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Twenty-first Century Trademarks: How Quirky Quick Response Codes (QUIRCS) Will Challenge the Lanham Act and the USPTO

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TWENTY-FIRST CENTURY TRADEMARKS:
HOW QUIRKY QUICK RESPONSE CODES (QUIRCS)
WILL CHALLENGE THE LANHAM ACT AND THE USPTO

Matthew C. Kulseth[†]

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I. INTRODUCTION

Perhaps you recently saw peculiar two-dimensional bar-filled squares and wondered what they were? Very likely you have come across them on a billboard, your cereal box, the bottom of a TV screen, the entrance to your favorite restaurant, or on a real estate sign in the front yard of a neighbor's house. In the past two years, the U.S. has experienced an explosion of interest in Quick Response code (hereinafter "QR Code") technology.¹ One recent report found an astounding 4549% increase in QR Code scanning in the last year.²

A February 2011 survey concluded that 49% of smartphone users who have seen a QR Code image have used one.³ Smartphone users equipped with any number of QR Code reading applications can scan a two-dimensional barcode, which prompts the smartphone to open up a designated website, display text, call a number, view a virtual business card, or even make a mobile payment. As QR Code use continues to grow rapidly, inevitably the technology will challenge current U.S. trademark law. This paper is primarily concerned with how QR Code technology fits into the current trademark law landscape. The full usefulness of QR Code technology is only now beginning to emerge.

On April 20, 2010, Google introduced Google Places.⁴ Google Places allows businesses to put a QR Code image on their business cards, marketing material, and the front of their stores.⁵ Customers passing by the store can scan the business's QR Code image and jump directly to the store's Place Page,⁶ where those customers can read reviews of the business, find deals offered by the business, "star" the location for future reference, and leave their own review.⁷ Of

¹ QR CODE is a registered trademark of Denso Wave Incorporated. See *QR Code Patent FAQ*, QR CODE.COM, <http://www.qrcode.com/en/faqpatent.html> (last visited June 12, 2012).

² Helen Leggatt, *Mobio: 4549% YoY Rise in QR Code Scanning*, BIZREPORT (May 10, 2011), <http://www.bizreport.com/2011/05/mobio-4549-rise-is-qr-code-scanning-this-year.html>.

³ *QR Code Usage and Interest Survey*, MGH (Feb. 2011), <http://mghus.com/assets/managed/QR%20code%20Stats%203%2023%2011.pdf>.

⁴ John Hanke, *Introducing Google Places*, THE OFFICIAL GOOGLE BLOG (Apr. 20, 2010, 5:00 AM), <http://googleblog.blogspot.com/2010/04/introducing-google-places.html>.

⁵ *Id.*

⁶ Lior Ron, *Place Pages for Google Maps: There are Places We Remember!*, THE OFFICIAL GOOGLE BLOG (Sept. 24, 2009, 3:08 PM), <http://googleblog.blogspot.com/2009/09/place-pages-for-google-maps-there-are.html>.

⁷ *Favorite Places: What's That Barcode?*, GOOGLE, <http://www.google.com/help/maps/favoriteplaces/business/barcode.html> (last visited Jan. 8, 2012). But see Ruud Hein, *Google Stops QR Codes for Google Places*, SEARCH ENGINE PEOPLE (Mar. 31, 2011), <http://www.searchenginepeople.com/blog/google-stops-qr-codes-for-google-places.html> (suggesting that while Google is no longer actively facilitating QR Codes for Google Places, QR Codes will still be supported and may be created using Google's URL Shortener); Sarah Perez,

course, businesses using QR Codes need not go through Google to cultivate similar user interfaces.⁸ Google is not alone in realizing the potential for this fascinating technology.

Advertisers have recently modified standard QR Code images by embedding, integrating, or overlaying existing logos into an unadulterated QR Code image, thus creating a very quirky QR Code image (hereinafter “QuiRC”; pronounced kwûrk).⁹ The result is a very useful potential trademark that operates as both an indicia of source or origin to the consumer, as well as a jumping off point to a particular webpage. The benefit to consumers and providers of goods and services is obvious: these twenty-first century trademarks drastically lower consumers’ search costs. The looming legal question is whether the United States Patent and Trademark Office (hereinafter “USPTO”) and the Lanham Act will ultimately recognize QR Code images and QuiRCs, when properly placed on goods or used in connection with services, as registrable and enforceable. A number of pending trademark applications containing QR Code images are currently or have recently been before the USPTO.¹⁰ One application consists solely of a QR Code image as its purported trademark.¹¹ To fully understand the

Google Ditches Barcodes for NFC, READWRITEWEB (Mar. 31, 2011, 9:24 AM), http://www.readwriteweb.com/archives/Google_Joins_NFC_Forum_Ditches_QR_Codes.php (explaining how Google may be phasing out QR Code technology in Google Places in lieu of near field technology).

⁸ Jason Ankeny, *How One Small Company is Using QR Codes*, ENTREPRENEUR (Oct. 3, 2011), <http://www.entrepreneur.com/article/220359> (describing how a Minnesota wine retailer named Sacre Bleu has utilized QR Code images to link customers to a website where they can obtain wine brand information, promotions, and food and wine pairing tips).

⁹ “QuiRC” is the designation created by the author for ease of referencing modified QR Code images. Examples of each flavor of QuiRC are footnoted in the pages that follow.

¹⁰ Some of the more interesting applications not disclaiming the QR Code image include: SCAN BUGGY.COM for a website providing QR Code creation, U.S. Trademark Application Serial No. 85,449,721 (filed Oct. 18, 2011); SKANBANDZ.COM for bracelets, U.S. Trademark Application Serial No. 85,169,434 (filed Nov. 4, 2010); QROSSWORDPUZZLE.COM SCAN PLAY WIN for crossword puzzles accessible by QR Code scan, U.S. Trademark Application Serial No. 85,198,634 (filed Dec. 15, 2010); SCAN MY BOOBIES RASCALFILBERT.COM for T-shirts, U.S. Trademark Application Serial No. 85,198,136 (filed Dec. 15, 2010); QR Code image on a shoe tongue for a footwear company, U.S. Trademark Application Serial No. 85,244,802 (filed Feb. 17, 2011); QR Code image for footwear, U.S. Trademark Application Serial No. 85,234,592 (filed Feb. 4, 2011); CVM for construction services, U.S. Trademark Application Serial No. 85,251,720 (filed Feb. 25, 2011); and QRPETS for social networking services for pets and pet owners, U.S. Trademark Application Serial No. 85,271,655 (filed Mar. 20, 2011), among others.

¹¹ U.S. Trademark Application Serial No. 85,234,592 (filed Feb. 4, 2011) (registering for footwear by applicant Consolidated Shoe Company). Applicant abandoned the application after receiving a second office action finding the proposed mark merely informational. The applicant did not contest the finding by the examining trademark attorney.

legal issues, an explanation of the QR Code technology and its use in mobile tagging is essential.

II. QR CODES AND QUIRCs 101

The past two decades have seen a fundamental change in the ways and means QR Code images have been displayed and used. These modifications are instructive in understanding how consumers view and consume QR Code images and QuiRCs today, which is essential to analyzing whether these images function as trademarks. With the development of the QR Codes came the ability to incorporate QR Code software technology in smartphones via mobile tagging applications. In a twist of fate, the software code making QR Code images readable in less than ideal conditions ultimately gave rise to modifying QR Code images into QuiRCs. What follows is a synopsis of QR Code development, the use of mobile tagging, and ultimately the creation of QuiRCs.

