Introduction

Modern designers of graphical user interfaces, or GUIs, have obtained design patent protection for creative computer software displays, a realm previously limited to copyright. The difference in protection is important. Design patents do not require copying, while copyright does. Design patents do not have a fair use defense, while copyright does. Design patents do not exclude protection of ideas, while copyright does. Finally, design patents do not apportion damages to the infringing component, while copyright does.

Thus, a trend toward patenting is unsurprising. However, design patents for GUIs present some legal difficulties. Design patents should protect ornamental designs only, but user interfaces incorporate significant functional elements. To be sure, GUIs include creative design elements as well, but there is no clear dividing line in the current case law.

Indeed, few courts or commentators have specifically weighed in on how design patents should apply to the mélange of functional and ornamental features of GUIs. How should animations, such as a spinning cursor or a simulated page turn be treated? What about the overall design of the user screen? These questions and more have received little attention to date. Those few non-GUI cases attempting to separate functionality from ornamentality appear to rely on gut feelings more than analytical dissection. In many cases, courts leave the determination up to the jury with little guidance.

Examination of economic principles may help guide courts in deciding when a GUI is ornamental or not. These same economic principles applied to copyright disputes of the 1980’s and 1990’s, many of which were bitterly fought but now seem relatively well-settled.

Nascent GUI designers used copyright law to protect the creative aspects of their designs. They did so with varying levels of success; some cases extended protection while some did not in seemingly opposed opinions. I reconciled these decisions in an article called How Can Whelan v. Jaslow and Lotus v. Borland both be Right: Reexamining the Law and Economics of Computer Software Reuse.
The results of my analysis were twofold. First, I argued that courts were the gatekeepers to the proper level of protection. As such, I showed that they maximized social value, but only based on the facts of the cases before them, rather than based on an attempt to maximize welfare \textit{ex ante}.

Second, this “middle stage” optimization led to factors that considered the relationship of the parties and the importance of the software before the court. Thus, courts should be—and are—more likely to find infringement in cases of market substitution, slavish copying, or breach of an economic relationship.

Also, courts should be—and are—less likely to find infringement or less likely to extend protections where customers benefit from compatibility. For example, where switching costs are high, either due to hardware costs or user training, courts will be more willing to allow reuse. Similarly, where the design becomes a de facto standard, courts may be more likely to allow others to use it.

Further, courts should be—and are—less likely to extend protection where competitive principles favor compatibility. Courts will allow software that provides network connectivity or an applications programming interface that allows software programs to exchange data.

These three factors—substitution, customer needs, and competitive needs—explain virtually all, if not all, judicial copyright decisions relating to software reuse, including GUIs.

This article considers whether the same economic analysis should apply to the burgeoning law of design patents. I submit that it does.

First, courts should be the gatekeepers of the ornamental/functional divide. They currently do so for bench trials, but have been hesitant to do so for jury trials. Thus, the groundwork is laid for courts to act as a gatekeeper in all cases. Judicial gatekeepers were an easier argument for copyright law because copyrights are not examined. Lawsuits were the first chance to consider difficult questions. While the patent and its concomitant examination necessarily shift much of the analysis further \textit{ex ante} than the time of the infringement lawsuit, judges might still act as gatekeepers later in time. Because the importance of a GUI design can change over time, judges faced with competing products will be in a better position than patent examiners to assess future social welfare associated with protecting a GUI or allowing reuse.

Second, courts hearing design patent cases should consider the same economic factors that are critical to copyright—substitution, customers, and competitors—when assessing design patent protection. They should do so because the same factors will maximize social welfare. They should also do so because these factors are consistent with the statutory requirements for ornamental protection.

This article proceeds in three parts:
Part I briefly describes the requirements for design patent protection, with emphasis on the aspects important to GUIs. Part II summarizes my prior economic model. Part III applies that model to design patent protection. First, it concludes that the economic model should continue to apply, at least with respect to GUIs. Second, this part examines how the economic factors derived from the model might apply to design patents.