No. 13-255

In The

Supreme Court of the United States

WILDTANGENT, INC.,

Petitioner,

v.

ULTRAMERCIAL, LLC, *et al.*,

Respondents.

On Petition For A Writ Of Certiorari To The United States Court Of Appeals For The Federal Circuit

BRIEF OF PUBLIC KNOWLEDGE AS *AMICUS CURIAE* IN SUPPORT OF PETITIONER

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INTEREST OF *AMICUS CURIAE*[1]

Public Knowledge is a non-profit organization that is dedicated to preserving the openness of the Internet and the public's access to knowledge; promoting creativity through balanced intellectual property rights; and upholding and protecting the rights of consumers to use innovative technology lawfully. As part of this mission, Public Knowledge advocates on behalf of the public interest for a balanced patent system, particularly with respect to new and emerging technologies.

Public Knowledge has previously served as *amicus* in key patent cases. *E.g.*, *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S. Ct. 2238 (2011); *Bilski v. Kappos*, 130 S. Ct. 3218 (2010); and *Quanta Computer, Inc. v. LG Elecs. Corp.*, 553 U.S. 617 (2008).

[1] No counsel for a party authored this brief in whole or in part, and no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than *amicus curiae*, or its counsel, made a monetary contribution intended to fund its preparation or submission. Pursuant to Supreme Court Rule 37.2(a), *amicus* provided at least ten days' notice of its intent to file this brief, to counsel of record for all parties. The parties have consented to the filing of this brief and such consents are being submitted.

SUMMARY OF ARGUMENT

The Court should grant certiorari in this case to reject the reasoning of the Federal Circuit's decision below, which was rationally unjustified, factually mistaken, and systemically harmful to the aims of the patent system of promoting innovation and progress. The decision below held Claim 1 of U.S. Patent No. 7,346,545 ("the '545 patent") to satisfy the patentable subject matter requirement of 35 U.S.C. § 101, based on the Federal Circuit's unfounded assertion that the claim was sufficiently complex to bring it out of the realm of abstract ideas. This reasoning was legally and factually erroneous, contradicting this Court's precedent. Allowing such reasoning to stand would encourage abuse of the patent system and discourage innovation. Accordingly, the Court should intervene.

In brief, *amicus* argues the following: Claim 1 of the '545 patent, despite its extensive language, is actually directed to an abstract idea specified at a high level of generality; and the decision of the Federal Circuit mistook that claim to be directed to a complex, concrete process, due to clever patent drafting that obfuscated the true nature of the claim. Accordingly, to aid the Court in understanding that same claim, *amicus* has implemented the claimed process in a sixteen line computer program, shorter than a single page of this brief.[2] This computer

[2] The claim itself is too long to be printed on a single page of this brief. (*See* App. to Pet. Cert. 2a-3a.)

program demonstrates the simplicity of the process claimed by the '545 patent, despite that process being clothed in complex, technical language. The program further highlights that many of the supposedly substantive steps of the claim are conventional processes, pre-solution activity, or post-solution activity, of a character held by this Court not to confer patentability under § 101.

Were the erroneous, simplistic reasoning of the Federal Circuit allowed to stand, its decision would condone – even encourage – drafting claims that obscure simple ideas in impenetrable language. This would impair the public notice function of patents, and ultimately degrade the incentives for innovation and research that underlie the patent system. To avoid these negative consequences, the Court should grant certiorari in this case.

ARGUMENT

The question before this Court is whether an abstract idea can be rendered patentable by simply wrapping that idea in sufficiently technical language, even when that language is in fact insubstantial and immaterial. As the Court has long held, under 35 U.S.C. § 101, "abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work." *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *accord Bilski v. Kappos*, 130 S. Ct. 3218, 3255 (2010). Concerned that a simplistic, mechanical interpretation of this principle would "make patent eligibility depend simply on the draftsman's art," the Court has repeatedly elucidated that a claim to an abstract idea cannot be rendered patentable by "simply appending conventional steps, specified at a high level of generality." *See Mayo Collaborative Svcs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294, 1300 (2012); *accord Parker v. Flook*, 437 U.S. 584, 593 (1978).[3]

In deciding the case below, the Federal Circuit failed to apply these principles correctly, because it failed to recognize the abstractness, conventionality,

