Web Functionality Software and Tools
Patent Infringement Risk Management

I. Agencies Face Increased Risk from Patent Suits

It cannot come as a surprise that the dramatic increase in both the volume and sophistication of electronic commerce and advertising over the past 15 years has required a dramatic increase in technical innovation. Those technical innovations – most often implemented through software running on new consumer and network devices – have been costly to develop, and many of the companies that make those investments seek to protect their innovations by obtaining patents.

In quantitative terms, the number of patent applications filed in the United States over the past 15 years has increased at a compound annual growth rate of about 3.5 percent, according to a recent Pricewaterhouse Coopers study, while the number of patent infringement lawsuits filed in the U.S. has increased at a compound annual growth rate of about 4.8 percent (i.e. such that it is more than 100% greater now). The annual median damages award in these cases has remained the same over this period at an inflation-adjusted $5.2 million, according to the same study. The ten largest awards in the period, before appeal or other adjustment, ranged from $250 million to $1.85 billion.

More than 95% of patent infringement cases settle before trial, and the range of settlement payments varies widely based on the exposure in each case. The cost of defense of patent cases is a prominent feature in companies' analysis of whether and when to settle. Every other year, the American Intellectual Property Law Association – one of the largest bar associations of its kind – conducts a survey of its members regarding litigation costs (among other things). The 2009 survey reports that the median cost to fight a patent infringement case involving a single patent, where between $1 million and $25 million was at stake, was $1.5 million up until trial and $2.5 million through trial. The costs were significantly higher on the coasts and in plaintiff-friendly Texas. These costs, obviously, create a strong incentive to settle even a weak case, and some companies have made a business of exploiting this economic reality.

Agencies now routinely produce digital work product that includes software to perform functions to hold viewers' attention or to enable advertising to be presented. Recent patent infringement cases provide some examples of the types of marketing functions that have been involved in patent disputes. A company called GeoTag Inc. filed several patent infringement cases last year against a total of nearly 400 companies. GeoTag appears to claim that a patent it owns is necessary to enable geo-location of mobile devices (and feeding information and advertising to those devices). The defendants include dozens of household names, from Boeing to Nike to Taco Bell. A company called Denizen LLC filed a patent case last year against WPP Group, J. Walter Thompson, NBC, and others alleging that they infringe a patent directed to "program-integrated commercials," a form of product-placement advertising. And a company called PixFusion LLC has filed several suits over the past few years alleging that companies like

American Express, Mattel, and Toyota infringe its patents relating to online digital manipulation of uploaded photographs; PixFusion first made news in 2007 suing OfficeMax and its agency Toy to stop their "Elf Yourself" campaign. Agencies design some of these types of software themselves, and in other cases, they may license software and tools from third parties in order to embed them in agency work-product.

However the software gets integrated, it presents very different issues for agencies than does the use of words and images and video alone. It is relatively easy – and familiar territory – to search for words and logos to learn whether a third party owns trademark rights that may present a problem. The mechanisms for securing copyright or taking a license to photographs and other artwork is well-understood. Agencies know how and when to get model releases to avoid publicity rights claims. Functions that are implemented through software, though, may be protected by patents, and as will be explained, it can be very difficult – even for specialized patent counsel and even where there is a willingness to invest in various searches – to determine whether a particular function is freely available or requires a patent license.

On top of that, patent plaintiffs are likely to sue the companies that make (unauthorized) commercial use of their inventions, and those companies are likely to be the clients of agencies rather than the agencies themselves. The 4As Patent Survey conducted in March 2010 reported that, while only 19% of 4As members participating in the survey had been party to a patent litigation, some 60% of participants had received a notice from a client indicating that the client was sued for patent infringement relating to the work performed by the participant. This, of course, can be highly disruptive or damaging to agencies' relationships with their clients.

It is important for all of these reasons that agencies learn more about the patent landscape.

II. What Is Different about Patents?

Patent infringement is a "strict liability" tort. That is to say, liability for patent infringement does not depend on copying or bad faith or negligence. A company that uses an invention protected by another's patent can be subject to injunction and money damages even if it had no idea the invention was patented and even if the company attempted to search and clear its new web function. In this respect, patent infringement is very different from the more-familiar copyright infringement, which turns on unauthorized copying.