A. *The Origins of Quick Response Code Technology*

Initially released in 1994 by Denso Wave,¹² a subsidiary of Toyota, as a means to better track vehicle parts,¹³ QR Code improves upon older bar code technologies by improving the anticounterfeiting, error-correcting, and confidentiality capabilities that were lacking in traditional one-dimensional bar codes.¹⁴ Traditional linear bar code implementations are clumsy to scan due to the user's need to precisely align a scanner with the bar code. QR Code implementations obviate the need for precise alignment by adding a second dimension.¹⁵ All QR Code images contain a square in three of four corners, and a smaller square near the fourth corner, which allow a scanner's software to determine the proper orientation and alignment for decoding.¹⁶

¹² *About 2D Code*, QR CODE.COM, <http://www.qrcode.com/en/aboutqr.html> (last visited June 8, 11 2012).

¹³ RM Downey, *What are QR Codes and How Do I Use Them for Marketing?*, HIP VINE (Mar. 6, 2012), <http://www.hipvine.com/2012/03/06/what-are-qr-codes-how-do-i-use-them-for-marketing/>.

¹⁴ HANDBOOK OF AUGMENTED REALITY 341–44 (Borko Furht ed. 2011), available at <http://books.google.com/books?id=fG8JUdrScsYC&lpq=PP1&dq=Handbook%20of%20Augmented%20Reality&pg=PA341#v=onepage&q&f=false>; Miguel Hernandez, *What is a QR Code?*, GRUMOMEDIA (Oct. 2011), <http://grumomedia.com/what-is-a-qr-code/>.

¹⁵ *QR Code Features*, QR CODE.COM, <http://www.qrcode.com/en/qrfeature.html>

¹⁶ *How Big Does a QR Code Need to be for Printing?*, JAMES RIVER PRESS, <http://jamesriverpress.com/guides/how-big-does-qr-code-need-be-printing> (last visited Jan. 8, 2012) (“There are three ‘position’ squares in the corners that are 8x8 modules in size, as well as one or more ‘alignment’ square that is 5x5 modules. These square are used to align the image if you are scanning it at an angle.”). See also 3 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 19:64 (4th ed. 2010) (discussing the need to disclaim matter in a trademark application that is not inherently distinctive). Because these four squares are

A second benefit of two-dimensional coding is the vast increase in information the QR Code image may contain.¹⁷ Because linear bar codes are only one-dimensional, they are limited in the amount of data they can convey to a scanner.¹⁸ The addition of a second dimension allows for a significant increase in the amount of data the QR Code can represent.¹⁹ This intersection of speed and data allows for a variety of new uses to crop up beyond tracking auto parts.²⁰ Chief among these uses is mobile tagging.

B. Mobile Tagging

Mobile tagging is the process of providing data to a user's smartphone through the use of the phone's camera hardware and QR Code application software, typically using wireless mobile telecommunications technology.²¹ When a picture of a two-dimensional barcode is taken, the software decodes the image and prompts the phone's web browser to a particular Universal Resource Locator (URL).²² This development was only made possible by the increasing sophistication of smartphone technology and faster wireless networks. The benefits of mobile tagging are immense.

Google word searches aside, the technology frees users from the laborious effort of remembering, locating, and entering a specific website address into a web browser's address bar.²³ QR Codes may very well turn out to be "URL

present and identical in all QR Code images they are likely generic, not inherently distinctive, and should properly be disclaimed.

¹⁷ *QR Code Features*, *supra* note 15 (discussing how linear barcodes can encode approximately 20 digits).

¹⁸ *Id.*

¹⁹ *Id.* (describing how QR Code images can encode up to 7,089 characters).

²⁰ John Hanke, *Introducing Google Places*, THE OFFICIAL GOOGLE BLOG (Apr. 20, 2010, 5:00 AM), <http://googleblog.blogspot.com/2010/04/introducing-google-places.html>; *QR Code*, WIKIPEDIA, http://en.wikipedia.org/wiki/QR_Code#cite_note-1 (last visited Jan. 8, 2012) (noting various uses of QR Code technology, including: creating virtual business cards (vCards), opening Uniform Resource Identifiers (URI), composing of email, and mobile tagging).

²¹ *Mobile Tagging (QR Codes) – Make Traditional Media Interactive*, SIR SPEEDY, http://sirspeedycentennial.com/category/qr_codes_mobile_tagging/ (last visited Jan. 8, 2012); Cliffano Subagio, *QR Code Usage in Japan*, GEEKING, LIVING, TRAVELLING (May 18, 2009, 1:28 AM), <http://blog.cliffano.com/2009/05/18/qr-code-usage-in-japan/> (blog post discussing the prominence of QR Code usage in Japan). Indeed, Japan is the earliest adopter and user of QR Code technology.

²² *The True Power of QR Codes*, BEQRIOUS, <http://beqrious.com/show/how-it-works; Mobile Tagging>, WIKIPEDIA, http://en.wikipedia.org/wiki/Mobile_tagging (last visited Jan. 8, 2012).

²³ *Our Services: QR Codes*, GABRIEL MEDIA GROUP, <http://www.gabrielmediagroupinc.com/qr-code> (last visited Jan. 8, 2012).

killers.”²⁴ Discussing the clumsiness of accessing URLs, the author of a patent in this technology field writes:

[W]e realized that published computer addresses—whether URLs or otherwise—were difficult for people to use because they have to be tediously entered into their computers. . . . Another problem using the Internet, we realized, is that many users have trouble even finding URLs or other network addresses for desired sites such as Web pages. Accordingly, Web site sponsors publish their Web site URLs in print advertising and on packaging. The difficulty with this approach however is that the URLs are still long, and cumbersome to remember and enter into a computer.²⁵

What effect this patent filing from 1999 has on the development of mobile tagging, if any, is unclear.²⁶ What is apparent is that QR Code, in certain instances, can be a much more efficient means to find a particular product or service on the Internet than a Google search. More important than the aforementioned patent, in terms of technology development and dissemination, was Denso-Wave’s decision to open the technology up to the public.

Denso-Wave holds the patent rights on the underlying QR Code technology but has chosen not to enforce those rights or require a license for use.²⁷ Presumably, this open license will entice increased adoption of QR Code and create a market for Denso-Wave’s commercial-grade scanners.²⁸ QR Code specifications are made available through the International Organization for Standardization (ISO).²⁹ Because QR Code is available for non-licensed use,

²⁴ Sara D. Sunderland, *Domain Name Speculation: Are We Playing Whac-A-Mole?*, 25 BERKELEY TECH. L.J. 465, 491 (2010) (“Mobile phone browsing is bringing this trend into the United States. ‘Text-weary thumbs’ are making it possible for ‘QR’ codes, considered by some to be URL killers, to gain acceptance in the U.S.” citing Garrick Schmitt, *Can a ‘URL Killer’ Save our Text-Weary Thumbs?*, ADVERTISING AGE (Jul. 28, 2009), <http://adage.com/article/digitalnext/mobile-marketing-qr-codes-finally-close-reality/138154/>).

²⁵ U.S. Patent No. 6,199,048 col. 2 ll. 38–41, 46–52 (filed Jan. 15, 1999). The interpretation of claims in U.S. Patent No. 6,199,048 and related U.S. Patent No. 5,978,773 as they pertain to mobile tagging and its implications for QR Code is beyond the scope of this paper.

²⁶ *Neomedia Techs., Inc. v. Airclic Inc.*, No. 04-C-566, 2004 WL 848181, at *8 (N.D. Ill. Apr. 16, 2004) (decision granting the defendants’ motion to dismiss for lack of personal jurisdiction in a patent infringement suit involving previously cited U.S. Patent Nos. 5,978,773, 5,933,829, 6,108,656, and 6,199,048).

