

Patently-O

Alice, Artifice, and Action – and Ultramercial

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Anyone familiar with recent Supreme Court patent jurisprudence was perhaps disappointed but certainly not surprised by the Court's latest decision, *Alice Corp. v. CLS Bank Int'l*. The Court once again left many questions unanswered and failed to provide a clear rubric for identifying patentable subject matter. When viewed within the broader context, however, *Alice* fits nicely within what is actually a long-standing pattern in § 101 cases. If *Ultramercial v. Hulu* follows this pattern after its now second GVR, the Federal Circuit may finally affirm that the internet-mediate advertising method at issue there is unpatentable subject matter.

In *What Is "Technology"?*, I explain that as unmethodical as patentable subject matter often seems, two surprisingly consistent concepts explain how courts identify patentable subject matter. The article dubs these concepts "artifice" and "action."

Artifice refers to the well-recognized requirement that patentable subject matter be the product of human ingenuity, not nature. Less appreciated is the fact that artifice requires more than just changes in structural or other physical characteristics; to be patentable, a claimed invention must also function in some new, non-naturally occurring way. We can see this latter point illustrated in the purification line of cases as well as *Myriad*, *Funk Brothers*, and *Chakrabarty*.

Much more obscure but more relevant to *Alice* is the concept of action. Roughly defined, action is the requirement of active rather than passive utility through operating, behaving, performing, or otherwise actively *doing* something; that is to say, an invention must be "self-executing." Inventions that display, transmit, or even store information may satisfy the action requirement, but works such as laws of nature, mathematical algorithms, and "abstract ideas" are (perceived as) merely informational

or descriptive in value and therefore unpatentably inert. Moreover, as *Alice* explains, the abstract idea category is not “confined to ‘preexisting, fundamental truth[s].’” By definition *any* purely informational or descriptive content, whether naturally occurring laws of nature and mathematical algorithms or human-made financial and economic methods, fails the action requirement. As the Court in *Diamond v. Diehr* put it, such works simply do not “perform[] a function which the patent laws were designed to protect.”

To the extent different tests appear to govern natural products versus laws of nature and abstract ideas, then, artifice and action – and more importantly, the circumstances in which each are likely to be invoked – account for these differences. Artifice obviously plays its largest role in cases involving products or laws of nature, whereas action is most important in cases involving abstract ideas and laws of nature. Nonetheless, patentability under § 101 requires both artifice and action.

Both *Alice* and *Bilski* illustrate what role action plays under § 101. The methods in both *Alice* and *Bilski* involved hedging risk during business transactions by relying on intermediaries, but more importantly, both methods served solely to inform parties about when they can safely transact. The *Alice* and *Bilski* opinions describe this as the abstract concept of intermediated settlement, but really it is just information – information about risk. As such, both methods were unpatentably inactive under § 101.

And although *Alice* differs from *Bilski* in that *Alice*’s method was computer-implemented, the Court found both methods to be unpatentable. Like artifice, action is also a scalar characteristic. Just as artifice depends on an invention’s perceived degree of alteration from nature, action depends on an invention’s perceived degree of activity, and despite *Alice*’s computer-implementation, the method was still not active enough under § 101.

Indeed, both *Alice* and *Mayo* emphasize the scalar nature of patentability under § 101. Under *Mayo*’s two-step test, a court first determines whether a claim is directed to a law of nature, natural phenomenon, or abstract idea. As the *Alice* Court observed, however, all inventions are directed to one of the patent-ineligible concepts at some

level. The second and pivotal step is therefore to determine whether the claim demonstrates an “inventive concept” – that is, does the claim add elements “sufficient” and “enough” to establish patentable subject matter.

And to see that a sufficient “inventive concept” requires sufficient action, one need only look at how the Court treats computer-mediated elements with regard to patentability under § 101. Computers are widely regarded as “technological,” but much computer technology is “information technology,” and computer use primarily to manipulate data or other information thus adds no patentable action. Computer implementation in *Alice*’s method followed exactly this pattern – as the Court noted, the computer served only to create and maintain “shadow” accounts, obtain data, adjust account balances, and issue automated instructions. Accordingly, whether *Alice* claimed its invention as a method, system, or medium, the invention failed to provide an adequate “inventive concept” because it did not demonstrate sufficient action.

