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“The IP Implications of VR/AR/MR”

CLE Paper

For more analysis on these and related points, see my 2015 book Augmented Reality Law, Privacy, and Ethics and my Augmented Legality® blog at Wassom.com.

Introduction

Intellectual property laws protect ideas, creative expression, commercial goodwill, and other intangible concepts. Although they cannot be seen or touched, these concepts have become some of the most valuable assets in our contemporary, knowledge-driven economy. They will remain just as important, if not more so, in a world with ubiquitous augmented reality.

Patents

Patent Protection in AR Inventions

Tangible, consumer-level AR applications have only recently begun to emerge, because we have only recently devised the hardware and software required to make them commercially feasible. Many of these developments, however, have been anticipated for quite some time, which means that many creative minds have already had plenty of time in which to obtain patents on AR-related inventions.

On July 7, 2011, the USPTO published Apple’s patent application US 2011/0164163 A1, for “Synchronized, Interactive Augmented Reality Displays for Multifunction Devices.”¹ This news, and the accompanying drawings depicting AR at work on an iPad, caused quite a stir in
the blogosphere and among AR enthusiasts, who took it as an indication that the era of mass-market AR was finally about to begin.

But AR has been in the process of “emerging” for years now—plenty long enough for all sorts of companies and inventors to get their ideas registered with the USPTO. These registered inventions include augmented tattoos, advertising on flying footballs, and adding virtual displays to live sporting events.

There is, of course, still plenty of room for innovation in the augmented reality field—just not quite as much room as some might assume. As of Dec. 10, 2011, a search for “augmented reality” in the Google Patents search engine returned “about 11,100 hits.” In January 2014, that number was up to 160,000.

Moreover, as anyone reading the tech headlines in the past decade realizes, patent litigation is all the rage nowadays. Anyone and everyone with a patent, it seems, is suing or being sued by a competitor with a similar patent or product. In 2012, over 5,000 patent infringement lawsuits were reportedly filed—a spike of over 30% from the year before—and this trend “shows no signs of cooling off, either as a means of generating revenue or of protecting competitive advantage.”

This is especially true with respect to smartphones and tablets—precisely the platforms on which consumer AR is just starting to take off. Therefore, we can expect patent litigation to be one of the first areas in which AR-related legal disputes arise in earnest.

The First AR Patent Infringement Case: Tomita v. Nintendo

As ominous as the trends of patent litigation can appear from a macro level, the facts of any particular case often seem entirely ordinary, even mundane. That was the case with the earliest recorded litigation activity related to AR.
On June 26, 2012, a judge of the U.S. District Court for the Southern District of New York issued what appears to be the first substantive decision in an AR-related patent infringement case. The device in question was one of the most popular AR-capable units then on the market: the Nintendo 3DS portable game console. Although the case had been first filed in June 2011, this was the first substantive decision from the court on the merits of the case, and the first to mention AR.

Plaintiffs ("Tomita") were the owners of U.S. Patent No. 7,417,664, issued in August 2008 and titled “Stereoscopic image picking up and display system based upon optical axes cross-point information.” As described by the court, “the ‘664 patent attempts ‘to provide a stereoscopic video image pick-up and display system which is capable of providing the stereoscopic video image having natural stereopsis even if the video image producing and playback conditions are different.’” 5

Tomita alleged that the 3DS infringes this patent. The June 26, 2012 opinion rejected Nintendo’s motion to dismiss the case. The court determined instead that there was enough evidence to allow the case to proceed to a jury.

Most of the discussion in the parties’ arguments and the court’s opinion focuses on how the 3DS’s cameras work to capture 3D images. The patent describes a “means for measuring cross-point (CP) information on the CP of optical axes of [the] pickup means.” The two cameras built into the 3DS are arranged in parallel, but the parties and their experts disagreed over whether the optical axes of these cameras would nevertheless intersect. The court agreed with Tomita that they would.

In addition, as described by the court and the parties, the system described by ‘664 patent includes a “manual entry unit” through which the viewer can change “the operation condition of
the display control circuit.” The 3DS has at least two modes: “Camera” mode and “AR games” mode. And it has two means of adjusting the three-dimensional image it displays: a circle pad and a “3D depth slider.” In both the camera application and the AR games application, the 3DS’s 3D depth slider only changes the display from a two-dimensional image (turning the three-dimensional display “off”) to a three-dimensional one (turning the three-dimensional display “on”). The dispute over this feature was whether, by turning three-dimensional viewing on or off, the 3D depth slider operates as a “manual entry unit” within the offset presetting means’ structure. To infringe the ‘664 patent, “the relevant structure” in the 3DS must “perform the identical function recited in the claim.”

The court found that “a reasonable jury could find that the 3DS’s 3D depth slider constitutes a component of the offset presetting means’ structure,” performing one aspect of the identical function recited in the claim. “Specifically,” it continued, the ‘664 patent notes that the “manual entry unit may be [a] switch. . . which is actuated by the viewer depending upon user’s preferences for changing the operation conditions of the display control circuit.” Both parties acknowledge that the 3D depth slider functions in the AR Games application as a “switch,” allowing the user to exercise control over the display control circuit’s operation conditions. Specifically, the 3D depth slider allows the viewer to determine whether the display circuit presents an offset at all. Thus, a reasonable jury could find that the manual entry unit, along with the circuits described in the ‘664 patent, performs the function of “offsetting and displaying” video images by allowing the user to determine whether the circuits will display an offset.

On this basis, the court allowed Tomita to pursue its claim that, because the unit’s 3D depth adjustment switch allows users to adjust the 3D image they see while in “AR Games” mode, the 3DS allegedly infringes the ‘664 patent.

On March 13, 2013, the jury returned a verdict in Tomita’s favor, and awarded it $30.2 million in damages—although the judge in the case had decided as a matter of law that Nintendo had not infringed the patent willfully. Both sides filed motions seeking to adjust these rulings.
Nintendo prevailed on one important argument—the amount of the damages award, which was based on the estimated value of a reasonable royalty payment by Nintendo to Tomita for use of the technology. The jury had apparently based its figures on the testimony of Tomita’s expert, who used the “entire market value” of the 3DS as the royalty base for calculating the reasonable royalty rate. This led the jury to a rate of just under 3% of the 3DS’s sale price.

In an August 14, 2013 opinion, the judge found this rate “intrinsically excessive,” for a number of reasons. For one thing, the 3DS itself was not profitable. Nintendo makes its money on the sale of 3DS games, but the evidence showed that “the vast majority of games designed for the 3DS do not require or even utilize the technology covered by the ‘664 patent.” It also struck the judge as unfair to consider the entire value of the 3DS game market when “the ‘664 patent’s technology was used only in two features — the 3D camera and the AR games application – and thus was in some sense ancillary to the core functionality of the 3DS as a gaming system.”

In other words, the court found as a matter of law that any AR functionality in the 3DS is an add-on, rather than a core feature, of the console.