²⁷ *QR Code Standardization*, QR CODE.COM, <http://www.qrcode.com/en/qrstandard.html> (last visited June 11, 2012) (“For 2D Code to become widely used, it is first necessary for QR Code specification to be clearly defined and made public.”).

²⁸ *2D Code*, QR CODE.COM, <http://www.denso-wave.com/en/adcd/product/qrcode/index.html> (last visited Jan. 8, 2012).

²⁹ *ISO/IEC 18004:2000*, INTERNATIONAL ORGANIZATION FOR STANDARDIZATION,

various websites offer free tools to create QR Code images.³⁰ Likewise, software applications for reading QR Code are readily available to download on smartphones.³¹ Some of these phones, such as BlackBerry devices, come with QR Code software already installed.³² Because of the healthy market for creating and scanning QR Code images, the use of mobile tagging continues to grow at a feverish rate.³³

C. *The Genesis of QuiRCs*

More recently, artists have begun modifying QR Code images to create more aesthetically pleasing versions. In 2006, the Italian-Belgian artist Fabrice de Nola created a series of oil and photographic works containing QR Code images.³⁴ Indicative of how QR Code images would ultimately be modified, in 2008 the Australian-born artist Simone O'Callaghan used screen-printing to push the technology's limits by drastically softening the lines contained in a QR Code image.³⁵ The work premiered on March 3, 2008 in an exhibit called "Signals in the City" at the Hannah Maclure Centre in Dundee, United Kingdom.³⁶ This is likely the first QuiRC; it looks very little like a traditional QR Code image but still preserves its usefulness. Strangely enough, it would only be a matter of days before the first marketing QuiRC appeared in London, United Kingdom.

http://www.iso.org/iso/catalogue_detail.htm?csnumber=30789 (last visited Jan. 8, 2012); *ISO/IEC 18004:2006*, INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, http://www.iso.org/iso/catalogue_detail.htm?csnumber=43655 (last visited Jan. 8, 2012).

³⁰ See, e.g., QRSTUFF, <http://www.qrstuff.com/> (last visited Jan. 8, 2012); see also KAYWA, <http://qrcode.kaywa.com> (last visited Jan. 8, 2012).

³¹ *BeeTag QR Reader v3.0*, BEETAG, <http://www.beetagg.com> (last visited Jan. 8, 2012); SCANLIFE, <http://www.scanlife.com/en/gl-apps> (last visited June 11, 2012).

³² Munish, *BlackBerry Messenger 5.0 Exciting New Feature – Built in QR Code Reader*, BLACKBERRYTUNE (August 3, 2009),

<http://www.blackberrytune.com/blackberry-messenger-5-0-exciting-new-feature-built-in-qr-code-reader/>.

³³ Leggatt, *supra* note 2.

³⁴ Active, DENOLA, <http://www.denola.com/cgi-bin/web/pag.cgi?cod=1426> (last visited Jan. 8, 2012); Fabrice de Nola, WIKIPEDIA, http://en.wikipedia.org/wiki/Fabrice_de_Nola (last visited Jan. 8, 2012).

³⁵ Simone O'Callaghan, HANNAH MACLURE CENTRE, *available at* <http://www.flickr.com/photos/28389830@N05/3637645109/in/set-72157606292052115/> (scanning the artwork prompts a text to appear on the smartphone screen that reads, "Information can tell us everything. It has all the answers. But they are answers to questions we have not asked, and which doubtless don't even arise' Jean Baudrillard.").

³⁶ *Signals in the City*, HANNAH MACLURE CENTRE BLOG (Feb. 19, 2008), <http://hannahmaclurecentre.blogspot.com/2008/02/signals-in-city.html>.

On March 12, 2008, a BBC software engineer named Duncan Robertson *embedded*³⁷ the mark BBC into a QR Code image—the first time a QR Code image created indicia of source.³⁸ Conceivably, Robertson’s creation is the pivotal moment when advertisers began to realize the marketing potential of a refashioned QR Code image. Robertson’s embedded QuiRC was made possible by taking advantage of what made QR Code so successful in the first place; the 30% accommodation for error built into the QR Code to allow for reliable scanning.³⁹ However, this meddling comes at a price. The more nonfunctioning area an alteration takes up in the QR Code, the less able the QR Code is to function properly.⁴⁰ By aesthetic measures, the BBC QuiRC is quite rudimentary when compared to the QuiRCs that soon followed.

In 2009, Louis Vuitton tapped the Japanese artist Takashi Murakami to take QR Code and its brand to a whole new level. The result is a fully functional, *integrated*⁴¹ QuiRC with color.⁴² Later designs demonstrated a third genre of QuiRC where an image is *overlaid*⁴³ on top of the QR Code.⁴⁴ Permutations of these design elements would seem possible.⁴⁵ The question is whether QR Code images and any of these QuiRC variations are registrable and enforceable.

III. QR CODES AND QUIRCs AS TRADEMARKS?

³⁷ For a discussion of embedded QuiRCs, see *infra* part III.C.

³⁸ Duncan Robertson, *More Fun with QR Codes and the BBC Logo*, WHOMWAH.COM (March 12, 2008, 10:38 PM), <http://whomwah.com/2008/03/12/more-fun-with-qr-codes-and-the-bbc-logo/>.

³⁹ *Un-Coding the QR Code*, ELFDESIGNS (Apr. 22, 2011), <http://www.elfdesigns.com.au/news/2011/04/22/un-coding-the-qr-code/> (“QR Codes can be generated with 0%, 10%, 20% or 30% error correction rates built in. Building with the 30% error correction rate adds more noise (extra boxes) within the code. 0% error correction allows the code to look more streamlined. With this, opportunities to brand the code by adding in a logo are very limited.”).

⁴⁰ *Frequently Asked Questions*, QRSTUFF.COM, <http://www.qrstuff.com/faqs.html> (“While it is possible to add an image inside the the [sic] QR Code, reducing this 30% safety buffer moves the QR Code closer to the point where it becomes potentially unstable and may not be readable in some lighting conditions, colours and display sizes. There are also some areas of the code that are more sensitive to change than other areas, so great care should be taken.”) (last visited Jan. 8, 2012).

⁴¹ For a discussion of integrated QuiRCs, see *infra* part III.D.

⁴² *Louis Vuitton QR Code*, 2D CODE (Apr. 17, 2009), <http://2d-code.co.uk/louis-vuitton-qr-code/>.

⁴³ For a discussion of overlaid QuiRCs, see *infra* part III.D.

⁴⁴ Nick Ford, *Lupe Fiasco QR Code with Video by Red Laser*, QRANYWHERE.COM (Feb. 3, 2011, 5:42 PM), <http://qranywhere.blogspot.com/2011/02/lupe-fiasco-qr-code.html>.

⁴⁵ *Custom QR Code Showcase*, QRLICIOUS, <http://www.qrlicious.com/showcase/> (demonstrating an array of QuiRCs) (last visited Jan. 8, 2012).

Before broaching the subject of whether the functionality bar of the Lanham Act prevents QR Code images and QuiRCs from registration with the USPTO and enforcement under the Lanham Act,⁴⁶ it is prudent to determine whether QR Code images and QuiRCs may properly serve as trademarks.⁴⁷ It may well be that QR Code images and distinct types of QuiRCs should receive different legal treatment. Without a more meaningful understanding of each, the evaluation is necessarily case specific. This presents a potential problem because without guideposts to aid in the identification of registrable and unregistrable QR Code images and QuiRCs, there is little predictability inserted into the USPTO system. Meaningful systemic efficiencies are only cultivated when predictability replaces an otherwise undeveloped understanding of important QR Code technology. An analysis of the registrability of QR Code images, embedded QuiRCs, integrated QuiRCs, and overlaid QuiRCs follows.