[3] For example, the addition of "conventional or obvious" "post-solution activity" cannot render an abstract idea patentable, because any "competent draftsman could attach some form of post-solution activity to almost any mathematical formula." *Flook*, 437 U.S. at 590. Similarly, "pre-solution activity" and "well-understood, routine, conventional activity" cannot render an otherwise ineligible claim eligible under § 101. *See Mayo*, 132 S. Ct. at 1298.

and generality of the claim elements it considered. Instead, in reviewing Claim 1 of U.S. Patent No. 7,346,545, the lower court baldly asserted that the claims "require intricate and complex computer programming" to produce "an extensive computer interface." (App. to Pet. Cert. 29a-30a.) On the basis of that unsubstantiated conclusion, the decision below held the claim patentable under § 101.

If the Federal Circuit had given sufficient scrutiny to the claims at issue and faithfully applied the Court's precedents, it would have recognized that the claims described only three activities "specified at a high level of generality." The first of these activities is the idea of offering free access to a media product such as a video or text in exchange for viewing an advertisement. *See* '545 Patent col.8 ll.24-42. This is essentially the "age-old idea that advertising can serve as currency" that even the Federal Circuit suggested was an abstract idea. (*See* App. 28a.) The second is the conventional act of accounting and payment for the display of the advertisements. *See* '545 Patent col.8 ll.12-19 & 43-48. The third is the conventional pre-solution activity of receiving the media product and offering the product for purchase. *See id.* col.8 ll.7-11 & 20-23.

The Federal Circuit failed to apprehend the generality and abstractness of the claim, and the Court should grant certiorari to correct that error. *Amicus* will demonstrate how simple and abstract the claimed invention is, using a sixteen-line computer program that implements the features of the claim.

The computer program will help illustrate the basic and abstract nature of the claim steps, despite the complex appearance of the claim language, and demonstrate that the three-activity analysis of above is correct. Finally, *amicus* will highlight the harmful effects that would arise should the Federal Circuit's erroneous reasoning be allowed to stand.

I. Claim 1 of the '545 Patent Does Not Require Intricate or Complex Computer Programming, but Rather Can Be Implemented in Sixteen Lines of Computer Code

In finding Claim 1 of the '545 patent eligible under § 101, the Federal Circuit relied on unsubstantiated assertions that the claimed process would "require intricate and complex computer programming" to produce "an extensive computer interface." (App. 29a-30a.) Thus, the Federal Circuit found the claim to be "a practical application of the general concept" that was "not so manifestly abstract" to be unpatentable. (App. 36a (internal quotation marks omitted).)

To disprove this and other assertions of the decision below, *amicus* has implemented the functionality of the claim in a functional computer program, appended to this brief. *See infra* Appendix A, at app. p. 1. The program consists of sixteen lines of computer code in the JavaScript programming language, one that has been well known to computer programmers since at least 1999. *See id*.

Claim 1 of the '545 patent covers a "method for distribution of products." The claim includes eleven steps. However, as explained previously, the claim essentially reduces to three activities, none of which render the claim patentable under § 101. For the Court's convenience, the full text of the claim is reprinted in an appendix to this brief. *See infra* Appendix B, at app. p. 6.[4]

The first activity described in the claim is the idea of offering a media product for free to a user, in exchange for that user first viewing a sponsor message (i.e., advertisement). This idea encompasses the fifth through ninth steps of the claim. Despite the length of the text of these steps in the claim, the fact that the computer implementation reduces them to five simple lines of code (lines 8-12 of the program, *see infra* app. pp. 4-5) illustrates that these five steps are nothing more than a simple, abstract idea.

The second activity described in the claim is accounting and payment for the display of advertisements. This activity encompasses the second, tenth, and eleventh steps of the claim. Again, these three steps comprise fifteen lines of text in this brief, but have been implemented in a mere three lines of the program (lines 6-7 and 13, *see infra* app. pp. 3-5) demonstrate that these steps are "conventional steps,

[4] The Court should observe, in passing, that the claim requires almost two full pages of this brief to print, while the computer program fits on about half a page.

specified at a high level of generality" in a manner not held by this Court to confer patentability. *See Mayo*, 132 S. Ct. at 1300.

The third activity is receiving the media product and offering it for purchase, restricting access so that others cannot access it without paying or entering into the exchange described above. This activity is described at the first, third, and fourth steps of the claim, which comprise ten lines of text but one line of code (line 15, *see infra* app. p. 5). Accordingly, this activity is also "specified at a high level of generality" in a manner that should not render the claim patentable.