As a result, the judge gave Tomita two choices—either accept a 50% cut in the jury’s award, reducing it to $15.1 million, or else conduct a whole new trial on damages. The legal term of art for this ruling is “remittur.”

I have reproduced the details of this litigation to demonstrate what patent infringement litigation looks like. Obviously, it hinges on the tiniest of details in the subject inventions and challenged products. Moreover, the ultimate decisions will be rendered by a judge or jury who is unlikely to be knowledgeable in the art, so much depends on how well the issues are explained to them. And in the end, the amount of money at stake in even the most inconsequential AR patents may be significant.
The First Augmented Patent Troll: Lennon Image Technologies

Lennon is what the patent world calls a “nonpracticing entity,” or NPE—more commonly referred to as a “patent troll.” Such companies own patent rights, but do not use them to make or do anything; rather, their only business is to sue other companies for (allegedly) infringing the patents. The patent troll phenomenon is one of the primary drivers behind the explosion in patent infringement litigation; one report found NPEs responsible for more than half of the patent lawsuits file in 2012, compared to less than a quarter in 2007. Yet only 16% of the cases actually decided by a court were filed by NPEs, “reveal[ing] a much higher tendency for NPE actions to be resolved without a formal court decision.” This corresponds to the anecdotal experience that most companies have with patent trolls; they leverage the threat of infringement liability and the steep expense of patent litigation to coerce an early, favorable settlement out of those they sue.

On July 16, 2012, Lennon filed six separate patent infringement lawsuits, all in the U.S. District Court for Delaware. Each is nearly identical to the other, and is based on the same patent: US 6,624,843 B2, issued Sep. 23, 2003. The title of the patent is “Customer Image Capture and Use Thereof in a Retailing System.” The abstract describes an AR “virtual try-on” experience very similar to what we see on websites from Ditto and several other retailers:

In a retailing system, an image capture system is provided and used to capture reference images of models wearing apparel items. At a retailer’s place of business, an image capture system substantially identical to that used to capture the reference images is also provided. A customer has his or her image captured by the image capture system at the retailer’s place of business. Subsequently, when the customer is in close proximity to an image display area within the retailer’s place of business, a composite image comprising the customer’s captured image and one of the reference images may be provided. The composite image may comprise full motion video or still images. In this manner, the customer is given the opportunity to virtually assess the selected merchandise without actually having to try on the apparel.
Of course, one important difference between this abstract and what these defendants do is that current virtual fitting experiences happen online, rather than “within the retailer’s place of business.” One wonders if that will make a difference in the litigation.

Each of Lennon’s complaints specifies a specific website using analogous virtual-fitting technology. Among these is Mattel’s BarbieDreamCloset.com, which an AR company named Zugara designed and launched. This was the only complained-of site that remained active in the days immediately following Lennon’s suits, perhaps because Zugara had recently obtained its own patent\textsuperscript{13} for similar technology. Lennon’s other lawsuits targeted jewelry-fitting sites run by Boucheron, Forervermark, De Beers, and Tatler Magazine; a watch-fitting site run by Swatch’s Tissot brand; and Skullcandy’s headphone-fitting site. On each of these sites, the “virtual try-on” features were removed shortly after the companies behind them were sued.

This illustrates another tactic commonly employed by patent trolls—suing the end user of the technology, rather than the software company that designed the website.\textsuperscript{14} In each of these cases, the AR technology behind the virtual try-on component of the website was supplied by a relatively small software company, yet only the big-name brands publicly using the sites were named. The reason is simple: economics. Not only are these brands more likely to be able to afford to pay a monetary settlement, but they also have far less motivation to fight back against the lawsuit. To them, after all, these AR features were merely interesting but one-off promotional experiments. Losing them prematurely was inconvenient, but hardly significant to the retailers’ overall bottom line. It made much more economic sense to pay an early settlement than to invest in defending costly litigation over another company’s technology.

The AR companies, however, rely on the software they sell for their very existence, and are generally more likely to be start-ups without the liquid funding necessary to defend such
litigation. Some of them may have settled, but if they could afford to fight, they would have been much more likely to resist the litigation to the bitter end and potentially defeat Lennon’s asserted patent rights. None of that would have made economic sense for Lennon. So instead, Lennon delivered these companies a double whammy—not only did the lawsuits put an end to the AR companies’ existing customer relationships, but they also likely scared away many potential clients who would not risk patent litigation.

And, of course, once the first round of defendants pay their settlement money, this gives the trolls cash on hand to fund another round of lawsuits. That is exactly what Lennon did in March 2013, filing six more identical lawsuits, this time in the U.S. District Court for the Eastern District of Texas. These lawsuits name Macys Inc., Bloomingdales, Fraimz LLC, Lumondi Inc., Luxottica Retail North America Inc., Safilo America Inc., and Tacori Enterprises. Again, the allegations revolve around “virtual try-on” and “magic dressing room” technology used by these retailers to give customers at home a chance to see on their computers in three dimensions what a product would look like on them. Just as happened after the prior round of lawsuits, the defendants appear to have deactivated the features on their websites as a precaution. Whether they launch again will likely depend on how the lawsuits resolve.

This sort of litigation activity is worrisome for the nascent augmented reality industry, which is still made of almost exclusively of small, ambitious start-ups. “Magic mirror” and “virtual dressing room” technology has been a staple of early AR innovations, and (as these lawsuits demonstrate) has really begun to catch on with retailers and customers alike. On the other hand, developments like this were easy to anticipate. As AR starts to attract real money, we can expect it to give rise to at least as many patent fights as the mobile phone industry is currently dealing with.
Ditto became a poster child for this phenomenon. In a tragic twist of fate, in addition to its dispute with 1-800-Contacts, Ditto was also one of the companies sued by Lennon. This was one of the lawsuits studied in a subsequent study by Catherine Tucker, a professor of marketing at MIT’s Sloan School of Business, that attempted to quantify the economic impact of patent troll litigation on the economy. According to Tucker’s study, even though Ditto eventually resolved Lennon’s lawsuit, “the company was still being valued at $3 to $4 million less than it would be otherwise, and it was forced to lay off four of its 15 employees to pay legal expenses.”\textsuperscript{15} In total, Tucker estimated that lawsuits the most active patent trolls cost the U.S. economy more than $21 billion. Let us hope that litigation like this does not unnecessarily deter developers from pushing AR technology forward.\textsuperscript{16}

**Trademarks**

Although AR-related patent infringement has already begun, it is in the area of trademark law where I expect AR to begin breaking new ground in intellectual property law. Hundreds of innovators have already anticipated and sought patent protection for AR inventions, but the technology is only now entering into the consciousness of consumer-level retailers and marketing professionals.

