⁴ and the phrases used on the website¹⁵⁵ were nonfunctional since they were “merely adornment and did not ‘constitute the actual benefit that the consumer wishes to purchase.’”¹⁵⁶

In another case, *Blue Nile v. Ice.com*,¹⁵⁷ an online diamond retailer developed a web site that allowed users to select and purchase diamonds based on certain factors, including the cost, quality, and size of the stone. Blue Nile alleged that the Defendant copied the “look and feel” of the Plaintiff’s site, in violation of the Plaintiff’s trade dress under Section 1125(a) of the Lanham Act and copyright claims. The court noted that the copyright claims did not provide an “adequate remedy” on the face of case, and requested “greater factual development” for the trade dress claim.

In conclusion, current application of the functionality doctrine is not incompatible with protection of UX under trade dress. Similar to the proposal in Section III.A.1., however, a doctrine of “UX Exceptionalism” would favor application of the Aesthetic functionality test over the Utilitarian functionality test to accommodate the “functionality doctrine” to the particularities of the UX industry.

CONCLUSION

Technology is rapidly advancing and UX is advancing along with it. But as the proverb goes, *plus ça change*: the more things change, the more they stay the same. While the external interface of UX continues to change, the underlying *je ne sais quoi*, its intangible “look and feel” repeatedly remains constant. The benefits UX provides to its users also include intangibles, which is precisely why UX is challenging to define in the legal scope. Indeed, “the magic is no longer in the machine; it’s in the machine’s ability to make life better.”¹⁵⁸ Current IP disciplines, while significant, do not wholly address the intangible qualities of the dynamic nature that UX provides. Thus, the UX Exception within the trade dress discipline is perhaps the most viable resolution for protecting, and thereby burgeoning, the UX “look and feel.”

153. *SG Servs. Inc. v. God’s Girls Inc.*, No. CV 06-989 AHM, 2007 WL 2315437, *8-11 (C.D. Cal. May 9, 2007).

154. Predominantly pink.

155. “They’re the girl next door” and “So you wanna be a suicide girl?”.

156. *SG Servs.*, 2007 WL 2315437 at *9.

157. *Blue Nile, Inc. v. Ice.com, Inc.*, 478 F.Supp.2d 1240 (W.D. Wash. 2007).

158. BULEY, *supra* note 22, at 3.