A. *The Broad Definition of “Trademark”*

The Lanham Act defines a trademark as, “any word, name, symbol, or device, or any combination thereof” that identifies and distinguishes the goods or services of a person and indicates the source or origin.⁴⁸ QR Code images standing alone have elements of both symbols and devices. QuiRCs on the other hand may be combinations of words, names, symbols, or devices. A trademark functioning properly as a source identifier need not be a traditional word mark or design mark.⁴⁹ Under this broad definition, both QR Codes and QuiRCs have potential to be trademarks, but not every design or symbol qualifies as a protectable mark.

B. *QR Codes are Merely Informational and Not Registrable*

A significant challenge to the registrability of QR Code images, which by their very nature have no traditional trademark features to speak of, is whether

⁴⁶ 3 MCCARTHY, *supra* note 16, § 19:75 (“The statutory bars of Lanham Act § 2 are introduced by the phrase ‘No trademark by which the goods of the applicant may be distinguished from the goods of others shall be refused registration on the principal register on account of its nature unless ...’ [sic] The Court of Customs and Patent Appeals has interpreted this provision as placing the burden on the Patent and Trademark Office (PTO) to prove that the mark sought for registration falls within the statutory bars of § 2.”) (footnote omitted). Thus, while the courts are primarily concerned with trademark infringement, the USPTO is chiefly responsible for determining registrability.

⁴⁷ The issue of copyright law as it may apply to QR Code images and QuiRCs is beyond the scope of this paper.

⁴⁸ Lanham Act § 45, 15 U.S.C.A. § 1127 (2006).

⁴⁹ 1 MCCARTHY, *supra* note 16, § 7:105 (“While the use as commercial marks of nontraditional indicia, such as fragrances and flavors, is unusual and rare, compared to words and logos, that is no reason not to recognize them as trademarks if they meet the traditional criteria of a trademark or service mark. The Lanham Trademark Act defines ‘trademark’ in the broadest terms. It includes nontraditional trademarks by not excluding them.”).

they can function as marks when they are primarily used to provide information, and users must wield a smartphone to discover the source or origin of its goods or services. For a designation to be deemed a trademark, “it must be used in such a manner that its nature and function [as a trademark] are readily apparent and recognizable without extended analysis or research and certainly without legal opinion.”⁵⁰ The court in *Ex Parte National Geographic Society* went on to explain the use of a trademark:

[It] does not contemplate that the public will be required or expected to browse through a group of words, or scan an entire page in order to decide that a particular word, separated from its context, may or may not be intended, or may or may not serve, to identify the product of the manufacturer or dealer.⁵¹

The intrinsic debate in this analysis is whether the relevant consuming public can decipher what, if anything, is serving as the source identifier in a QR Code image.

Anyone familiar with QR Code will understand their function as a potential means to inform consumers about a product or service. While the increasing use of QR Code demonstrates that the public is becoming ever more aware of their utility, not all QR Code images are intended to be viewed as indicia of source. In fact, there are only a handful of applications pending before the USPTO that contain QR Code images.⁵² Typically, companies advertising products with unmodified QR Code images do so with traditional marks in close proximity.⁵³ In this light, even if the QR Code image links to the website of a product, the QR Code image is best seen as providing readily available information about the product and not as a primary means to identify the source or origin of the good.

The relatively few applications pending before the USPTO would seem to indicate that there is very little use of QR Code images as sole indicators of source. While this may signal that the public does not exclusively associate QR Code images with the expectation that the image will identify a good or service, that reality may be rapidly changing. In a recent report on QR Code use it was found that 89% of QR Code image scans resulted in the smartphone user receiving information about a good or service.⁵⁴ While that statistic is impressive,

⁵⁰ *Ex parte National Geographic Society*, 83 U.S.P.Q. 260, 261 (Dec. Comm’r Pat. 1949).

⁵¹ *Id.* at 260.

⁵² At the time of this paper’s submission there were nine identifiable trademark applications containing QR Code images, not disclaimed, before the USPTO.

⁵³ Dustin R. Marks, *What is a QR Code?*, TRI-STATE TRENDS: RETAIL & OTHER TOPICS OF INTEREST (Dec. 31, 2010), <http://dustinmarks.blogspot.com/2010/12/what-is-qr-code.html> (discussing a QR Code image placed next to the mark RALPH LAUREN).

⁵⁴ Leggatt, *supra* note 2.

it is not dispositive. For a service mark to be registrable with the USPTO, “[A] designation must be used in a manner that would be perceived by purchasers as identifying and distinguishing the source of the services”⁵⁵ Because consumers who use QR Code ready smartphones are not likely to expect QR Code images to provide source information, QR Code images arguably are not registrable as trademarks. In this regard, the USPTO seems to be on the right track in evaluating trademark applications containing unadulterated QR Code images.

In the curiously named application for SCAN MY BOOBIES RASCALFILBERT.COM, the applicant sought registration of a QR Code image surrounded by the words SCAN MY BOOBIES on top, and RASCALFILBERT.COM on the right.⁵⁶ The examining attorney found the proposed design mark of the QR Code image merely informational, arguing that “[t]he quick response code [image] does not function to identify and distinguish applicant’s goods from those of others or to indicate the source of the applicant’s goods.”⁵⁷ In a similar finding of a different application from several weeks before, an examining trademark attorney also found a bare QR Code image with no annotation for footwear merely informational.⁵⁸

Moreover, procuring potentially source-identifying information from a QR Code image requires a scanner. This is strong evidence that QR Code images, without something more, are merely informational. And merely informational items are not registrable with the USPTO.⁵⁹ Many QR Code images are used to convey information generally, and therefore users are likely to view QR Code

⁵⁵ U.S. PATENT & TRADEMARK OFFICE, U.S. DEP’T COMMERCE, TMEP (8th ed. 2011) [hereinafter TMEP]; see also *In re Brock Residence Inns, Inc.*, 222 U.S.P.Q. 920, 921 (T.T.A.B. 1984) (finding FOR A DAY, A WEEK, A MONTH OR MORE! so highly descriptive and informational in nature that *purchasers would be unlikely to perceive it as an indicator of the source* of hotel services) (emphasis added).

⁵⁶ U.S. Trademark Application Serial No. 85,198,136 (filed Dec. 15, 2010).

⁵⁷ U.S. PATENT & TRADEMARK OFFICE, U.S. DEP’T COMMERCE, Office Action for U.S. Trademark Application Serial No. 85,198,136 (filed Nov. 4, 2010), <http://tdr.uspto.gov/search.action?sn=85198136#> (follow “15-Jun-2011 Offc Action Outgoing” hyperlink in the middle of the page) (Persuasive to the author, the examining attorney also found the proposed QR Code image to be merely ornamental).

⁵⁸ U.S. PATENT & TRADEMARK OFFICE, U.S. DEP’T COMMERCE, Office Action for U.S. Trademark Application Serial No. 85,234,592 (filed Feb. 4, 2011), <http://tdr.uspto.gov/search.action?sn=85234592#> (follow “25-May-2011 Offc Action Outgoing” hyperlink in the middle of the page) (The examining attorney did not allege the proposed mark to be merely ornamental).

⁵⁹ TMEP, *supra* note 55, § 1202.04 (“Slogans and other terms that are considered to be merely informational in nature . . . are not registrable.”). Slogans, like QR Code technology, have the ability to help viewers better remember trademarks and service marks.

images as information tools rather than source indicators. For example, art exhibitors have used QR Codes as a way to give viewers more information about the displayed artwork.⁶⁰ These scanning patrons do not expect to be directed to information pertaining to where they can purchase the artwork. They likely expect to be directed to information about the artist, the name of the artwork, the year it was created, etc.