Thus, the illustrative computer program demonstrates that the language of Claim 1 of the '545 patent, as dense and technical as it may appear, actually describes very simple, basic, abstract concepts at a high level of generality, which require no "intricate and complex computer programming to implement."

II. Because of the Cloak of Dense, Technical Claim Language, the Federal Circuit Misapprehended the Abstractness and Generality of the Claim

Due to that dense and technical language used in the claim, the Federal Circuit mistakenly failed to apprehend the abstract, highly generalized nature of the claims, causing the decision below to misapply this Court's precedents.

The fact that the claim can be implemented in sixteen lines of code contradicts the view that the claim requires "intricate and complex programming" or an "extensive computer interface." The Federal Circuit also asserted that "the claim appears far from over generalized, with eleven separate and specific steps with many limitations and sub-steps in each category." (App. 33a.) But the text of the program (93 words) is shorter than the text of the claim itself (349 words) by a substantial margin, demonstrating that the "many limitations and sub-steps of each category" are mere verbosity rather than meaningful limitations.

The court further relied on figures in the specification to conclude that the claimed process was "not some disembodied abstract idea" but rather "a specific application of a method implemented by several computer systems, operating in tandem, over a communications network." (App. 30a.) But the provided program can be operated on a single computer, which rebuts the suggestion that the claim requires "several computer systems, operating in tandem, over a communications network."

Understandably, the length and technical wording make the claims of the '545 patent appear substantial and complicated. But verbosity does not confer patentability. It is the task of this Court and every court to pierce through this language and determine the actual scope of the claim. When that task is executed on Claim 1 of the '545 patent, it is evident that the claim is not directed to a concrete,

specific implementation. Rather, the claim, however obfuscated by the legal wording of patent drafting, is directed to an abstract idea.

III. Permitting the Patentability of Such Claims Would Encourage Abuse of the Patent System, Impair Public Notice, and Reduce Innovation

The Federal Circuit's decision below causes serious and widespread problems, which the Court could correct by granting certiorari in this case. Those problems include (1) encouragement of unnecessarily complicated claim drafting, (2) ineffectiveness of the public notice function patents are intended to serve, and (3) obstruction of research and innovation.

With regard to claim drafting, the Court has cautioned that interpretation of § 101 should not "depend simply on the draftsman's art" because such interpretation "would ill serve the principles underlying the prohibition against patents for 'ideas.'" *Flook*, 437 U.S. at 593. The Federal Circuit's reasoning below does the opposite: the technically-worded drafting of the '545 patent led that court to believe that the claim required "intricate and complex computer programming," while in reality the claim can be implemented in computer code shorter than a page of this brief. The decision below "exalts form over substance" contrary to the Court's warning in *Flook*. *See id.* at 590. Were that reasoning allowed to stand, then the Court's apprehension that a "competent draftsman

could attach some form of post-solution activity to almost any mathematical formula" to render patentable any claim to an abstract idea, *id.*, would come true.

Steps 8 and 9 of the claim reflect a particular worry. As explained above, these two steps of the claim reflect a simple tautology, namely that interactive things are provided interaction, and non-interactive things are not. Were the Court to hold that this feature of the claim rendered it patentable, then *any* claim could be rendered patentable, simply by taking an element of an unpatentable claim, dividing that element into two categories, and describing each of the categories separately.

The Court has specifically advised courts to inquire under § 101 as to whether claims have "additional features that provide practical assurance that the process is more than a drafting effort designed to monopolize the law of nature itself." *Mayo*, 132 S. Ct. at 1297. The Federal Circuit has failed to do this, and the Court should intervene to correct this error.

Second, the Federal Circuit's reasoning would undermine the public notice function that patents are intended to serve. Patents are meant to inform the public about new inventions through their specifications, and spell out clear legal boundaries through their claims. These functions advance the Constitutional purpose of patents, to "promote the Progress of Science and the useful Arts." U.S. Const. art. 1, § 8, cl. 8.

A failure to invalidate wordily drafted patents directed to simple, abstract concepts would impair both of these functions. First, as explained above, patent applicants would be encouraged to add complexity to their claim language in an effort to satisfy § 101. This would make it difficult for members of the public to easily understand the metes and bounds of such claims. Second, patent applicants would be encouraged to file for and obtain patents on abstract ideas, because they would be able to rely on obfuscatory language to ensure patent eligibility. Unnecessarily complicated and verbose claims, such as the one in this case, would become the norm, whittling away at the public notice function that patents are intended to serve.

