

COMPETITION AND CONSUMER PROTECTION IN THE 21ST CENTURY

SAS INSTITUTE'S RESPONSE TO QUESTION 8:

ROLE OF INTELLECTUAL PROPERTY AND COMPETITION POLICY IN PROMOTING INNOVATION

Thank you for the opportunity to provide comment relating to the role of intellectual property and competition policy in promoting innovation. As background, SAS is a software company that has been in the advanced analytics business since 1976. The company was formed by four individuals at North Carolina State University, and today it remains privately held. One of the founders remains SAS' CEO today.

Historically, SAS relied on copyright and software licenses to protect its intellectual property. After the *State Street Bank* decision in the mid 1990s clarified that software could be the subject of patent protection, SAS followed the practice of other technology companies and started applying for patent protection for its innovations. The reality of the marketplace and litigation arena is that SAS cannot avoid seeking patent protection for its innovations. One of the major reasons for this shift in attitude is that our competitors were seeking to assert patents against the company, and SAS as a company started to get sued by patent assertion entities on inordinately low quality patents that had emanated from the US Patent and Trademark Office (PTO) in the wake of the *State Street Bank* decision.

With that background, SAS offers several thoughts.

1. The Intellectual Property Protections Available for Software Are Uncertain. As stated above, software can be protected under copyright law for the expressive elements contained in the program, as well as patent protection for its inventive elements. With respect to copyright, software is afforded protection against literal copying, as well as copying of the program's non-literal elements, such as structure, sequence, and organization. Similarly, to the extent that software contains an "invention" that is new, non-obvious, and useful, software creators should receive patent protection to exclude everyone else from practicing that invention for limited times.

The legal landscape that underpins copyright and patent protection for software has recently begun to shift. In *Alice Corporation v. CLS Bank International*, the Supreme Court held that an abstract idea could not be patented simply because it was implemented on a computer. In reaching its decision, the Court created a two-part test to determine whether the subject matter was an abstract idea not eligible for patent protection:

Step One: "[D]etermine whether the claims at issue are directed to one of those patent-ineligible concepts." *Alice Corporation v. CLS Bank International*, 134 S.Ct.2347, 2355 (2014).

Step Two: "If so, we then ask '[w]hat else is in the claims before us?' (internal citations omitted). To answer that question, we consider the element of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id.* (internal citations omitted.)

Alice itself did not involve software specifically, but to essentially a claim reciting a generic computer implementation. It did not involve patentability of software. At the time, the Court believed that the decision was fairly limited, following precedent, and was non-controversial. "But however limited the Court believed or intended the *Alice* decision to be, the case has been broadly interpreted by both the federal courts and the



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USPTO, and the impact has been dramatic.” *Two Years After Alice: A Survey of a “Minor” Case*, Fenwick West’s *BilskiBlog*, June 16, 2016, available at http://www.bilskiblog.com/blog/2016/06/two-years-after-alice-a-survey-of-the-impact-of-a-minor-case.html#_ftn15. And dramatic with respect to both the increase in the number of court cases in which software patents were found to be patent ineligible as well as the PTO rejection rate for software patents following *Alice*. *Id.* See also KnobbeMartens, *Impact of the USPTO Examination Guidelines on Software Patents Post Alice*, September 2, 2016, available at <https://www.knobbe.com/news/2016/09/impact-uspto-examination-guidelines-software-patents-post-alice>. While there is some suggestion that this uncertainty over software patents may have started to moderate somewhat, whether software will receive or retain patent protection in the post-*Alice* environment is a gamble, at best. A patent application’s success under section 101 appears to depend on the examiner and art unit to which it is assigned. Courts (or even judges or panels of judges on the same court) similarly reach inconsistent results regarding patent eligibility. This uncertainty harms most businesses and innovators because they cannot make decisions based on any predictable notion of what the law is.

We see similar uncertainty in the copyright space. Although there is black letter law that software is protected by copyrights, actually enforcing those rights is not straightforward. See, for example, *Cisco Systems v. Arista Networks*, in which a jury excused copyright infringement by Arista on the basis of a *scènes a faire* defense, Steven Brachman, “*Cisco v. Arista Patent and Copyright Infringement Cases See Conflicting Rulings at ITC, N.D. Cal.*,” *IP Watchdog blog*, January 12, 2017, available at <http://www.ipwatchdog.com/2017/01/12/cisco-v-arista-patent-copyright-infringement-conflicting-rulings/id=76615> (the case was recently settled and, as part of the settlement, the infringement decision vacated). Across the board, courts “struggle with, and disagree over, the tests to be employed when attempting to draw the line between what is protectible expression and what is not.” *Oracle v. Google*, 750 F.3d 1339, 1357 (2014) (internal citations omitted.)

SAS cheered the Court of Appeals for the Federal Circuit’s decisions in *Oracle v. Google*, first overturning the district court’s conclusion that the sequence, structure and organization of the Java software, although expressive, was also functional and thus not protectible by copyright, and second overturning the jury’s conclusion regarding fair use. Specifically, the Federal Circuit said “[i]f we were to accept the district court’s suggestion that a computer program is uncopyrightable because ‘it carr[ies] out preassigned functions,’ no computer program is protectible. That result contradicts Congress’s express intent to provide copyright protection to computer programs” *Id.* at 1367. But it took Oracle nearly a decade of litigation and several trips up to the Court of Appeals and back to achieve the current outcome, which is still subject to further appeal, illustrating the lack of certainty in this area of the law.