An invention must be novel, useful, and non-obvious to qualify for patent protection. The U.S. Patent & Trademark Office will examine a patent application and over a three- to five-year period (for most software) to consider whether a proposed invention truly meets these patentability requirements. Notably, what seems commonplace and obvious today may very well have been novel and unobvious ten years earlier when a patent application was filed or even five years earlier when a patent was granted. Patents are generally in force for a period of twenty years from filing; so, inventors have a significant amount of time in which to commercialize their inventions.

A patent is a government-granted monopoly for a period of years; the patent owner has the right to stop others from using the invention set forth in the patent (or to charge a toll for permission).

The rationale behind granting this monopoly is to incentivize inventors to invent and to teach the public about their inventions; patents are publicly available and searchable, and scientists and other inventors are able to learn how others have addressed and solved technical problems; this leads to new inventions and additional, or even better, solutions to problems.

Software can be used to perform functions and solve problems in much the same way that physical machines do. In the current economy, it may be that more financial and human capital is devoted to digital development and problem-solving than it is to building new machines (which, incidentally, may themselves be operated by software). Indeed, with all of this investment and with the demonstrable innovation that has clearly occurred in recent years, it should be little surprise that the law will and should protect digital inventions that otherwise meet the requirements for patentability, i.e. novelty, usefulness, and non-obviousness.

One of the challenges that arises in relation to patents that protect software-driven inventions is that it can be very difficult to perform a search that will "clear" a new product or a function as non-infringing. There are several reasons for this.

One is nomenclature. It is relatively easy to search patent office records to determine whether a particular chemical compound has previously been used or discussed in relation to the treatment of a particular malady. The search terms are specific and well-defined, and they will show up together in a search or they will not. Searching for functions that occur in an online or digital setting is much more difficult because a wide variety of nomenclature of used. Some programmers, with a Ph.D. in computer science and years of training at Bell Labs, may describe software functions using terms that are well-understood and agreed by academic and technical writers. But plenty of programmers are self-taught (at 14 years old) and wouldn't know a Fourier transform if it bit them on the ascii. Those programmers may describe their inventions using entirely different language than an academically trained programmer, and the law imposes no requirement that they use any uniform nomenclature. It is the patent office's job to look behind the language to discern the functionality that is being described and to assess whether that functionality is novel, useful, and non-obvious.

Another challenge is system complexity. A robust commerce website may include hundreds of potentially patentable functions, from the manner in which shopping carts work to the way images are pulled into html to the algorithms used by the site's search engine and on and on. It may be literally impossible to search and identify every patent that a complex site or a piece of software may infringe.

Still another challenge is timing. Generally, patent applications are published by the U.S. Patent & Trademark Office eighteen months after they are filed. This is the first time they become publicly available, unless the inventor wishes to publicize its application earlier. So, there is always a "dark period" of eighteen months that is unsearchable.

Again, performing a diligent search for prior patents is not an escape from liability. Infringers infringe whether they searched or not. Performing a search is primarily an effort to avoid disputes by avoiding patents that can easily be found (though it may also help avoid a finding of willful infringement, which can result in treble damages and attorneys' fees).

The result of all of these features of the patent landscape is that a business may have an easier time assuming some degree of infringement and arranging its affairs both to minimize infringement and to manage the risks that infringement presents.

III. What's an Agency to Do?

Once an agency digests the fact that it (or at least part of it) is in the business of providing custom software development services, it should come as little shock that the agency may get drawn into patent litigation through its client's commercialization of that software.

4As recommends that agencies make clear in their client agreements that clients assume all risks associated with patent infringement.

4As recommends that agencies make clear in their client agreements that clients assume all risks associated with patent infringement. Clients decide what software functions and features will be used on their websites and in their other digital offerings. Clients receive the commercial benefits that catchy and engaging software features bring to those websites and other digital offerings. Agencies – as agents – implement the instructions of their client-principals. As such, agencies must look to their clients to take responsibility for addressing patent infringement issues; agencies should, whenever possible, obtain indemnity from their clients against patent claims.