**Keyword Advertising in the Augmented Medium**

The growth of the commercial internet over the past 20 years has been funded predominately by advertising revenue. We as consumers get to browse free content on millions of web pages and on various search engines in large part because advertisers have paid good money to insert their ad next to whatever we’re reading. Odds are good that this funding model will continue well into the future.
The primary purpose of all commercial advertising is to draw potential customers to the advertised business or product, and away from its competitors. Moreover, comparative advertisements—those that compare a product to its competition—have been around for decades. Courts have had opportunities to draw some basic lines between what is okay to say in such advertisements, and what is “deceptive” advertising. In a nutshell, it is permissible to describe your competitor’s goods and compare one product to another, but you cannot say things that are likely to confuse customers into believing that you are your competitor. You cannot say something materially false or misleading about your competitor or your own product. And you cannot do anything to confuse reasonable consumers into mistakenly believing there’s some sort of connection, sponsorship, affiliation, or endorsement between your companies or products.

These boundaries are not always easy to apply, however, and there are several contexts in which the courts have not been able to agree on how they apply. For example, the battle over “keyword advertising”—i.e., using an algorithm to display a “sponsored” ad whenever a user types a given term into a search engine—is still being fought, more than a decade after the practice began.

Google explained its own keyword advertising system, called “AdWords,” this way:

Google AdWords is Google’s advertising program. AdWords lets you create simple, effective ads and display them to people already searching online for information related to your business. So how is it possible to show your ads only to the most relevant audiences? The answer is keyword-based advertising.

When a searcher visits Google and enters a query — say, good beginner guitars — Google displays a variety of relevant search results, such as links to articles containing guitar purchasing advice, or websites dedicated to novice musicians. Google also displays AdWords ads that link to online businesses selling guitars, music lessons, or other products and services related to the query.
For example, imagine that you own a music store carrying a large selection of guitars. You could sign up for an AdWords account and create ads for entry-level guitars in your inventory. For each of your ads, you might select keywords (single words or phrases related to your ad’s message) such as *beginner guitars* or *entry-level guitars.*

Company A potentially implicates trademark law when it purchases a search term that is also a trademark belonging to Company B. The fact that Company A’s advertising appears when a user searches for Company B’s trademark raises questions of whether Company A is “using” that trademark “in commerce” (most courts have said yes), and whether this use creates a likelihood that consumers will be confused regarding the potential association or sponsorship between the two companies or as to the source of Company B’s goods or services.

Answers to this latter question have been mixed. Some courts over the past decade have found that ads triggered by a trademarked keyword search cause a likelihood of confusion—especially when the resulting ad also incorporates the trademarked term, but even occasionally when it does not. On the other hand, several recent cases have rejected the proposition that merely purchasing a competitor’s trademark as a search term in and of itself creates confusion. This may suggest that the potential for confusion in many situations has decreased as online sponsored ads have become more commonplace.

Where the potential for confusion exists, though, the question of who is responsible for it also remains open. Rosetta Stone is one of several companies to sue a search engine for allowing competitors to use its marks in keyword ads. As most other courts had done in similar cases, the trial court dismissed the suit as a matter of law, finding that Rosetta Stone could not prove that the search engine was liable. But in April 2012, the U.S. Court of Appeals for the Fourth Circuit overturned that holding, finding it possible that the search engine’s policy on the use of keywords in sponsored ads could amount to direct infringement, contributory infringement, or
trademark dilution. Other cases have likewise gone either way on liability depending on how the particular trademark at issue appeared in the header or text of a sponsored ad. But it is fascinating that, even as recently as 2013, one study found that more than 40% of search engine users were not able to distinguish sponsored ads from organic search results, suggesting that the potential for confusion remains even more than a decade after this advertising model was adopted.

Augmented reality will take this jostling for position between advertisers to a new level. We already see this happening in TV broadcasts of certain sports games, in which “digital billboard replacement” technology is used to superimpose digital ads on top of the ones that are physically present in the stadium. The Public Ad Project and the Heavy Projects have demonstrated similar concepts on mobile devices by sponsoring campaigns that replace physical billboards with artistic images when viewed through a mobile device.

But what happens when AR eyewear becomes ubiquitous, and digital ad replacement becomes commonplace? Will advertisers pay AR service providers for the ability to superimpose their ads on top of what consumers see? If the past 20 years of e-commerce is any indication, then the answer is “absolutely”—and in a number of creative ways. So, for example, a business may pay to superimpose its logo on top of signs advertising a competitor’s products, completely blocking the physical ad from view. Or, the mere act of looking at Company A’s ad through your AR eyewear may trigger a virtual ad for Company B to pop up somewhere else in your field of vision. The example of this that I typically give is of looking at a McDonald’s sign through your digital device and instantly seeing a Burger King advertisement superimposed upon it.

Similarly, your decision to look at something may prompt suggestions for goods and services relating to the thing you’re looking at. Self-described “pop culture hacker” Jonathan
McIntosh captures all of these ideas in his parody video “ADmented Reality.” The video depicts a world in which every glance triggers another advertisement in one’s digital eyewear, to the point where reality itself become obscured in a sea of sponsored content.

Other commentators have also foreseen augmented advertising and the legal issues they will raise. John C. Havens discussed them and some of the legal issues they raise in his insightful piece for Mashable called *Who Owns the Advertising Space in an Augmented Reality?* Noting that Google had already applied for a patent for digitally replacing physical ads within the Street View feature of Google Maps, Havens wrote that “the importance of virtual real estate may quickly supplant actual signage for advertisers. This is especially true when virtual signage could be switched dynamically for individual eye traffic depending on a viewer’s preferences.” He went on to quote Gabe Greenberg, director of social and emerging media at Microsoft, as saying that, “if the experience presents the ads in a way that makes sense for the augmented reality experience and the user’s intention, this could be a powerful advertising tool for tomorrow’s marketplace.”

These predictions are persuasive. I take issue with the idea of applying the law of real property to this scenario. That is not necessarily the end of the conversation, however, because the laws governing trademarks and unfair competition are not about property ownership. They are aimed at protecting commercial goodwill and avoiding confusion among consumers about the relationships between different products and businesses. Sponsored ads on search engines, for example, do not do anything to obscure the results displayed on a search engine; they are merely displayed adjacent to that content. When Company A displays a sponsored ad next to Company B’s trademark, it is not interfering with Company B’s ownership of that mark. But—depending on the content of the ad, how it is displayed, and how it comes to appear on the
page—Company A might be misleading consumers into believing there is some relationship between Company A and that trademark. This potential for confusion is what injures Company B and triggers the protections of trademark law.

The potential remains, therefore, that causing Company A’s augmented ad to appear in a certain physical place—for example, on top of or next to Company B’s physical billboard, place of business, or trademarked logo—may create a likelihood of confusion in the minds of consumers. It will be possible, therefore, for augmented advertising to infringe trademark rights.

At least in the short term, that result seems unlikely, if only because of the limited context in which AR experiences are currently available. Today, having an AR experience requires a user to download and open a particular, branded app on their device. These apps also usually offer only a very limited range of options in a predetermined number of situations. So, for example, as of this writing, the only way a user will see a Burger King ad atop the Golden Arches would be by using an app (or user-generated layer with an app like Junaio, Aurasma or Layar) designed specifically for that purpose. In this situation, a trademark owner could object to the way that its trademark is being “used in commerce,” and the way in which the app is portrayed could conceivably be confusing. Assuming that the user understands where the app is coming from, however, one can hardly expect the user to be surprised or confused by what they see through it.