Without clear guidance as to what software might be patent eligible, and a similar cloud of uncertainty over copyright protection for the expressive elements of software, software developers lack the information needed to make decisions about how to try to protect the fruits of their innovative efforts. If intellectual property protections are insufficient, companies may opt for trade secrets or may be forced to rely on more stringent licensing requirements. Some companies choose to base their businesses around open-source software. While open-source software plays a critical role in the software industry, the decision about what software to make freely available to others should be a choice companies make for themselves, rather than a policy decision that disproportionately benefits companies who earn revenue from sources other than licensing software.

From an innovator’s standpoint, SAS wants to compete in the marketplace on a level playing field. If other entities are permitted to wholesale copy the fruits of our innovative labor, that is not fair competition.

Consequently, SAS suggests that the FTC, as part of these hearings, explore the limits of its competition policy to see what it might be able to do to help ensure that intellectual property remains a viable means of protecting innovative creations.

2. The Impact of Low Quality Patents Existing in the System.

“The bold findings of *State Street Bank* invited a dramatic increase in business method and software patents. Software patent numbers exploded from around 30,000 per year to over 100,000 per year in the 10 years following the 1998 decision, and the torrent of business method patents included e-commerce, insurance, banking, tax compliance, financial services technology, cell phone apps, and many other areas. The USPTO was ill-equipped to properly examine the rush of filings, and excessive, overly broad claims were granted.” *The 20 Year War On Patents: When Will It End?*, Quinn IP law blog, February 2, 2017, available at <https://www.lexology.com/library/detail.aspx?g=8cdd3dd7-1fb3-48dc-a7ba-b6ffb0076e8e>. While the numbers of patent examiners have steadily increased, it has not matched the significant increase in volume of annual patent applications. The result is that the system undoubtedly has many more lower quality patents in the system, both because poor quality applications are being filed (especially in the software and business method area) and because there is no conceivable way that the examination corps can eliminate all poor quality patent applications from the system.

Much has already been written about the correlation between the significant rise in patent applications, the issuance of low quality patents, and the explosion in patent litigation that the US has experienced since *State Street Bank*, and we will not repeat that here. SAS raises the issue merely to say that with the significant numbers of low quality patents fueling frivolous litigation, it is increasingly difficult to objectively assess what the value of intellectual property protection is for innovative systems. SAS appreciates the FTC has aggressively used its Section 6 authority to understand and ensure that there is continuing value for innovative communities, and we particularly commend the Commission’s 2016 *Patent Assertion Entity Activity* report. SAS suggests that further study is necessary to begin to peel away the opaque view society now has into whether intellectual property rules are, in fact, stimulating innovation and creativity, and what further steps may be necessary to ensure innovation and fair competition.

As an ancillary point, one of the significant advances in the last decade is the creation of the Patent Trial and Appeals Board (PTAB) and the development of inter partes review (IPR) trials, as part of the America Invents Act. The PTAB provides an important mechanism, separate from litigation, to give the PTO a “second chance” to review its work and decide if a patent was validly issued. This is crucial in the software and business method patent area, which most would acknowledge is a high contributor to the low-quality patent endemic.

Again, there has been much rhetoric reported about the effectiveness of the PTAB and IPRs, with some of the more hyperbolic remarks suggesting that the PTAB is a “patent death squad”. See, for example, Rob Sterne and Gene Quinn, *PTAB Death Squads: Are All Commercially Viable Patents Invalid?*, IPWatchdog blog, March 24, 2014, available at <http://www.ipwatchdog.com/2014/03/24/ptab-death-squads-are-all-commercially-viable-patents-invalid/id=48642/> (citing comments by former Chief Judge Randall Radar’s comments at an AIPLA 2013 annual meeting to the effect that the PTAB panels were “death squads killing property rights.”)

In SAS’ view, the PTAB provides an invaluable service reviewing the work of the PTO, and IPRs an important tool, to ensure that low quality patents are not permitted to proliferate in the system. In SAS’ view,

the rhetoric is not only overheated, but not warranted by the statistics. We raise it because, notwithstanding the actual statistics, it is under threat of dismantlement by IPR opponents. If this were allowed to happen, it would have important ramifications on consumer welfare. Importantly, innovative companies like SAS are likely to find themselves re-embroiled in frivolous litigation, to the detriment of our ability to fund continuing research and development, or create new jobs to support that innovation. Higher litigation costs are likely to further translate into higher product costs, and those costs are almost certain to be passed on to consumers. There is also a potential impact in terms of corporate ability to provide ongoing technical support, which may further disappoint consumer expectations. These are all negative externalities that the PTAB and IPR processes were intended to ameliorate, and it would be a tremendous setback socially to see them reimposed. SAS appreciates that there is a limited role for the FTC to play here, and we (like others) are making the case to the PTO and others to be careful in this regard, but wanted to raise the potential impacts for the FTC's consideration.

In conclusion, SAS appreciates the FTC's efforts to review the competitive conditions in the United States, and to consider recommendations to improve those conditions. We appreciate the opportunity to provide comments, and are happy to discuss this topic and others in greater detail.