Ultimately, the combination of these and other effects of the Federal Circuit's reasoning in this case would lead to decreased innovation, contrary to the aims of the patent system. The Court has long recognized that abstract ideas, laws of nature, and natural phenomena are not patentable because patents on such subject matter would unduly impede innovation. In *Bilski*, the Court justified these principles, stating that "[t]he concepts covered by these exceptions are 'part of the storehouse of knowledge of all men . . . free to all men and reserved exclusively to none.'" 130 S. Ct. at 3225 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)). *Mayo* reiterated this same principle, stating that "abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work," so

that "monopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it." 132 S. Ct. at 1293 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)) (internal quotation marks omitted).

Computer software often involves complex systems incorporating innumerable ideas. One of the most widely used software programs, the Linux operating system kernel, which is used on 31.1% of webservers today, uses 15 million lines of code.[5]

If it were permissible to obtain a patent to a simple, abstract idea reducible to sixteen lines of code, then that patent would represent an enormous threat to much of modern technology and the information revolution – as such patents already do today. *See generally* James Bessen & Michael J. Meurer, *Patent Failure* (2008). Software such as the Linux kernel could face exposure to thousands or millions of patents on basic ideas, and that risk would be a major disincentive to the development of new technologies. Such patents without question would tend to impede innovation more than it would tend to promote it.

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[5] *See* W3Techs Web Technology Surveys, *Usage Statistics and Market Share of Unix for Websites*, http://w3techs.com/technologies/details/os-unix/all/all (last visited Sept. 16, 2013); Thorsten Leemhuis, *What's New in Linux 3.10* (July 1, 2013), http://www.h-online.com/open/features/What-s-new-in-Linux-3-10-1902270.html.

This is the threat that claims to simple, abstract ideas, such as Claim 1 of the '545 patent, represent. This is the threat that the Federal Circuit failed to see, due to the confounding language of the claim and that court's mistaken understanding of that claim. And this is the threat that this Court should prevent, by recognizing that claim for what it is, an abstract idea clothed in a thin garb of technical argot, and granting certiorari to correct this significant and harmful error.

CONCLUSION

For the foregoing reasons, the Court should grant certiorari in this case.

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APPENDIX A

The following computer code, written in the JavaScript programming language and executable on any standard computer with an ordinary Internet browser, implements Claim 1 of the '545 patent:

```
1.  var i, selected_ad;
2.  var ads = [
3.     { text: "[Ad 1]", query: false, cycles: 0, max: 3 },
4.     { text: "[Ad 2]", query: true, cycles: 0, max: 4 }
5.  ];
6.  for (i = 0; !(ads[i].cycles < ads[i].max); i++);
7.  selected_ad = ads[i];
8.  if (window.confirm("View ad or buy?")) {
9.     window.alert(selected_ad.text);
10.    if (selected_ad.query)
11.       window.confirm("[Query text]");
12.    window.alert("[Media product]");
13.    selected_ad.cycles = selected_ad.cycles + 1;
14. } else {
15.    window.location = "[Link to purchase product]";
16. }
```

An operational version of this program is available at http://www.sbf5.com/~cduan/pk/amicus.html. The program is written using standard computer code and conventional programming techniques dating back to 1999.[6] One reasonably skilled in computer

[6] *See* ECMA, *Standard ECMA-262: ECMAScript Language Specification* (3d ed. 1999), *available at* http://www.ecma-international.org/publications/standards/Ecma-262-arch.htm (noting, in Brief History section, that the standard is based on Netscape JavaScript); David Flanagan, *JavaScript: The Definitive Guide*

(Continued on following page)

programming could easily understand it, but to aid the Court, a detailed exposition follows.