The potential for confusion will come within digital services in which consumers expect to see advertising content from a variety of authentic sources within a viewpoint-neutral environment. One does not approach billboards, telephone directories, television commercial breaks, or internet banner ads as such with a predetermined expectation of the message those
media will contain. Instead, one bases their determination about the source of a particular advertisement within those media based on the content and context of the ad itself.

For example, merely opening my internet browser tells me almost nothing about what sort of banner advertising I might encounter; I know by virtue of having surfed the internet that I will be served such ads by any random company that may have paid to place them there. But if I’m discerning, I will notice that certain types of websites are more likely to serve up advertisements from a particular point of view, and that the behavioral advertising cookies in my browser will sometimes deliver ads based on my prior online activity. Similarly, to the extent that anyone still reads telephone directories, they ought to expect to see advertisements for local businesses (especially personal injury lawyers) rather than for those located elsewhere.

When we have multi-user, viewpoint-neutral augmented reality browsers is when we should expect to see allegations of trademark infringement arise in earnest. The existing ability to digitally replace physical signs within mapping programs such as Bing and Google Maps offers a glimpse of what such a world will be like. Ubiquitous, always-on AR will feel very much like moving around within a three-dimensional version of those contemporary mapping programs. Once we find ourselves there, what expectations will we have about the advertising we see? More than likely, we will realize that at least some of the augmented content we encounter is provided by the service provider itself (whichever company that turns out to be), while some is triggered by our personal activities and preferences. Just as with behavioral advertisements on the internet today, no two users of the service are likely to encounter all of the same ads.

Unlike the current web, however, augmented ads will necessarily correspond to physical places. It will be those relationships between digital and physical content that raise new and
unique questions of when a likelihood of confusion may exist. Sticking with the fast food example, then, will it be permissible in this context for Burger King to deliver users an ad every time they look in the direction of a McDonald’s restaurant or sign? If so, will the law of trademarks and unfair competition place limits on how obtrusive these ads can be? In other words, may they appear only in the periphery of a user’s vision? May they hover in space next to the Golden Arches, or even be superimposed over them? Moreover, the degree to which a service provider makes these decisions—or allows users to adjust such settings—could well determine whether the service provider may be held jointly liable for any resulting infringement.

Courts deciding AR advertising cases in these contexts will apply the lessons learned in pre-existing media, including the reasoning of the search engine keyword cases with which today’s courts are wrestling. Just as search engine algorithms use particular terms as keywords that prompt an ad to appear, so too can the physical objects that prompt similar virtual ads in AR devices be thought of as “keywords.” Whether it’s a billboard, logo, or some other trigger, any object that prompts an algorithm to display an ad is performing the same function that keywords do today.

A determination of whether that ad creates a likelihood of confusion will depend on how the likelihood of confusion factors apply to the particular case at hand. As with existing case law on sponsored advertising, moreover, courts are likely to be all over the map in how they decide such cases at first, until the model becomes more commonplace and a consensus forms about what boundaries it is fair to expect advertisers to observe in this space.

**Fair Use and Free Speech**

Trademark ownership is not a complete monopoly on any and all uses of the word or symbol that forms the trademark. Although trademark rights are broad, they exist only to protect
consumers from confusion and to safeguard business’s goodwill. As restrictions on the rights of others’ speech, moreover, trademark laws always exist in an uneasy tension with the First Amendment to the United States Constitution. “Because overextension of Lanham Act restrictions in the area of [artistic expression] might intrude on First Amendment values,” wrote the Second Circuit Court of Appeals in the frequently quoted opinion Rogers v. Grimaldi, “[courts] construe the Act narrowly to avoid such a conflict.” That case stands for the proposition that artists can freely refer to trademarked goods and services by name in the titles of their songs, films, and other creative expressions. Such issues will inevitably arise in the context of augmented works just as they do elsewhere. There are at least a couple situations, however, in which augmented content will stretch these legal principles in new ways.

**Incorporating Third-Party Trademarks Into Augmented Content**

Trademarks frequently show up inside of artistic works—especially in video games that attempt to create a realistic world in which players can immerse themselves. For the most part, courts uphold these uses as free speech, due in no small part to the United States Supreme Court’s decision in 2011 that video games deserve First Amendment protection.

Games and other immersive augmented reality environments will attempt to create similarly realistic digital worlds. In so doing, there will inevitably be some AR applications that recreate actual trademarks in the name of authenticity.

The one fundamental difference between the AR medium and traditional digital expression, however, is that AR content is inherently tied to real physical locations. This distinction adds a layer of risk to replicating someone else’s trademark in AR, because associating that trademark with a real place or object could, in many foreseeable circumstances, heighten the likelihood that someone will draw a connection between the trademark and the
physical place or object with which it is digitally associated. For example, players may see the
mark digitally displayed on the wall of a business not associated with the trademark owner, or
the mark may appear (wither physically or digitally) on a real object designed to serve as a target
within the AR app. In either circumstance, the mark is no longer confined within a virtual,
fictional word created by the artist, but instead is being associated with real objects or places that
may be businesses or products with which the trademark owner does not wish to be associated.

This could, in some cases, satisfy enough of the likelihood of confusion factors to add up
to a real headache for both the trademark owner and the designer of the AR environment. Of
course, it is equally possible—again, depending on the circumstances of the particular case—that
the choice to make that particular association between trademark and physical place or thing
could, in and of itself, be a creatively expressive decision that merits First Amendment
protection. Regardless of result, however, use of trademarks within AR content will inherently
raise an additional dimension of legal complexity beyond that found in other digital works.

Unauthorized Augmentation of Trademarks

For the first few years in which AR has been used in advertising, the technology required
to create the experience has been more or less limited to corporations, agencies and startups with
substantial budgets, sophisticated software and coding expertise. Even the first publicly
accessible tools for creating user-generated AR contents have been slow to catch on, and
required a significant learning curve. As this book nears completion during 2014, however, more
user-friendly and robust creative tools are hitting the public market, democratizing AR even
further. Before long, user-generated commentary is likely to be as ubiquitous in augmented form
as video commentary currently is on YouTube.
When the subject matter of user-generated AR content relates to a particular brand, no object will be more tempting to serve as the trigger for that content than the very trademark that the brand owner uses to represent its goodwill to the public. Indeed, this has already happened at least once. In 2010, Professor Mark Skwarek (of the NYU Polytechnic School of Engineering and, most recently, the creative lead behind the Kickstarter-funded app PlayAR) released the iPhone app “The Leak in Your Home Town.” Through this app, one could view a physical sign bearing the BP logo at a local gas station, and see superimposed on that logo a digital broken pipe spewing oil, exactly like the one responsible for the then-current spill in the Gulf of Mexico.

