

The Case for a New First Reading for the Directive on Computer-Implemented Inventions

The European Union faces the challenge of redrawing the dividing line between what is patentable and what is not. The plain language of the EPC was commonly understood to proscribe patents on computer programs but over the years proved vulnerable to pressure and circumvention by insiders. The question is how to redraw the line so as to make it sharper and stronger, especially given the wholesale erosion of limits that has occurred in the U.S.

The Commission's analytic work on the Directive dates from 1996- 2001, a time when rapid growth in patenting was too readily associated with the technology boom. Its working assumptions were formulated early in this period, largely through interaction with a community of patent experts who had an economic stake in expanding the scope and scale of patent system. It has become clear that this issue is not just about legal harmonization or industrial policy for a single sector. Since that time, new research, reports, and business practices present policymakers with much richer perspective on the economics of software patents. Instead of moving toward compromise, the debate has broadened and deepened as a larger set of experts and stakeholders have joined in.

The expanded debate demonstrates the difficulty of the issues and the limitations of the Commission's initial analysis. Software provides the infrastructure for generating, organizing, managing, and communicating information, including new knowledge, whatever the field. The debate shows plainly that there are contending visions of the emerging knowledge-based society that will be hard to reconcile – as demonstrated by the Council's unwillingness to move toward the Parliament's position on the Directive. Pleadings by influential companies for the validation of granted patents show how difficult it may be for future Commissions, Parliaments, and Councils to limit patentability -- especially when substantial private investment and ingenuity have to be devoted to challenging and circumventing popular understanding of the limits.

Europe's decision on the proper scope of patents deserves the fullest possible scrutiny, and the many new MEPs should have an opportunity to examine the issues in depth. Three deficiencies in the initial analysis deserve particular attention:

- **Liability.** The original analysis presented patents solely as assets for protecting invention and investments. Yet patents also block the ability of firms to invent and invest, especially in cumulative technologies. Furthermore, patents create hidden liabilities because, unlike copyrights, patents preclude independent

invention. Inadvertent patent infringement is commonplace in complex technologies, because it is impractical to read and evaluate all possibly relevant patents. Liberalized and lowered standards for patentability increase potential for conflict and liability, increase the availability of and demand for patents, and create a seller's market for professional services. Inadvertent infringement also presents a risk to mere users, including public sector users, who receive no direct benefits from patents. Patent insurance is costly and offered by only few companies.

- **Transaction Costs.** The initiative for a Community Patent has focused attention on the high transaction costs of applying for, registering, and enforcing patents in multiple languages and jurisdictions. The Commission has also been mindful of the disproportionately high costs that SMEs face in enforcing their patents and commissioned a study to investigate a public funding mechanism to support the assertion of patents by SMEs. But the Commission has not addressed the disproportionate costs SMEs face defending against patent assertions.
- **Portfolios.** Low standards combined with the large number of patentable functions in complex technologies has led to massive strategic patenting. This means that competition is focused at the portfolio level and that most individual patents have little value, unless they are patents on broad abstract such as business methods or unless they are inadvertently incorporated into a finished product. Large companies cross-license portfolios to achieve "freedom of action," but newcomers have little or nothing to cross-license and must acquire licenses from multiple sources. Intensive patenting creates "thickets" that allow firms to dominate an area and to extend dominance over time by generating more patents.

These problems underlie new phenomena in patent practice that cannot readily be factored in to legal analysis or even conventional economic analysis. These phenomena are more advanced in the U.S., but they are poorly documented because patent agencies are only accountable for issuing patents and not for evaluating how patents work in business and industry.

Specific recent developments include:

- The Federal Trade Commission report, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (10/03) – documenting major differences in how different technology sectors

experience patents and recommending against unsubstantiated expansion of patentable subject matter.

- The Open Source Resource Management study finding that as many as 284 patents may be assertable against the Linux kernel
- The announcement of Microsoft's licensing program headed by the architect of IBM's licensing program (10/03), Microsoft's 50% increase in patent filings for 2004
- The resolution of the World Wide Web Consortium's patent policy in favor of royalty-free licensing (2001-04)
- A dramatic rise in patent assertions following the Internet bust, including:

Kodak's successful litigation against Sun and Sun's subsequent settlement (2004)

Eolas' \$521 million verdict against Microsoft (2003) with the potential for similar litigation against other companies, including end users)

SCO's litigation against IBM and end users (although based in copyright, it reveals the new willingness of companies with marginal business prospects to turn to intellectual property litigation)

The proliferation of patent "trolls" as documented in the FTC hearings (2002)

Patent aggression tactically aimed at small companies and nonprofit organizations, leading to Electronic Frontier Foundation's Patent Project (2004)

The recently announced Intellectual Ventures patent assertion cartel (2004)

- The recent emergence of indemnification of software users for patent infringement as an issue in the marketplace (11/04).
- Rapidly growing literature on patent thickets and strategic patenting
- Publication of a well-documented and devastating critique of the U.S. patent system, *Innovation and its Discontents*, by prominent scholars Josh Lerner and Adam Jaffe (11/04)
- Publication of survey data from the American Intellectual Property Law Association showing the prohibitive and disproportionate cost of patent litigation when small amounts are at stake (2001, 2003)

Whether one views software as a special case because of its non-industrial nature and unique economics of production and distribution – or as an extreme case of the problems of complex and cumulative technologies, these developments demand closer attention than they have received. The stakes are too high, and decisions made today are too likely to set a course that will not be revisited for another 30 years.

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