Additionally, a QR Code image, when compared to another QR Code image with the naked eye, is virtually identical, indicating that QR Code images are very likely indistinguishable to the public and thus devoid of source significance. Practically speaking, having numerous QR Code images registered with the USPTO potentially creates a plethora of likelihood of confusion issues if viewed without the aid of a smartphone or scanner. It would be very peculiar if the USPTO would accommodate such technology by requiring its examiners to have smartphones or scanners. If QR Code images were allowed registration and examiners were not allowed use of scanner technology to distinguish between QR Code images, the result would be absurd. The effect would be a race to use or file an intent-to-use application for QR Code images in every international class across various categories of goods and services.

The fact that a potential consumer can scan a QR Code image, access a website, and identify the source in a matter of mere seconds is of no concern. The Trademark Manual of Examination Procedures (hereinafter “TMEP”) is a reference work used by USPTO trademark examiners during the registration process. The TMEP makes no exception for marks requiring a tool to convey source-identifying information. Therefore, unenriched QR Code images do not act as trademarks. QuiRCs, however, are quite the opposite as the following sections evidence.

C. Embedded QuiRCs do Not Act as Trademarks

To obtain registration and protection, a design or symbol must function as a trademark.⁶¹ The primary question is whether the design will be recognized, in and of itself, as an indication of origin for a particular product or service. Cases concerning design backgrounds, due to their abstract graphical nature, serve as an insightful means to evaluate the registrability of embedded QuiRCs.

⁶⁰ *Greening the MF: QR Codes*, YOUTUBE (Apr. 2, 2009), <http://www.youtube.com/watch?v=WiYtISB14PM>.

⁶¹ 1 MCCARTHY, *supra* note 16, § 7:24 (“Marks do not have to consist of letters, numbers or words. Any picture, design or symbol may be capable of serving the trademark function of identifying goods and services and distinguishing them from those offered for sale by others in the market.”).

In *Application of E.J. Brach & Sons*, the background design of a candy label was rejected for registration because it did not serve as a separate mark.⁶² There the court opined, “we do not think that the average consumer of applicant’s product will regard its background frills and curves as ‘an unmistakable, certain and primary means of identification pointing distinctly to the commercial origin of such product’”⁶³ More simply put, to be registrable a background must create a commercial impression separate and distinct from other material it surrounds.⁶⁴

In the context of embedded QuiRCs, such as the BBC QR Code image previously discussed,⁶⁵ a prohibition barring registration of the QR Code image surrounding the mark BBC makes logical sense. Such a background of bars and squares does not serve any immediate source-identifying purpose, nor does it create a separate commercial impression apart from the embedded BBC mark. Indeed, registration of an embedded QuiRC would seem redundant in light of an applicant’s prior registration of the word mark or design mark. The applicant may still assert trademark rights in the registered word or design mark against third parties despite not having the embedded QuiRC registered with the USPTO.

However, if a registrant holding a registered design mark such as a logo, which may or may not include characters, wishes to add a QR Code image to the mark’s background, essentially creating an overlaid QuiRC, the registrant would seek to amend its registration with the USPTO.⁶⁶ The material alteration rule allows an applicant to amend a registration or disclaim an aspect of the registration, without having to publish the alteration for opposition, so long as that amendment does not materially alter the character of the mark.⁶⁷ Whether such an amendment would be allowed is dependent upon how the previously registered

⁶² *Application of E.J. Brach & Sons*, 256 F.2d 325, 328, 118 U.S.P.Q. 308 (C.C.P.A. 1958).

⁶³ *Id.*

⁶⁴ 1 MCCARTHY, *supra* note 16, § 7:27.

⁶⁵ Robertson, *supra* note 38.

⁶⁶ TMEP *supra* note 55, § 1609.02 (“[U]pon application by the owner and payment of the prescribed fee, a registration based on an application under § 1 or § 44 of the Trademark Act may be amended for good cause, if the amendment does not materially alter the character of the mark.”).

⁶⁷ TMEP *supra* note 55, § 1609.02(a) (“In determining whether a proposed amendment is a material alteration of a registered mark, the USPTO will always compare the proposed amendment to the mark *as originally registered*. The general test of whether an alteration is material is whether, if the mark in an application for registration had been published, the change would require republication in order to present the mark fairly for purposes of opposition. If republication would be required, the amendment is a material alteration.”); 3 MCCARTHY, *supra* note 16, § 19:133 (“If the registrant has so changed the mark that it presents a new commercial impression on buyers, the registrant must file a new application, not merely amend the existing registration.”).

mark interacts with the addition of a QR Code image.⁶⁸ In all probability, an applicant seeking to amend a design mark to include an overlaid QR Code background may do so. This is because such an amendment preserves the essence of the previously registered mark and simply adds a new background design, which can best be viewed as “mere embellishment.”⁶⁹

Ultimately, allowing amendments to overlay a QR Code image on existing design marks would not have an unfair effect on other interested parties because opposition to registration of any aspect of the mark that presents a likelihood of confusion would have taken place with the initial registration of the unadulterated design mark. Integrated marks, given their unique nature, are obviously not candidates for amending a prior registration. Regardless, while embedded QuiRCs suffer from the fatal flaw of having unregistrable backgrounds, integrated and overlaid QuiRCs do not.

D. Integrated and Overlaid QuiRCs Function as Trademarks

For a myriad of reasons, integrated and overlaid QuiRCs have the enhanced ability to identify source or origin and thus properly function as trademarks without falling prey to the pitfalls of merely informational QR Code images and unregistrable background designs of embedded QuiRCs. To begin, QuiRCs, unlike QR Code images, readily identify the source of goods or services similar to traditional trademarks. Viewers can identify the source immediately without the aid of a smartphone scan. Thus, QuiRCs, unlike QR Code images, are not merely informational. Second, integrated and overlaid QuiRCs, unlike embedded QuiRCs, do not suffer from conceptually separate backgrounds. Paramount to this discussion is the concept of unitary marks.

Unitary marks are those marks where the separate parts of the mark are so intertwined and merged together that the parts can no longer be said to be separate elements.⁷⁰ The TMEP expressly allows for registration of such marks:

A mark or portion of a mark is considered “unitary” when it creates a commercial impression separate and apart from any

⁶⁸ TMEP *supra* note 55, § 1609.02(a) (“An amendment of a registered mark is acceptable if the modified mark contains the essence of the original mark (i.e., the mark as originally registered), and the mark as amended creates essentially the same impression as the original mark. In re Umax Data System, Inc., 40 USPQ2d 1539 (Comm’r Pats. 1996). For example, in marks consisting of word(s) combined with a design, if the word is the essence of the mark and the design is merely background embellishment or display that is not integrated into the mark in any significant way, the removal or change of the design will not be a material alteration of the mark. See *Ex parte Petersen & Pegau Baking Co.*, 100 USPQ 20 (Comm’r Pats. 1953).”).

⁶⁹ *Id.*

⁷⁰ *Id.* § 1213.05.

unregistrable component. That is, the elements are so merged together that they cannot be divided to be regarded as separable elements. If the matter that comprises the mark or relevant portion of the mark is unitary, no disclaimer of an element, whether descriptive, generic, or otherwise, is required.⁷¹

The application of this rule in regards to integrated and overlaid QuiRCs requires that otherwise unregistrable design aspects, such as QR Code images, when combined with source identifying elements, should be found unitary and not require a disclaimer.⁷² Case law is very insightful in fleshing out this issue.