These existing media also teach us that a sizeable portion of that commentary will be directed back toward the brands who advertise to us. For almost as long as companies have been setting up shop at <Company.com>, there have been detractors posting vitriol at <CompanySucks.com>. In today’s social media, popular sites such as Ripoff Report and Pissed Consumer base their entire business models on naming and shaming commercial brands.

Although some early judicial decisions blocked these sites’ ability to reproduce the trademarks of the companies they criticize, most courts and other trademark dispute resolution organizations recognize such content as fair commentary that trademark holders cannot prevent. For example, in 2011, the United States District Court for the Eastern District of New York rejected a trademark infringement lawsuit that challenged the use of a reviewed company’s trademarks in the sub-URLs, metadata, and text of PissedConsumer.com. Despite copious use of the plaintiff’s marks throughout the website, the court found it implausible that any reasonable person would believe the site’s critical commentary to be sponsored by or associated with the trademark owner.
These are the types of precedents courts will look to when trademark owners begin to grapple with augmented repurposing of trademarks. They provide a strong basis for predicting that using corporate trademarks as triggers for AR content that criticizes the trademark owner will, in many cases, be permissible under U.S. trademark law. This conclusion is bolstered by considering the similarity between AR targets and hyperlinks.

Of course, every rule has its exception. The circumstances of each situation will be different, and those differences will sometimes make a material impact on the outcome of a trademark infringement analysis. In cases where the augmented content that one associates with another’s trademark is more akin to the competitive advertising discussed above than to critical consumer speech, the question of whether that content causes a likelihood of confusion will be much closer. Nor has this discussion taken into account the concept of trademark dilution, a cause of action that challenges the use of a famous mark in ways that diminishes its distinctiveness or tarnishes its goodwill, even in ways that do not cause a likelihood of confusion. The application of that doctrine to AR content will also vary widely depending on the circumstances.

What does seem clear, however, is that policing the use of trademarks in augmented reality will be significantly more complex than it first appears.

**Copyright**

AR-related copyright issues may not lead to litigation as quickly as patent and trademark disputes will. In the long run, however, I believe that AR is likely to raise a broader range of copyright matters than any other type of intellectual property issue. After all, the realm of copyright law is creative expression, an activity that (unlike innovation or the creation of commercial goodwill) is potentially available to all. AR is a medium in which all manner of creative ideas will be expressed.
Obtaining Copyrights

Fixation in a Tangible Medium

Nothing inherent to the AR medium will prevent augmented content from receiving copyright protection. To qualify for copyright protection, the work must be “fixed in a tangible medium,” meaning it must have some definite, perceptible form rather than just being evanescent sounds or an inchoate conception floating in someone’s head. This requirement provides a measure of objectivity in the application of copyright law, without which society would not be getting anything in exchange for the legal monopoly it grants to a copyright owner. That said, this “fixation” requirement is a loose one. Storing an image in software form is enough; even projecting an image digitally onto a screen or loading software into temporary random-access memory is sufficient.31 This is what allows digital representations to be copyright-protected in conventional two-dimensional media, and the same principle will apply when the same content is visualized by three-dimensional, augmented means. Even though augmented images are not actually in the physical environments in which they are made to appear, they nevertheless reside in a digital intermediary that is sufficiently “tangible”—such as on the lens of a head-mounted mobile device or in a cloud-based computer server. The “tangible fixation” element requires only that the works be stored in a media “from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”32 The specific type of device used to perceive the content is irrelevant.

A decision issued in September 2013 by the U.S. District Court for the Southern District of New York gives a preview of how AR copyright cases are likely to look. In Firesabre Consulting LLC v. Sheehy,33 middle school technology teacher Cindy Sheehy purchased a set of islands within the virtual world Second Life for use in teaching students. Each island in the
simulation starts off as a flat green rectangle, and the user can then change the topography and landscape of the island (known as “terraforming”) using a series of interactive tools provided by Linden. Firesabre—a consulting firm specializing in the educational use of virtual worlds—performed various terraforming services for Sheehy on those islands, including a train station, a café, music shops, and a volcano. When the relationship between the parties broke down, Firesabre claimed copyright ownership in all of the terraformed content. Allegedly, Sheehy continued to display the content within Second Life and copied some of it to another virtual world, all of which Firesabre asserted to be copyright infringement.

The court denied Sheehy’s motion for judgment as a matter of law, holding instead that Firesabre had alleged plausible allegations of infringement. First, the court decided that the works had been “fixed in a tangible medium” because they existed on Linden’s data servers and were visible within Second Life for a sufficient period of time to be perceived by the students who interacted with the islands.

Second, the court saw no reason to deny copyright protection to the terraformed works simply because others could come along later and modify them. “In this regard,” the judge wrote, “I see no distinction between the terraforming designs and a drawing created on a chalkboard or a sculpture created out of moldable clay. That someone else could come along and, with or without permission, alter the original piece of art does not mean the art was too transitory to be copyrighted in the first place.” Therefore, even dynamic AR content will spark copyright law controversies.

**Originality and the Idea/Expression Dichotomy**

Not every expressive work is automatically eligible for copyright protection. Both the U.S. Constitution and the Copyright Act require that the expression within the work be original
to its author.\textsuperscript{35} Originality is therefore said to be the “\textit{sine qua non} of copyright.” As explained by the U.S. Supreme Court, the word “original” in this context does not mean novelty (as is required by patent law), but rather that the work was independently created by the author as opposed to copied from other works, and that it possess at least some minimal degree of creativity.\textsuperscript{36} The author “must have made some contribution to the work which is irreducibly his own.”\textsuperscript{37}

A copyright is not a reward for mere effort or toil. A work that merely copies or compiles facts or the expression of others—no matter how much skill and effort that copying or compilation may require—cannot be copyrighted. This “idea/expression dichotomy” is the heart and soul of copyright law. That does not mean, however, that the expression must have any degree of artistic or aesthetic merit. As the U.S. Supreme Court held more than a hundred years ago, even “a very modest grade of art has in it something irreducible, which is one man’s alone. That something he may copyright.”\textsuperscript{38} All that is needed is some creative spark, “no matter how crude, humble, or obvious.”\textsuperscript{39}

The application of these principles to augmented reality were foreshadowed in the 2008 case \textit{Meshwerks v. Toyota Motors Sales USA, Inc.,}\textsuperscript{40} which applied the age-old principle of originality to the relatively new technology: digital modeling. In 2003, Toyota and its marketing partners decided to begin creating digital models of Toyota’s vehicles for use on Toyota’s website and in various other media. This approach offered significant cost savings over the prior method of obtaining vehicle images, which required a new photo shoot of entire fleets of vehicles each time even the smallest design element changed. Digital images, by contrast, can be edited with a few mouse clicks.
Toyota’s marketing partners subcontracted with a company called Meshwerks to conduct the first two initial steps of the project—digitization and modeling. Meshwerks began this process by collecting hundreds of physical data points from the vehicles to be portrayed. Based on these measurements, modeling software (such as Maya) generated a digital “wire frame” image. Meshwerks personnel then fine-tuned the lines on screen to resemble each vehicle as closely as possible. According to Meshwerks, approximately 90 percent of the data points contained in each final model were adjusted by a person. Some areas of detail—including the wheels, headlights, door handles, and Toyota emblem—could not be mechanically measured and instead were added by hand.