The 4As booklet "Provisions in Agency Client Agreements," updated and distributed most recently in 2010, contains sample provisions aimed at addressing the risks presented by patent litigation, and it is worth a review when considering these issues.

4As recommends that agencies give serious consideration to adjusting price in situations where they take on risks that have not historically been factored into their pricing models.

Even though clients ultimately decide what to bring to market, some clients will call upon their agencies to provide indemnity against patent infringement claims. Each agency will need to reach its own conclusions with respect to how much risk it is willing to take for the benefit of a particular client engagement. However, 4As recommends that agencies give serious consideration to adjusting price in situations where they take on risks that have not historically been factored into their pricing models.

If an agency concludes that it will provide some level of indemnity, 4As recommends that the indemnity include a monetary cap and other reasonable limitations.

An agency should review with its counsel the extent of exposure presented by an engagement where a client has demanded indemnity, and the agency should include deductibles, client co-pays, monetary caps and other reasonable limitations on that indemnity.

An agency that assumes patent risk without indemnity from its clients or software suppliers may wish to consider isolating its software development activities in a separate corporate entity that

contracts separately with agency clients to provide development services. In the event of a particularly threatening patent infringement claim or client indemnity claim, the software company could be put into bankruptcy without direct harm to other parts of the agency's business. A strategy of this type has to be managed carefully, and an agency will want to take and follow advice of counsel on it.

Agencies may also undertake to protect themselves by obtaining their own patents for software inventions they develop. These patents can be used to bring counterclaims in infringement litigation that may help force a settlement on reasonable terms (or these patents may be used to prevent competitor agencies from copying proprietary features and functions). Importantly, counterclaims are only useful against other operating companies. Companies that own and enforce patents but do not offer any products or services of their own – sometimes called patent trolls or non-practicing entities – obviously will not be subject to infringement counterclaims.

Finally, agency clients that choose to include software-implemented features and functions in their advertising and marketing programs need to prepare for the possibility of patent infringement suits, and agencies may do well to discuss these issues candidly with their clients. Agencies may be able to assist in their clients' efforts to manage patent infringement risks. For example, agencies can recommend some proactive steps that clients might take to identify and reduce these risks. Several possible steps follow, and while not all steps will be available or sensible in every case, clients may wish to consider whether some ought to be used in each engagement.

Design Software in Flexible Manner

Sophisticated software and website developers often can design their programs and sites in a modular fashion that enables them to remove or redesign functions that get challenged in an infringement suit. This may be particularly worthwhile when a new function is getting introduced; a site that has operated with the same functions for some time may be at somewhat less of a risk of an infringement suit. Designing software in this way may be more time-consuming or costly for the client, but clients may prefer the added flexibility.

Being able to remove or redesign a module that has attracted a patent suit gives a website owner additional options and leverage. Removing the module may cut off the accrual of damages; it may enable the site owner to consent to an injunction to end a suit; it certainly reduces the cost to take these steps. These options enable the site owner to negotiate more aggressively with a patent owner, and if the patent owner is primarily in the business of enforcing patents it has purchased, the patent owner may accept a reduced payment rather than none at all. (The site owner may still be liable for past damages, accrued before removal of the module, but for a newly introduced feature, those damages may be too small to justify the plaintiff continuing its suit.)

Use Market-tested Components

A client may choose, when possible, to power functions and features of its websites using off-the-shelf software components/modules that have been in use in the marketplace for some time.

There is no guaranty that these components will not infringe a third party's patent (or several), but a client may reasonably find some comfort in the fact that no challenge has been made yet.

Using off-the-shelf components may also give the client an opportunity to seek indemnity from the company selling the challenged component. Software license agreements frequently attempt to avoid such an obligation (or indicate that indemnity is limited to situations where the component has not been combined with other software or systems in such a way as to give rise to infringement). Nonetheless, it may be in business interests of the company selling the component to provide a defense. It may be good customer relations vis-à-vis other current and prospective customers, and it may prevent a situation where a customer concedes liability and creates greater problems in the future for the component supplier.