In *Dena Corp. v. Belvedere Intern., Inc.*, the Federal Circuit found that a word-design mark containing two words over a circle was not a unitary mark because the words and design were not “connected by any lines or design features” and “[n]othing melds EUROPEAN FORMULA with the circular design to create a single indivisible symbol.”⁷³ Quite the opposite is true of overlaid QuiRCs and in particular integrated QuiRCs.

The functional lines of an overlaid QuiRC touch upon all aspects of the overlaid image. These lines can accurately be said to connect the QuiRC as a whole. Integrated QuiRCs are the epitome of unitary marks in which the source identifying attributes and URL linking aspects of the QuiRC are entirely melded and connected with one another. Beyond these marks being unitary, public policy strongly supports registration of these consumer friendly marks.

1. Public Policy Supports Registrability of QuiRCs

Two underlying rationale for the protection of trademarks is that such protection serves to: 1) lower consumer search costs by protecting consumers from confusion, and 2) protect sellers from unfair competition.⁷⁴ QuiRCs, particularly integrated and overlaid QuiRCs, meet these goals better than any traditional mark and thus should be deemed registrable. These QuiRC varieties

⁷¹ *Id.*

⁷² *Dena Corp. v. Belvedere Int’l, Inc.*, 950 F.2d 1555, 1560–61, 21 U.S.P.Q.2d 1047, 1051 (Fed. Cir. 1991) (explaining that no registration disclaimer is required of an element in a unitary mark due to the fact that a unitary mark has no “unregistrable component” to disclaim and is an inseparable whole).

⁷³ *Id.* at 1561.

⁷⁴ S. REP. NO. 79-1333, at 3 (1946) (“The purpose underlying any trade-mark statute is twofold. One is to protect the public so it may be confident that, in purchasing a product bearing a particular trade-mark which it favorably knows, it will get the product which it asks for and wants to get. Secondly, where the owner of a trade-mark has spent energy, time, and money in presenting to the public the product, he is protected in his investment from its misappropriation by pirates and cheats.”).

have the unique ability to steer interested consumers directly to information concerning the good or service and thus lower the amount of time it takes a consumer to properly identify the exact provider of the good or service. Consumer search costs are significantly lowered as a result. Smartphone equipped consumers do not have to go through the process of sorting the chaff from the wheat when researching the good or service online.

Furthermore, because these QuiRCs jump consumers to one designated website, the trademark user is significantly less likely to face unfair competition from a competitor or counterfeit provider. This is because QuiRCs linking to websites will have a deterrence effect on would-be trademark infringers. If a competitor were to use a QuiRC in a confusingly similar manner as a means to redirect consumers away from the senior user, the junior user's designated website may serve as *prima facie* evidence of a willful intent to pass off the junior user's goods or services as those of the senior user. In effect, infringement of a QuiRC is trademark infringement of the traditional mark within the QuiRC. The integrated or overlaid QR Code simply shows willfulness.

For example, if a senior user advertises its product with an overlaid QuiRC and a junior competitor appropriates the overlay design and substitutes a different QR Code image behind that overlay, the junior user's designated URL could serve as conclusive evidence of willful infringement of the senior user's trademark.⁷⁵ In light of the potential treble damages, lost profits, and attorney fees associated with willful infringement,⁷⁶ QuiRCs have more deterrence effect when compared to traditional trademarks. While many trademark infringers are not savvy enough to know the legal ramifications of a finding of willful intent, at least the remedies available to the plaintiff have the potential, if the defendant's pockets are deep enough, to make the plaintiff whole. Having demonstrated that certain QuiRCs easily identify as designations of origin, reduce consumer search costs, and deter trademark infringement, the remaining issue in determining the

⁷⁵ See Lanham Act § 35(a), 15 U.S.C.A. § 1117(a) (2006); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 37 cmt. e (1995). Courts now consider a number of factors in determining whether to disgorge a defendant of profits, add punitive damages, and assess attorney fees. These factors include: the defendant's willfulness, negligence or innocence, whether the plaintiff suffered loss in any provable amount, whether there is proof of actual confusion to customers, and whether the defendant realized profits from its infringing actions. RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 37 (1995).

⁷⁶ Lanham Act § 35(a), 15 U.S.C.A. § 1117(a) (2006); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 37 cmt. e (1995) ("The better view limits an accounting of profits to acts intended to create confusion or to deceive prospective purchasers."); 5 MCCARTHY, *supra* note 16, § 30:64 (arguing the older traditional view that an accounting of an infringer's profits serves to measure a plaintiff's loss while in the modern view of accounting, disgorgement serves to prevent unjust enrichment as well as deter would-be infringers).

registrability of QuiRCs as trademarks turns on whether they are merely ornamental.

2. QR Code Images are Merely Ornamental but QuiRCs are Not

As previously mentioned, there are a number of applications containing QR Code images currently pending before the USPTO.⁷⁷ Several have begun review by USPTO trademark examiners, two of which have received office actions citing ornamentation refusals.⁷⁸ As most office action refusals tend to be, both are rather cagey and vague about what specifically is ornamental in the applications' drawings. The examining trademark attorney for the proposed mark SKANBANDZ argues, "Registration is refused because the applied-for mark . . . is merely a decorative or ornamental feature of the goods; it does not function as a trademark to identify and distinguish applicant's goods from those of others and to indicate the source of applicant's goods."⁷⁹ The refusal for SCAN MY BOOBIES RASCALFILBERT.COM is much the same.⁸⁰

Though the refusals are not specific, presumably the examiners are referring to the QR Code images in the applications. A review of case law on ornamentation reveals that ornamentation is an appropriate ground for the USPTO to reject QR Code images. However, the T.T.A.B. cases cited by the examiners tell only half the story. A more balanced analysis of ornamentation reveals that QuiRCs ought not be deemed ornamental.

TMEP § 1202.03 covers refusals based on ornamentation. The TMEP states that "[s]ubject matter that is *merely a decorative feature* does not identify and distinguish the applicant's goods and, thus, does not function as a trademark."⁸¹

⁷⁷ See *supra* note 10 and accompanying text.

⁷⁸ U.S. Trademark Application Serial No. 85,169,434 (filed Nov. 4, 2010) (applying for SKANBANDZ.COM for "Rubber or Silicone Jewelry as a fashion accessory that contains a quick response code or 2-dimensional bar code printed on it that when scanned will redirect to a user defined function on the internet."); U.S. Trademark Application Serial No. 85,198,136 (filed Dec. 15, 2010) (applying for SCAN MY BOOBIES RASCALFILBERT.COM for "Pajamas; Sleep shirts; Tank tops. . . . T-Shirts."). The SKANBANDZ application was published for opposition on May 3, 2011. U.S. Trademark Application Serial No. 85,169,434 (filed Nov. 4, 2010). Likely, this was an error as the applicant did not respond to the second office action but only amended its filing basis claiming actual use in commerce. There will likely be another action withdrawing it from publication or the registration will issue in error.

⁷⁹ United States Patent and Trademark Office, Office Action for U.S. Trademark Application Serial No. 85,169,434 (filed Nov. 4, 2010), <http://tdr.uspto.gov/search.action?sn=85169434> (follow "16-Mar-2011Offc Action Outgoing" hyperlink in the middle of the page).

⁸⁰ United States Patent and Trademark Office, Office Action for U.S. Trademark Application Serial No. 85,198,136 (filed Dec. 15, 2010), <http://tdr.uspto.gov/search.action?sn=85198136> (follow "15-Jun-2011 Offc Action Outgoing" hyperlink in the middle of the page).

⁸¹ TMEP, *supra* note 55, § 1202.03 (emphasis added).