When Toyota and its partners later used these wire frame images in ways to which Meshwerks objected, Meshwerks sued, claiming that it owned a copyright in the images. Both the district court and the court of appeals, however, disagreed, holding that the wire frame models were merely copies of Toyota’s products, and not sufficiently original to warrant copyright protection. The courts stressed that, despite the significant amount of effort Meshwerks invested in creating the images, it had never intended to create something original. To the contrary, its express intention was to replicate, as exactly as possible, the image of certain Toyota vehicles. That is the only way in which the images would have been useful to Toyota as substitutes for photographs of real vehicles.

Several other courts have likewise denied copyright protection in analogous cases, involving digital copies of physical facts and prior works of art. For example, in Sparaco v. Lawler, Matusky, Skelly, Engineers LLP, the court denied copyright protection to the elements of an architectural drawing that conveyed “the existing physical characteristics of the site, including its shape and dimensions, the grade contours, and the location of existing elements,
[because this portion] sets forth facts[, and] copyright does not bar the copying of such facts."42

Other cases have denied copyright protection to catalog illustrations of transmission parts “copied from photographs cut out of competitors’ catalogs;”43 and to high-quality photocopies of paintings.44 They have also denied protection to other examples of the “dimensional shifting” that Meshwerks did replicating a three-dimensional object in two dimensions. For example, courts have held that three-dimensional plastic toys45 and costumes46 based on pre-existing, two-dimensional cartoon characters were not original.

Anticipating the negative reaction to its decision that did, in fact, come from several sources, the Meshwerks court went out of its way to stress that “[d]igital modeling can be, surely is being, and no doubt increasingly will be used to create copyrightable expressions.”47 It even suggested “that digital models can be devised of Toyota cars with copyrightable features, whether by virtue of unique shading, lighting, angle, background scene, or other choices. The problem for Meshwerks in this particular case is simply that the uncontested facts reveal that it wasn’t involved in any such process, and indeed contracted to provide completely unadorned digital replicas of Toyota vehicles in a two-dimensional space.”48

Another example of the same issue is the recreation of real people. This is not hypothetical; there are already several companies publishing or working on augmented entertainment content that involves the replication of actual celebrities and historical figures. To the extent that these “characters” merely replicate the attributes of an actual person, they will not contain original, copyrightable content.

These cases illustrate the fine line between originality and reproduction for digital imitations of reality. Because AR content is meant to be perceived in conjunction with physical objects—often in a manner intended to create the illusion that the digital content is itself
physical—we will be more likely to find digital content that straddles this line in AR than we are in other digital contexts. This will be increasingly true as the technology improves, creating higher-resolution images and more stable displays. (The fact that eligibility for copyright protection would decrease as the quality of the image increases understandably strikes some as a perverse result, but it is entirely consistent with the purposes of copyright law, as courts have repeatedly explained.) This could result in augmented environments that intentionally bear slight, digitized differences from their real-life inspirations—such as, for example, the flora and buildings in the Second Life islands in the *Firesabre* case—solely for the purpose of preserving original expression and therefore copyright protection. In other cases, though, it will simply mean that content creators will need to rely on other compensation models to reward them for their effort.

There may also come a day when augmented digital objects are so utilitarian that we come to think of them as functional tools rather than expressive works. Consider, for example, the menu layouts of most word processing programs, or the graphics used to symbolize such functions as “power on/off,” “play,” and “pause.” If there were only one software program in existence that employed these arrangements and graphical works, they may well be considered copyrightable. In reality, however, they merely represent methods of organization that are commonplace and critical to the function of thousands of programs. Although there is some room for minute variations in how these user interfaces are expressed, that room is so narrow that such variances will not be considered sufficiently original for copyright protection. (This is what copyright law calls the “merger doctrine.” Both it and a related doctrine known as *scenes a faire*, or scenes which must be done, describes elements of an expression that are so common to its genre that they can no longer be considered original.) In an augmented world, we may come
to rely on all sorts of augmented user interface designs that then become standardized *scènes a faire*, thereby depriving them of the ability to be protected by copyright.

**Reproduction and Derivative Works**

The foregoing section imagined augmented environments so similar to real-world objects that they cannot be protected by copyright. Much more frequently, however, augmented expression will reproduce other, pre-existing creative works—and therefore infringe their copyrights.

**Duplicating Copyrighted Works**

In order to prove infringement, a copyright owner must show a “substantial similarity” between the copyrightable expression in the two works. When one work entirely copies another, that is an easy showing to make. Because so many AR applications will rely on video technology—particularly wearable devices with video recording capability—replicating copyrighted expression will always be a concern. After all, before digital eyewear is able to add digital content to our view of the world, the devices must first be able to know what we’re looking at.

One of the earliest examples of this concern occurred on January 18, 2014 in Columbus, Ohio. That’s when Federal agents from the Department of Homeland Security and local law enforcement officials allegedly yanked a customer out of a movie at AMC Theaters and interrogated him for several hours. His crime? Wearing Google Glass in a movie theater. The moviegoer was released only after demonstrating that he had not activated the recording function of the device during the film.49

Of course, this concern is by no means unique to wearable technology. In all likelihood, more than 90% of the other patrons in the theater were carrying smartphones, any one of which
had both video recording capability and enough battery power to last throughout the film—something Glass definitely does not have. There was no word on how many of them were interrogated. Nevertheless, the emerging revolution in wearable and Internet of Things technologies will certainly multiply the number of recording devices in the wild, and with that will come concerns that copyrighted works are being reproduced.

Other exact replicas of copyrighted works may be deliberate. In order to create an immersive augmented experience of a far-away place, for example—as some companies are already contemplating—the location will need to be exactly duplicated. That would likely include any copyrighted artwork that may be visible in the scene.

Even transferring a work from one medium to another, without more, is a mere reproduction (and hence infringement) of the copyrighted expression in the original. In Meshwerks, the thing being copied was not a copyrighted work, so the only consequence of this copying was that the new work lacked originality. Where the thing being copied is copyrighted, however, the reproduction is an infringement of that copyright. A U.S. Court of Appeals reached a very similar conclusion in Gaylord v. United States. There, the U.S. Postal Service issued a (two-dimensional) stamp depicting the (three-dimensional) Korean War Veterans Memorial in D.C. The creator of that sculpture successfully argued that the stamp merely copied his expression and reproduced it in a different medium.

Many artists will see AR as a medium in which they can “bring to life” existing works, especially those that currently only exist in two dimensions. If they are not careful to add their own expression to those recreations, however, a court may find them to be mere reproductions—infringements—of the copyright in the existing work.

