Imitation is the Sincerest Form of Flattery: Software and User Interface Design in a Changing Patent Landscape

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The History of the Patent System

1790: The first patent was granted to Samuel Hopkins for the process of making pot ash. No patent had been used in soap-making and glass manufacturing, shortly after the Patent Act was created. Since its inception the United States Patent and Trademark Office (USPTO) has granted more than 8 million patents. As the rate of technological invention and innovation has accelerated, the USPTO has had to deal with changing how to interpret patents. In recent years the realm of patents has shifted, moving from more mechanical objects to applications for patenting software. The Patent Act does not explicitly prevent the patenting of algorithms, and the USPTO has taken direction from the Supreme Court in this matter.

The Problems with Patents & Software

Patents have always been sticky due to the imprecise, vast language that is frequently used in patents. Even mechanical device patents can have imprecise language, but the difference between that and software is that with a mechanical device there is a tangible object to look at and with the true meaning of the language in a patent. A literal, tangible object accompanied a description of the patent until this practice of submitting a model was disbanded in 1880.

Sheer Numbers:
• The number of patent applications has risen by 50 percent over the last decade, with more than 540,000 patent applications filed in 2011 alone.
• Since 2000, Apple has won 4,100 patents, Microsoft 21,000, and Google 2,700.

Software patents often grant ownership of concepts rather than mechanical creations and the conceptual description itself is enough to obtain a patent, so the boundaries become even more undefined and overlap occurs. When these boundaries overlap, patent examiners have difficulty determining the novelty of a patent.

How to Get a Patent 101:
An invention must be:
• Noveltousubstantially different from what exists
• Not Obviouscan’t patent a new toaster simply by expanding it for five slices of bread
• Usefulcan’t patent an invisibility machine if invisibility is impossible

(This is one area where Samsung takes issue with Apple and the patents they have been granted, saying that “Apple doesn’t own beautiful and sexy.”)

• User interface design, defined as the design of the system or interface with which a user has direct contact and with which they interact to conduct activities, is complicated, intricate and dense.
• Patent examiners are spending only roughly 17 hours per patent application, its no wonder there is overlap and confusion in software patent law.
• Patent examiners do not typically question the underlying features of patent applications for business models or computer software, and thus do not clarify how the patent will function, causing confusion and litigation.

Abstract Concepts

Communication is everywhere, and what makes language, semantics, and gestures useful is that they have reached a critical mass, becoming a viable tool for communication. In the landscape of our technology, gestures continue to become ever more important, in touch screens for phones, iPads, computers, and so many other inventions.

Gestures & Communication

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We all have our own style of gestures, similar to the differences in handwriting styles, and that these gestures (like handwriting) have a typed form.

As with any language, conformity to a type form allows more articulate expression because there is a standard of communication in which to express one’s self to others in a common language.

Patents as Shields

This patent agreement strays pretty far from the typical company policies on engineers’ rights and patent guidelines. Most companies make engineers, designers, and employees sign their inventors’ rights over to the company, giving the company control over the power to do what they want with the patents (including selling them at their discretion).

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Apple was awarded $290 million dollars in November 2013 for patent infringement. The California federal court found that Google had copied and cloned the Apple-patented gestures and graphical user interface, including the pinch-to-zoom, the bounce-back or rubber band effect, and the double tap zoom. Besides these gestural interactions, the jury found that design elements, such as rounded icon corners, the home button, and “rounded rectangle app icons arranged in a grid” were also infringing on Apple’s designs.

The number of patent applications submitted each year by Apple has increased tenfold, giving them a monopoly on many broad software technologies. This is good news for Apple, but is it good news for innovation and communication?

Conclusions

While patents are good for protecting ideas, the current patent system needs to be reworked due to software technology, like mobile phones. The gestures and communication at play in these devices and software programs are creating a new language, and for that language to become useful as a communication tool, the gestures and language must reach a critical mass to become viable. The overwhelming amount of offensive patent wailing creates stagnation in innovation and communication.

Companies like Apple and Samsung need to rethink their use of patents, using them to further technological innovation, instead of pursuing lawsuits to try and keep one another from gaining the upper hand in the mobile market.

References