Watch for Problems in Marketplace

Clients should watch for published reports of patent litigation related to software and web functionalities that they wish to use on their websites and other digital offerings. Agencies can help to protect themselves by following that news as well. Armed with the knowledge that a particular feature is more likely to draw a patent infringement claim, a client will be in a better position to weigh the risks and benefits of including that feature. A client will also be able to task its patent counsel with analyzing that patent as it may apply to the feature.

Patent counsel can monitor court activity, such as the status of pending cases involving patents of interest and new case filings involving specific patents or parties. Counsel can monitor activity in the patent office, such as the status of pending applications of interest (e.g. owned by particular companies or relating to particular subject matter). A patent watch service can search key words and phrases quarterly (or annually or monthly) in the patent office, like for new patent applications that contain the words "website" in the same paragraph as "advertising."

There are, of course, many more ways to collect marketplace data, and clients and agencies should each work to become more aware of specific patent issues as they arise. Again, with more specific knowledge of the risks, clients can take the opportunity to omit a function or undertake to design around a patent. Watch services, like those offered by the IP Search Services group at Thomson Reuters, are relatively inexpensive; the greater cost is in engaging counsel to review the "hits" that a watch service turns up. Still, a decent marketplace monitoring system may cost less than $10,000 a year to maintain.

Consider Freedom-to-Operate Studies

While it is likely to be cost-prohibitive (if it is even possible) to have patent counsel "clear" an entire software application or website against potential patent infringement claims, it may be worthwhile in some circumstance to clear specific functions, especially new functions or functions that are already in litigation. It may also be worthwhile to undertake to clear features or functions that will be used over and over or will be used for a number of years. In these circumstances, a freedom-to-operate study may we well worth even a six-figure cost.

An agency can discuss with its client whether it makes sense for the client to obtain a freedom-to-operate study for a specific engagement or for a specific feature. Clients should be aware, however, that a freedom-to-operate study may take some months to complete. The searching alone may take several weeks due to backlogs at search providers. Patent counsel will review the results and consult with the client's or even the agency's technical staff, and this may lead to further searching or to design-around work (i.e. revisions to a module to avoid the specific technical requirements of a patent claim) or to preparation of a clearance opinion. Clients and agencies may, as a result, need to adjust their expectations regarding project timelines.

Generally, these projects require input both from legal staff and from software development staff.

Patent Infringement Defense Insurance

It may be possible for a client to obtain insurance that will pay the cost (or some of the cost) of defending a patent infringement case. Insurers may require the insured to pay for a freedom-to-operate study as a pre-condition of issuing a policy, and policies may have relatively high deductibles (e.g. $50,000) and relatively low caps (e.g. $1,000,000). Where insurance is available, it will likely be limited to specific functions rather than all business activities or entire websites. Still, insurance may form an important part of a client's overall risk-management strategy, and a client should review options with its patent counsel and insurance brokers.

Also, it is worth noting that some older commercial general liability policies have been held to protect against some kinds of patent infringement claims as a form of "advertising injury." Policies issued within the past ten years, however, tend to contain express exclusions of patent infringement coverage. Still, a client should examine its coverage as part of understanding its business risks.

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The marketing industry has seen patents asserted on seemingly basic functionality including one-click online shopping, online shopping carts, the hyperlink, video streaming, pop-up windows, targeted banner ads and even paying with a credit card on line. The complexities associated with patent filing, enforcement and infringement are a challenge for technology based industries. The evolving patent marketplace is causing discussion by government regulators including the FTC, landmark judicial proceedings and potentially, at some point, patent reform legislation. However, for the foreseeable future, patent infringement risk management will continue to require vigilance on the part of marketers and their agents.

In conclusion, while agencies are confronted with patent infringement issues to a greater degree than at any time in their history, the risks presented by those issues can be reduced through appropriate contractual relationships with clients and through a number of proactive steps that may help to identify and quantify risks. Agencies, or at least parts of them, have become software development companies and face the risks that software development companies face. Accepting that reality and preparing accordingly is the best weapon agencies have in their arsenal.