**Adding to Existing Works**
Substantial similarity becomes more challenging to demonstrate when the copies are not exact. “[T]he copying [must be] quantitatively and qualitatively sufficient to support the legal conclusion that infringement (actionable copying) has occurred. The qualitative component concerns the copying of expression, rather than [non-protectable elements].... The quantitative component … must be more than ‘de minimis.’”51 Neither threshold is particularly high, but it is ultimately a subjective determination by the court.

The exclusive right to make “derivative works” is closely related to the idea of making an inexact, but substantially similar, reproduction. A derivative work is simply the addition of new expression to an existing work. In either case, a substantial portion of the original work exists in the new one, and the copyright owner’s rights have been infringed.

Since the very definition of “augment” is “to make greater,” augmented reality tools carry with them an inherent risk of creating derivative works. In its most straightforward form, visual AR involves overlaying digital data on top of physical things in order to add content to it or change its appearance.

A few examples capture the point:

- In the books *Daemon* and *Freedom™* by Daniel Suarez, a character nicknamed “The Burning Man” is memorialized by a statue. To the naked eye, it appears to be a conventional sculpture. Viewed through AR glasses, however, it become wreathed in three-dimensional flames, and studded with links to videos and tributes.

- As part of their 2011 Re+Public collaboration, the Heavy Projects and the PublicAdCampaign used AR to “filter” outdoor advertising and replace it with original street art. Looking through an AR app, outdoor commercial advertisements were overlaid with political or artistic messages. One such pointed message caused the image of
“Captain Barbossa” in the poster for *Pirates of the Caribbean 4* to morph before a user’s eyes into the face of Goldman Sachs CEO Lloyd Blankfein—conveying the artist’s message that he is the “real pirate.” Similar projects have superimposed digital content onto public murals in a form of augmented graffiti.

- Artist Amir Baradaran published a mobile app called “Italicizing Mona Lisa.” It is designed to display on your phone as you hold it up to a physical version of the iconic painting, creating the video illusion that the woman depicted there wraps herself in the Italian flag.

- “Projection mapping” uses three-dimensional video to animate stationary objects, usually the sides of buildings. When done well, projection mapping creates the powerful illusion of a building actually coming to life and moving in three dimensions.

Do these digital animations infringe the copyright of the physical art they augment?

In the typical “augmented substitution” scenario, in which content on a mobile screen simply overlays or complements the existing work, no infringement is likely. That is because the digital content is not actually doing anything to the original work. It is not making a copy of or altering the original. Even though the physical display acts as a trigger for the digital content, and even though the user’s mobile device causes the digital content to appear as if it exists in the real world in place of the original, it doesn’t actually exist there. It’s an effective illusion for creating an immersive experience, but it’s an illusion nonetheless. The content stays on the mobile screen, where it is a separate digital work that exists apart from the physical display.

But the question gets more complicated when the digital content actually makes the physical display appear to morph, as in the *Pirates of the Caribbean* and *Mona Lisa* examples. That is because, more likely than not, the AR software has already stored a reference copy of the
original and altered versions of the physical work. In other words, the programmer may have created a reproduction and a derivative of the physical work long before anyone uses the program to interact with the physical artwork. In order to create the illusion of movement in the physical painting, the AR programmer first reproduced the artwork, then created a digital alteration of it. That doesn’t raise any copyright concerns with public domain works like the Mona Lisa, but artists who digitally copy and morph copyrighted works are taking a risk.

Public Display and Performance

Public display and performance rights will also be at issue, in sometimes novel ways. Because most AR content will be experienced through individual mobile devices, one might presume those experiences to be private, rather than public, displays and performances. But AR programs that are aware of a user’s geolocation and that are designed to portray content as being physically manifest at that location challenge that presumption. For example, the British Museum released a mobile app designed to show users historical London photos in the actual, public location where they were taken. The photo itself never leaves the confines of the mobile device, but its display is triggered by the user’s physical location.

The same issue is presented by performances of location-aware video content. In 2011, tech news outlets reported on a man who had tattooed on his arm a target marker image used by a Nintendo 3DS game to represent an animated dragon. To the outside world, the tattoo was simply an uninteresting, approximately square-shaped symbol. When viewed through the 3DS device, however, it came to life as a three-dimensional, moving dragon.

Is that a “public” display and performance? And if so, has the app developer or end user acquired from the copyright owner the appropriate license rights for that public display? The case of the dragon tattoo seems likely to have exceeded whatever license may have come with
the 3DS device for displaying the content. Entire industries were forced to confront the limitations of their licenses when the internet became a new medium for republishing old content; AR will present similar challenges. User-generated content and social media will guarantee that works get publicly displayed in all sorts of unanticipated ways. Such questions will grow in importance as our surroundings become populated with triggers for all sorts of digital data.

**Fair Use**

Each of the foregoing examples of scenarios that may be considered copyright infringement are subject to affirmative defenses that may defeat the claim under particular circumstances. Among those is the defense of fair use. The Copyright Act identifies certain activities that are presumptively permissible under this doctrine—including “criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research.” This list of preferred activities derives directly from First Amendment case law, as each of these is an example of speech that contributes in one way or another to conversation about issues of public importance. It is a recognition that free speech rights ought to trump intellectual property protections in some circumstances.

Unlike most statutory exceptions to copyright infringement liability, however, whether any particular use is “fair” under any given set of circumstances can only be determined on a case-by-case basis by applying four subjective principles:

1. the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
2. the nature of the copyrighted work;
(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(4) the effect of the use upon the potential market for or value of the copyrighted work. 53

In practice, most fair use cases center on the first and fourth factors. Many courts tend to cast the first factor in terms of whether or not the challenged use somehow “transforms” the purpose or character of the original work. Some of the foregoing examples, such as the augmentation of the *Pirates of the Caribbean* poster, have an obvious political message, which is a presumptively preferred “purpose and character” of use. Another popular (although not always successful) line of argument is that a use “transforms” the original by “mashing” it up in a display with multiple other works. For example, *Cariou v. Prince* 54 involved relatively crude and simplistic physical augmentations made to photographs. The iconic example from that case involved a guitar and psychedelic face mask that the defendant slapped on top of the photo of a Jamaican man. The Second Circuit held that even these simple additions were sufficient to fairly transform the original. Similarly, in June 2014, the Second Circuit held that Google’s massive project to scan books into an enormous, searchable database was a fair, “transformative” use of the books, because the originals were not capable of being searched. If these decisions hold as precedent for future cases, they could open the door to all manner of digital augmentations to other works.

The fourth factor—which assesses the impact of the defendant’s work on the original’s commercial value—will be difficult to ascertain, especially in early cases. The medium of AR is so nascent, and there are so few business models based on it, that there will be very few reliable facts from which a court can draw a conclusion. This uncertainty will cut both ways. In some cases, the lack of evidence will lead a court to conclude that there is no market for the original in
the AR medium. Other courts, however, will reach the opposite conclusion, afraid that the
defendant’s use will have foreclosed the plaintiff’s ability to exploit the limitless possibilities
available for creating value in this yet-to-be-defined market.

