

## CCIA Comments on the WIPO Report on the International Patent System

The Computer & Communications Industry Association wishes to commend WIPO for undertaking this report for the Standing Committee on Patents. This synthesis of current conditions and issues is a landmark first step in reorienting WIPO towards further understanding of how intellectual property functions in the global economy and how patent law regimes can be improved or reformed to better meet agreed-on goals. We believe that WIPO should take a leadership role in integrating economic and legal analysis in collaboration with other organizations that show a genuine commitment to disinterested research and analysis. We hope that WIPO will build capacity both in-house and in engaging the broader community of researchers and stakeholders.

We offer the following on this initial report in the spirit of assembling a more coherent common understanding of the strengths and weaknesses of the patent system. We mean “system” in a broader sense, not just as a collection laws and bureaucracies, but as an economic tool employed by economic actors that should lead to economically beneficial outcomes.

With this in mind, we focus on a set of issues that would benefit from closer attention. The central theme here is the fact that there are substantial differences among different technologies – and thereby different industries - in how patents are used and experienced. CCIA’s experience centers on information technology and its applications, so we have a special concern for some issues that may not be seen as troublesome in other areas. We believe that the report needs shed light on these problems and the tensions increasingly apparent within a one-size-fits-all patent system (especially since these tensions are thwarting a major effort at patent reform in the United States). We also note that the European Patent Office’s (EPO) Scenarios Project recognizes many of these challenges in the “Blue Skies” Scenario.

In many respects, these differences revolve around the structural differences between complex-product technologies such as information technology and discrete-product technologies, such as pharmaceuticals and chemicals. Under present standards, complex products may include thousands of patentable functions or components, while a discrete product may be protected by a single primary patent. Accordingly, information technology is characterized by large numbers of relatively low-value patents while pharmaceuticals are characterized by a smaller number of high-value patents.

Thus demand for patents appears to be very high in information technology, but in fact patents play a far lesser role than they do in pharmaceuticals. IT companies want “freedom to operate” in order to build complex products and services without being blocked by the many patents that belong to others. They assemble large portfolios to be used defensively if and when they are threatened

with infringement actions by competitors. This deterrent effect is reminiscent of a nuclear arms race, and is often referred to as “mutually assured destruction.” Large companies commonly cross-license with each other, often with balancing payments to adjust for the size of their respective portfolios. Cross-licensing is problematic for a field like software, however, where there are a large number of different-sized, differently-situated companies.

From a policy perspective, the evolution of the patent “portfolio” as the relevant frame of reference (as opposed to the individual patent) is likely to discourage new entrants. Conventional wisdom says that patents protect startup companies – and within a narrow ambit, this may still be true. But a startup that wants to develop fully functional products (rather than just technology to license to others) will need access to the patents of others, possibly large numbers of patents. In that respect, portfolios serve as barriers to entry for newcomers while reinforcing the market positions of incumbents.

The high volume of patents in complex-product technologies such as IT creates fertile ground for a major problem: non-practicing entities, commonly referred to as “trolls.” The troll problem has several dimensions that need further explanation

First, portfolio-driven demand, especially when combined with low inventive-step standards and inadequate patent office review, results in large numbers of trivial or questionable patents. This diminishes the value of patent information in IT and ultimately make product clearances prohibitively expensive. As a consequence, patents are ignored unless the patent owner asserts them. Thus, independent invention is commonplace, and inadvertent infringement is the inevitable result. (Recent empirical research shows that copying is rare in patent litigation, and especially rare in IT.) This is especially problematic for software, where the high search, information, and transactions associated with clearance simply overwhelm the relatively low cost of authoring software.

The discussion of patent information in the report is especially deficient in this respect. This section is lacking in documentation and expresses unsubstantiated faith in the usefulness of patent information without differentiating among fields.

In fact, the virtual opacity of the information environment in IT creates opportunities for arbitrage. Trolls can assert what were once low-value patents against companies that produce complex products that may inadvertently incorporate the trivial technology covered by the patents. The longer the troll waits, the more fully the technology is adopted and embedded, the more leverage the troll has. The leverage reaches an extreme in the case of standards embedded in products all across an industry. This extreme vulnerability also needs to be brought out in the discussion of standards and patents.

The development of markets for technology hailed in the report has a major downside in that patents are often most valuable in hands of trolls. When companies fail – as most startups do – patents are sold off as the remaining assets. These patents enter patent markets where they can be acquired knowing or speculating that they are being infringed by someone somewhere.

Finally, the discussion of subject matter gives short shrift to the patentability of computer programs, which continues to provoke legal, economic, and political controversy. Much of the controversy can be explained as an extreme version of the problem set faced by IT generally, but in some ways software is unique: Copyright is available for software, which may further diminish the value of patents, and copyright appears to fit better with the high degree of simultaneous innovation that takes place in software. Only software is suited to open source models of development and distribution. For this reason, standards organizations focused on information and software standards (W3C, OASIS) prefer royalty-free licensing since it does not discriminate against open source models.

Much of the global economy is dependent on IT. It is important that WIPO members understand the economic dynamics around patents in information technology – including the possible solutions to the problems they present. To recapitulate, these include:

- differences among technologies, especially between complex and discrete products
- conflict between standards and patents
- direct costs, distorted incentives, and unintended effects created by portfolio practices
- the limited value of patent information in an overheated patent environment
- the destructive potential of patent arbitrage against producers and service providers
- the extent to which software should be patentable subject matter

Considerably more could be said about patents and standards, but since that has been designated one of four priority areas for future work, we will furnish detailed comments once plans are made public.

We would be happy to furnish references and further explanations for these comments. Thank you for the opportunity to contribute to this much-needed agenda.

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