The operative word in that sentence is “merely,” indicating that a mark containing some ornamentation can be registrable. Indeed, most functioning marks contain some ornamentation to visually appeal to consumers. As one learned commentator describes it, “If customers perceive a design only as pleasing ornamentation, then the design is not a trademark. If customers perceive a design as not only attractive, but as an indicator of source, then it is a trademark.”⁸²

QuiRCs, due to their unitary nature, combine readily identifiable source indicia with a potentially ornamental QR Code design. The combination is not merely ornamental because the QuiRC still has the ability to be perceived by viewers as a trademark. The TMEP sets out a four-part test to determine whether an ornamentation refusal is warranted.⁸³

The first factor to be decided is “whether the overall commercial impression of the proposed mark is that of a trademark.”⁸⁴ Without belaboring the point, QuiRCs certainly function as trademarks and can be used as a direct replacement of traditional trademarks. So long as the QuiRC, like any other application for a mark, is appropriate in size, location, and dominance to appropriately function as a trademark, it should be deemed to contain commercial impression.⁸⁵ The same cannot be said of a QR Code image. While QR Code images certainly give viewers some commercial impression based upon their mainstream use in commerce, QR Code images do not give the impression of acting as a trademark. Rather, as previously discussed, unadulterated QR Code images are merely informational tools.

The second factor concerns whether the proposed mark is inherently distinctive and considers whether the “subject matter is unique or unusual in a particular field.”⁸⁶ While QuiRCs are certainly unique in that few exist, they, like traditional trademarks, may contain source identifying qualities that are both inherently distinctive and that are unique for the market of competing goods or services. For QuiRCs, this factor also weighs against a finding of ornamentation. QR Code images, however, are not unique or unusual in that there is a strong likelihood of confusion inherent in their geometric similarity.

The third factor encourages a QuiRC applicant to “submit evidence that the proposed mark would be recognized as a mark through its use with goods or services other than those being refused as ornamental.”⁸⁷ While this may be

⁸² 1 MCCARTHY, *supra* note 16, § 7:24.

⁸³ TMEP, *supra* note 55, § 1202.03.

⁸⁴ *Id.* § 1202.03(a).

⁸⁵ *In re Dimitri's Inc.*, 9 U.S.P.Q.2d (BNA) 1666, 1667 (T.T.A.B. 1988).

⁸⁶ TMEP, *supra* note 55, § 1202.03(b).

⁸⁷ *Id.* § 1202.03(c).

awkward for applicants with integrated QuiRCs due to severability issues, overlaid QuiRC applicants would simply disentangle the source-identifying portion of the QuiRC from the QR Code image and present the unadulterated mark to the USPTO. Even better for the QuiRC applicant would be the case where the applicant had used the un-enriched mark in commerce and had proof of sales to present to the USPTO before adopting the QuiRC. This factor, while not as strong as the first and second factors, also favors QuiRC registrability.

The last factor an examiner would consider is whether the QuiRC has acquired distinctiveness.⁸⁸ If the mark is inherently distinctive, then obviously no showing is necessary. This factor is fact dependent on a particular QuiRC's ability to demonstrate secondary meaning and is case dependent. Very likely, no such acquired distinctiveness is capable of being proven by a QR Code image. In sum, the four factors of ornamentation favor a finding of registrability as to QuiRCs but not as to unadulterated QR Code images. QuiRCs, particularly QuiRCs utilizing arbitrary and suggestive source indicia, are not merely ornamental while QR Code images likely are ornamental. Having shown QuiRCs ought not be barred by any ornamentation refusal, there remains the larger issue whether the Lanham Act's functionality bar applies to these unique marks.

IV. THE LANHAM ACT'S FUNCTIONALITY BAR

Paramount to determining whether QuiRCs, or QR Codes for that matter, are functional is an understanding of the differing definitions of functionality courts have used, as well as case law concerning functional two-dimensional designs, and public policy rationales supporting the functionality prohibition. Historically at common law, no trade dress or trademark rights could be claimed in indicia having merely functional shapes or features.⁸⁹ In 1998 Congress formally adopted the functionality rule and amended the Lanham Act by barring any mark, which "comprises any matter that, as a whole, is functional."⁹⁰

A. Differing Definitions of Functionality

In defining "functionality," courts have devised many different formulations with limited clarity or consistency.⁹¹ For example, the Third Circuit has said, "a feature of goods is considered non-functional if 'the element of the product serves no purpose other than identification.'"⁹² The Seventh Circuit has simply stated that "[a] functional feature is one which is shared by different brands that is costly

⁸⁸ *Id.* § 1202.03(d).

⁸⁹ 1 MCCARTHY, *supra* note 16, § 7:63.

⁹⁰ Trademark Law Treaty Implementation Act, Pub. L. No. 105-330, § 201, 112 Stat. 3064, 3069 (1998); 15 U.S.C. § 1052(e)(5) (2006).

⁹¹ 1 MCCARTHY, *supra* note 16, § 7:69.

⁹² *Ideal Toy Corp. v. Plawner Toy Mfg. Corp.*, 685 F.2d 78, 81 (3d Cir. 1982).

not to have.”⁹³ Indicative of QuiRCs being nonfunctional is the difficulty of finding a definition or test that aptly applies.

Significantly, each definition indicates that functionality arises only when the element in question is a product feature of a good, thus requiring the claimed trademark to be affixed in some manner to that article, or be the article itself. It should be noted that a QuiRC is no such product, but would rather be affixed, similar to a traditional mark, to the good it identifies. The classic definition of functionality is Justice Brandeis’s formulation describing functionality as an analysis of the article’s practical design as it relates to the article’s cost. Finding shredded wheat cereal biscuits functional and Kellogg not infringing, Justice Brandeis opined, “The evidence is persuasive that this form is functional—that the cost of the biscuit would be increased and its high quality lessened if some other form were substituted for the pillow-shape.”⁹⁴

Important to Justice Brandeis in *Kellogg* was the utilitarian function of the biscuit design. The later Supreme Court decision in *Inwood* is considered the “traditional rule” and provides that “[i]n general terms, a product feature is functional if it is essential to the use or purpose of the article or if it affects the cost or quality of the article.”⁹⁵ All these particular rules are ill equipped for analyzing the functionality of QuiRCs because the designs are not attached to the good to serve a physical function, but rather serve an entirely different purpose—providing visual information.

Perhaps the most logical test for determining functionality comes from *Smack Apparel* out of the Fifth Circuit, when it applied its interpretation of *TrafFix* to color schemes of clothing, finding no functionality.⁹⁶ There the court applied two tests, a primary test and a secondary test. In the primary test the court looked to determine whether the feature was essential to the purpose of the product and had an impact on quality or cost. The secondary test sought to discover whether the exclusive use of the plaintiff would compromise fair competition. In applying its test the court opined:

[T]he presence of the plaintiffs’ marks serve no function unrelated to trademark The school colors and other indicia used here do not make the t-shirts “work.” The t-shirts would function just as well as articles of clothing without the colors and designs.

⁹³ *Serv. Ideas, Inc. v. Traex Corp.*, 846 F.2d 1118, 1123 (7th Cir. 1988) (citing *W.T. Rogers Co., Inc. v. Keene*, 778 F.2d 334, 339 (7th Cir. 1985)).

⁹⁴ *Kellogg Co. v. Nat’l Biscuit Co.*, 305 U.S. 111, 122 (1938).

⁹⁵ *Inwood Labs., Inc. v. Ives Labs., Inc.*, 456 U.S. 844, 850 n.10 (1982).

⁹⁶ *Bd. of Supervisors for Louisiana State Univ. Agric. and Mech. Coll. v. Smack Apparel Co.*, 550 F.3d 465, 487–88 (5th Cir. 2008).