Under an artifice-plus-action standard, then, *Ultramercial*’s internet-mediated advertising method fails § 101. *Ultramercial* claimed a method of distributing copyrighted content for free in return for viewing an advertisement. The method is purely an exchange of informational and expressive content and performs no action whatsoever, and the claim’s cursory reference to the internet does nothing to add a “sufficient inventive concept.”

This is not to say, of course, that computer-implemented methods are never patentable subject matter. The *Alice* Court pointed out the difference between computers used purely for information processing and computers used to effect improvements in “any other technology or technical field,” or improvements in the function of the computer itself. *Diehr*’s computer-assisted rubber-curing process, for example, was adequately “technological” and therefore patentable, whereas the computer-implemented methods in *Benson* and *Flook* yielded “simply a number” and were therefore unpatentable. Per the view of the patent system, information processing is simply not “technological.” Similarly, computer or storage media that are distinguishable only by their informational or expressive content alone been held unpatentable if the content has no “functional” relationship with the device. The variable role that computers and other

tangible devices can thus play in an invention may be why the Supreme Court rejected the machine-or-transformation test as the sole test for methods under § 101.

And while the discussion here focuses mostly on business methods, note that the *Mayo* two-step test as stated in *Alice* covers all patent-ineligible abstract ideas, laws of nature, and even phenomena of nature – all are subject to the same requirement that a claimed invention add “enough” to constitute a patentable inventive concept. For claims directed to phenomena of nature, “enough” means artifice and meeting the age-old test of “markedly different characteristics from any found in nature.” For abstract ideas, laws of nature, mathematical algorithms, mental processes, and all other forms of information, “enough” means action and demonstrating function beyond merely informing.

As simple as artifice and action may sound, however, patentable subject matter clearly remains a difficult and ambiguous issue. The difficulty lies in the scalar quality of both artifice and action and deciding where along these spectra any given new invention falls. The requisite degree of artifice and action has also varied over time as the liberality of patentable subject matter has waxed and waned, creating yet further uncertainty. Most significantly, where the line between patentable and unpatentable lies along the spectrum is entirely unclear. There are no bright-line rules and no magical claim elements that can guarantee patentability under § 101.

The Court has often (but not always, as our host **Jason Rantanen has pointed out**) expressed a preference for a “functional” approach to patent law, however: that is, a preference for standards over hard and fast rules. As stated in *Bilski*’s rejection of the machine-or-transformation test, to do otherwise would “make patent eligibility ‘depend simply on the draftsman’s art.’” True, the artifice-plus-action standard requires courts to make many judgment calls about where along the spectrum of artifice and action any given invention must fall before it can be considered patentable technology, but standards are often vague. Besides, patent law frequently must address these kinds of line-drawing exercises. The non-obviousness, utility, enablement, and even written description requirements all force courts to make judgment calls.

Compounding the difficulty is the fact that § 101 determinations are in the end based on nothing more than intuition. As I and a number of others have noted, none of the pragmatic justifications commonly cited in support of § 101, such as preemption and disproportionality explain how patentable subject matter determinations are actually made or, more importantly, *why*. Thus, although artifice and action consistently appear in patentable subject matter, the combination does *not* necessarily reflect the most efficient or “correct” way to define patentable subject matter. Rather, the combination merely reflects an underlying intuition about what constitutes technology. (In *Intuitive Patenting*, a companion article to *What Is “Technology”?*, I argue that there simply are no more objective bases on which to make these determinations.) Unfortunately, patentable subject matter’s intuitive nature leaves courts effectively unable to specify how they reached their determinations. This often leads to language that sounds more like non-obviousness, novelty, or utility than to § 101, but in the end, artifice and action are better explanations for these otherwise perplexing references.