The most significant drawback of the fair use defense is always its uncertainty. Someone
proposing to use another’s copyright work without permission cannot reliably determine ahead
of time whether the use is fair; instead, the decision may only be made by a judge or jury in
response to a copyright infringement lawsuit. Therefore, although fair use is commonly invoked
to justify all manner of uses, it is never a reliable safeguard.

1 U.S. Patent No. 8,400,548 (filed Jan. 5, 2010) available at
2 CHRIS BARRY, ET AL., 2013 PATENT LITIGATION STUDY: BIG CASES MAKE HEADLINES, WHILE PATENT CASES PROLIFERATE, available
for articles discussing articles discussing patent disputes between major phone and tablet makers.
5 Id. at *1.
6 Id. at *3.
7 Id. at *7.
14, 2013)
9 CHRIS BARRY, ET AL., PATENT LITIGATION STUDY, supra note 3, at 3.
10 Id. at 3
12 Id. at 1.
13 See U.S. Patent No. 8,711,175 (filed Aug. 12, 2011)
bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=8,275,590&OS=8,275,590&RS=8,275,590
15 Joe Mullin, “New study suggests patent trolls really are killing startups,” Ars Technica, June 11, 2014, available at
16 On Sept. 15, 2012, a request was filed with the U.S Patent & Trademark office to re-examine Lennon’s patent. As
of this writing, that request had not yet been acted on. Meanwhile, several of the cases in Delaware and Texas
remained ongoing.
2009).
15, 2008) (finding infringement where defendant’s sponsored ad was triggered by and incorporated plaintiff’s
trademarked “smart money clip”).
19 See, e.g., Edina Realty, Inc. v. Themsonline.com, Civ. 04-4371JRTFLN; 2006 U.S. Dist. LEXIS 13775 (D. Minn. March
20, 2006) (finding liability where “Defendant purchases search terms that include the Edina Realty mark to
generate its sponsored link advertisement”); Fin. Express LLC v. Nowcom Corp., 564 F. Supp. 2d 1160, 1177 (C.D.
Cal. 2008) (holding that defendant’s purchase of keywords that “are identical or strikingly similar to the trademarks held by plaintiff” along with its offer of “services and products which are highly related to those offered by plaintiff” and “simultaneous use of the Web as a marketing channel” may result in consumer confusion).

20 See, e.g., 1-800-Contacts, Inc. v. Lens.com, Inc., 722 F.3d 1229 (10th Cir. 2013).

21 See Rosetta Stone LTD. v. Google, Inc., 676 F.3d 144 (4th Cir. 2012)

22 Graham Charlton, 40% of Consumers are Unaware that Google Adwords are Adverts, ECONSULTANCY BLOG (Feb. 28, 2013) http://econsultancy.com/blog/62249-40-of-consumers-are-unaware-that-google-adwords-are-adverts.

23 Jonathan McIntosh, Admented Reality, YOUTUBE (Apr. 5, 2012) http://www.youtube.com/watch?v=_mRF0rBXleg&feature=tp.


25 Id

26 Id.

27 Rogers v. Grimaldi, 875 F. 2d 994, 998 (2d Cir. 1989).


29 See, e.g., Taubman Co. v. Webfeats, 319 F.3d 770, 777-78 (6th Cir. 2003) (no Lanham Act violation where gripe site with domain name taubmansucks.com that provided editorial on conflict between website creator and plaintiff corporation did not create any possibility of confusion); Taylor Bldg. Corp. of Am. v. Benfield, 507 F.Supp.2d 832, 847 (S.D. Ohio 2007) (gripe site with domain name taylorhomesripoff.com that served as forum for criticizing home builder did not create any likelihood of confusion “because [n]o one seeking Taylor’s website would think — even momentarily — that Taylor in fact sponsored a website that included the word “ripoff” in its website address”); Bally Total Fitness Holding Corp. v. Faber, 29 F.Supp.2d 1161, 1163-64 (C.D.Cal.1998) (gripe site with domain name www.compupix.com/ballysucks dedicated to complaints about Bally’s health club did not create likelihood of confusion because no reasonable visitor to gripe site would assume it to come from same source or think it to be affiliated with, connected with, or sponsored by Bally’s); MCW, Inc. v. Badbusinessbureau.com, L.L.C., No. 02 Civ. 2727, 2004 WL 833595, at *16 (N.D.Tex. Apr. 14, 2004) (Lanham Act unfair competition claims against consumer review websites called “ripoffreport.com” and “badbusinessbureau.com” that used plaintiff’s trademarks in connection with allegedly defamatory posts dismissed because no visitor to websites would believe that plaintiff markholder endorsed the comments on sites); Whitney Inf. Network, Inc. v. Xcentric Ventures, No. 2:04-cv-47-FtM-34SPC, 2005 WL 1677256 (M.D.Fla. July 14, 2005) (unpublished memorandum and order) (dismissing trademark infringement and false designation of origin claims against “ripoffreport.com” because plaintiff mark holder, a seller of education courses, was involved in different field than defendant, who sold advertising space on site and helped aggrieved consumers reclaim lost money, and because no consumer would “be confused by a consumer watch-dog type website that is not selling any real estate investment course”); Cintas Corp. v. Unite Here, 601 F.Supp.2d 571 (S.D.N.Y. 2009), aff’d 355 Fed.Appx. 508 (2d Cir. 2009) (per curiam) (rejecting assertion by Cintas that the website <cintassexposed.com>, run by a labor union and dedicated to criticizing the company’s labor practices, could cause customer confusion).


31 For example, “all portions of a [video game] program, once stored in memory devices anywhere in the game, are fixed in a tangible medium.” Stern Elecs., Inc. v. Kaufman, 669 F.2d 852, 855 n.4 (2d Cir. 1982).


34 Id.


38 Bleistein v. Donaldson Lithographing Co., 188 U.S. 239, 250 (1903)

39 Feist, 499 U.S. at 345.

40 Meshwerks v. Toyota Motors Sales USA, Inc. 528 F. 3d 1258 (10th Cir. 2008). For the purposes of full disclosure, my firm and I represented the successful defendants in this case.

41 Sparaco v. Lawler, Matusky, Skelly, Engineers LLP, 303 F.3d 460, 467 (2d Cir.2002)
42 Id. at 467
45 Durham Indus., Inc. v. Tomy Corp., 630 F.2d 905, 910 (2d Cir. 1980).
46 Entm’t Research Group, Inc. v. Genesis Creative Group, Inc., 122 F.3d 1211, 1221-24 (9th Cir. 1997).
47 Meshwerks v. Toyota Motors Sales USA, Inc., 528 F.3d 1258, 1269 (10th Cir. 2008).
48 Id. at 1269-70.
50 Gaylord v. United States, 595 F.3d 1364 (Fed. Cir. 2010).
51 Castle Rock Entm’t v. Carol Publ’g Grp., 150 F.3d 132, 138 (2d Cir 1998).
52 17 USC 107 (2012).