[Defendant's] t-shirts are sold not because of any functionality in the marks [Defendant] placed on them but rather because they bear the identifiable marks of the plaintiff Universities. The marks fail under the traditional test for functionality and are protectable.⁹⁷

Applying the *Smack Apparel* test indicates QuiRCs are nonfunctional. As a demonstration, envision one hundred Nike swoosh logos overlaid on a QR Code image that links to nike.com. Essentially this is an overlaid QuiRC. Now imagine Nike using that QuiRC in its advertising and also as a logo on its t-shirts. Under the primary test the use of the Nike QuiRC is not essential to the purpose of the product, nor does it have an impact on the cost of the t-shirt when compared to other Nike t-shirts. Applying the secondary test, it is unthinkable that Nike using this QuiRC could prohibit Adidas from using a similar Adidas QuiRC. The case law on two-dimensional functional designs is minimally insightful in resolving the issue.

B. *Functionality Case Law Concerning Two-Dimensional Design*

The most relevant case on functional two-dimensional designs is a 1981 T.T.A.B. decision regarding markings conducive to scanning on test answer sheets. When inserted into a machine, the sheets triggered an optical scanner that read them and assigned each a score.⁹⁸ In particular, National Computer Systems (hereinafter "NCS") sought trademark registration of the markings on its test cards. Very similar to how QR Code functions, the cards contained both horizontal markings that functioned as a "timing track" and signaled the area to be scanned as well as a horizontal stripe called a "bias bar" which measured the reliability of the scan. The court held the test cards functional, writing:

[T]hese indicia appear on the answer sheet or booklet input documents for the specific purpose of instructing the scanner in reading the documents; and that customers and prospective purchasers of input documents would recognize the purpose and function of these indicia when they are used on such material. It is therefore held that the design sought to be registered comprises merely functional or utilitarian indicia for input documents and, as such, is devoid of the capability of functioning as a trademark for such goods.⁹⁹

⁹⁷ *Id.* at 486.

⁹⁸ *Moore Bus. Forms, Inc. v. Nat'l Computer Sys., Inc.*, 211 U.S.P.Q. 909, 912 (T.T.A.B. 1981).

⁹⁹ *Id.* at 916.

Importantly, NCS had designed both the scanners and the cards. The case is silent as to whether NCS had a utility patent on its creation or even whether it had sought such a patent. Very likely the court and NCS's competitor, who opposed registration, had two primary concerns.

First, NCS sought from trademark law what it could only get at patent law from a utility patent. Indeed, the U.S. Supreme Court in the later *TrafFix* case opined, "A utility patent is strong evidence that the features therein claimed are functional."¹⁰⁰ Second, the court was no doubt aware that granting the registration would preclude the competitor from selling test answer sheets and fairly competing, in turn hurting consumers who would likely end up paying a monopoly rate. Arguably, when analyzing whether a two-dimensional design is functional, context matters. NCS is clearly distinguishable from the ordinary business use of a QuiRC. As discussed previously, the use of QuiRCs actually benefits consumers by reducing search costs. Also, because QR Code technology is available for use without a license, a QuiRC user has no means via a utility patent to lockout a competitor from using their own non-confusingly similar QuiRC. Putting the functionality rule in the context of the public policy that informs it sheds light on the issue.

C. Public Policy Rationale of the Functionality Bar

The bar to functionality is supported by two important principles. First, the functionality bar insures a clear line between trademark law and patent law. It would be against the principle of free competition to award use based trademark rights that may last indefinitely on an article's functional element that should properly be scrutinized under patent law.¹⁰¹ Courts are loath to allow clever registrants to acquire use-based protection on patentable subject matter.

Second, the functionality bar promotes free competition by ensuring competitors may copy features that they need to compete fairly.¹⁰² Courts have taken to considering the number of alternative designs available when considering the second rationale.¹⁰³ The more competing designs available to a competitor the less likely the competitor will be disadvantaged. While both policies are

¹⁰⁰ *TrafFix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 29 (2001).

¹⁰¹ 1 MCCARTHY, *supra* note 16, § 7:64 ("The traditional policy reason supporting the functionality doctrine is that if functional features were given trademark or trade dress protection, such protection would clearly clash with the objectives of federal functional (utility) patent law.")

¹⁰² *TrafFix Devices, Inc.*, 532 U.S. at 24 (discussing the importance of analyzing competitive necessity when not dispositive under *Inwood*); see *Inwood Labs., Inc. v. Ives Labs., Inc.*, 456 U.S. 844, 855 n.10 (1982).

¹⁰³ *Schwinn Bicycle Co. v. Ross Bicycles, Inc.*, 870 F.2d 1176, 1191 (7th Cir. 1989) (holding that an exercise bicycle is functional).

important to consider, the last may not act as a legal definition of functionality.¹⁰⁴ Summing up these policies, the Supreme Court has opined:

The functionality doctrine prevents trademark law, which seeks to promote competition by protecting a firm's reputation, from instead inhibiting legitimate competition by allowing a producer to control a useful product feature. It is the province of patent law, not trademark law, to encourage invention by granting inventors a monopoly over new product designs or functions for a limited time, 35 U.S.C. §§ 154, 173, after which competitors are free to use the innovation. If a product's functional features could be used as trademarks, however, a monopoly over such features could be obtained without regard to whether they qualify as patents and could be extended forever (because trademarks may be renewed in perpetuity).¹⁰⁵

In the ordinary sense of the word, both QR Code images and QuiRCs are functional in that the scanning of either results in a practical and useful response. However, the functionality bar policy rationale seems to indicate that QR Code images and QuiRCs are not functional for trademark purposes. It would make little sense to argue QR Code images and QuiRCs are functional because their purpose is to provide interested consumers with access to useful information, some of which regards the origins of the good or service. Applying the public policy considerations support a finding of non-function.

First, the design features of individual QuiRCs are not patentable subject matter without something more, such as a claim to the application software for decoding their message. In simplest terms, a utility patent "protects the way an article is used and works [And] may be obtained on an article if invention resides both in its utility and ornamental appearance."¹⁰⁶ There is no risk that a seller of goods or services would be shortcutting the patent system by the use of QuiRCs. As previously mentioned, QR Code is free of any licenses, already patented, and available for free use in the public domain. Second, there is no danger that the use of QuiRCs would create unfair competition between competitors. Competitors are free to use QuiRCs as well. QuiRCs also have a positive, albeit mild, deterrence effect. Therefore, public policy considerations indicate QuiRCs are not functional.

¹⁰⁴ Cooper Indus., Inc. v. Leatherman Tool Grp., Inc., 532 U.S. 424 (2001).

¹⁰⁵ Qualitex Co. v. Jacobsen Prods. Co., 514 U.S. 159, 164–65 (1995).

¹⁰⁶ *A Guide to Filing a Design Patent Application, The Difference Between Design and Utility Patents*, UNITED STATES PATENT AND TRADEMARK OFFICE, <http://www.uspto.gov/web/offices/pac/design/definition.html> (last updated Nov. 16, 2003).

V. CONCLUSION

With the rapid increase in business and consumer use of QR Code technology, it is only a matter of time until creative companies tap the full potential of QuiRCs and adopt them wholesale. When that time comes, the USPTO and the federal courts will be forced to confront a host of legal issues. As demonstrated, where QR Code images suffer from being both merely informational and merely ornamental, integrated and overlaid QuiRCs do not. Due to their transformative unitary nature, these QuiRCs offer consumers and businesses a more effective means to find one another, while simultaneously discouraging infringement. As useful and beneficial as these QuiRCs are, they are not functional within the meaning of the Lanham Act. Ultimately, this article suggests that as QuiRCs make their inevitable way towards our trademark system the USPTO and federal courts should embrace them.