The following table summarizes the application of the steps of the claim to the computer program:

Step	**Description**	**Program Line(s)**
1	Receiving media products	15
2	Selecting a sponsor message	6-7
3	Providing product for sale	15
4	Restricting access to product	15
5	Offering product without charge	8
6	Receiving request to view message	8
7	Facilitating display of message	9
8	If message is not interactive, allowing access to product	12
9	If message is interactive, presenting query	10-12
10	Recording transaction event	13
11	Receiving payment	Post-solution activity

§§ 13.2, .8, at 231-33, 245-46, *available at* http://oreilly.com/catalog/jscript3/chapter/ch13.html (describing the functions "window. alert," "window. confirm," and "window. location"). The priority date of the '545 patent is May 27, 2000. This fact is not being used to demonstrate non-novelty or obviousness, but rather to show that the programming techniques described were "well-understood, routine, conventional activity, previously engaged in by those in the field." *Mayo*, 130 S. Ct. at 1298.

```
2.    var ads = [
3.       { text: "[Ad 1]", query: false, cycles: 0, max: 3 },
4.       { text: "[Ad 2]", query: true, cycles: 0, max: 4 }
5.    ];
```

Lines 2-5 create a basic database of two advertisement records. Each advertisement record includes text to be displayed as an advertisement ("text"), a count of the number of times the advertisement has been displayed ("cycles"), a maximum number of times the advertisement is to be displayed ("max"), and an indicator of whether a query is to be presented to the user after presentation of the advertisement ("query"). Thus, lines 2-5 are the data used by the program to display advertisements. Unsurprisingly, additional advertisement records can easily be added.

```
6.    for (i = 0; !(ads[i].cycles < ads[i].max); i++);
7.    selected_ad = ads[i];
```

These lines select one of the advertisements from the database. Line 6 cycles through each of the advertisement records, searching for one that has been displayed fewer than the maximum number of times ("ads[i].cycles < ads[i].max"). The selected advertisement is placed into a storage record named "selected_ad" at line 7.

Although these two lines appear the most complex in the program code, they in fact use a programming

pattern that is well known to any experienced computer programmer.[7]

8. if (window.confirm("View ad or buy?")) {

This line presents the user with the option to either purchase a media product, or to view an advertisement first. The command "window.confirm" presents a window with two buttons, allowing the user to select one of these options. Depending on which option the user selects, the program will continue to either line 9 or line 15.

9. window.alert(selected_ad.text);

Line 9 is executed if the user opts to view an advertisement. The program retrieves the text of the advertisement selected at line 7 ("selected_ad.text"), and shows that text to the user through the "window.alert" command.

10. if (selected_ad.query)
11. window.confirm("[*Query text*]");

As mentioned previously, some advertisements are configured to present a query to the user, while others are not configured so. Line 10 determines whether the currently selected advertisement requires presentation of a query. If so, then at line 11

[7] *See, e.g.*, ECMA, *supra*, at 65 (describing the "for" statement).

the query text is presented using the "window.confirm" command described above.

12. window.alert("[*Media product*]");

After the advertisement has been displayed at line 9, and any required query has been presented at lines 10 and 11, the program displays the media product itself.

13. selected_ad.cycles = selected_ad.cycles + 1;

Finally, at line 13, after the advertisement has been displayed, the advertisement record is updated to reflect the display of the advertisement, by increasing the counter of the number of displays.

14. } else {
15. window.location = "[*Link to purchase product*]";
16. }

Lines 14-16 are executed if, at line 9, the user had opted to purchase the media product. In that case, the user is sent to a location where the media product may be purchased. The command "window.location=" directs the computer to access that location so that the user can purchase the media product.

The step of receiving payment is not implemented in this code, primarily due to the variety of ways in which payment is transmitted. However, it is noted that the claim does not require electronic transmission of payment, so that step of the claim might be performed external to any computer systems.

APPENDIX B

The following is Claim 1 of U.S. Patent No. 7,346,545:

1. A method for distribution of products over the Internet via a facilitator, said method comprising the steps of:

a first step of receiving, from a content provider, media products that are covered by intellectual-property rights protection and are available for purchase, wherein each said media product being comprised of at least one of text data, music data, and video data;

a second step of selecting a sponsor message to be associated with the media product, said sponsor message being selected from a plurality of sponsor messages, said second step including accessing an activity log to verify that the total number of times which the sponsor message has been previously presented is less than the number of transaction cycles contracted by the sponsor of the sponsor message;

a third step of providing the media product for sale at an Internet website;

a fourth step of restricting general public access to said media product;

a fifth step of offering to a consumer access to the media product without charge to the consumer on the precondition that the consumer views the sponsor message;

a sixth step of receiving from the consumer a request to view the sponsor message, wherein the consumer submits said request in response to being offered access to the media product;

a seventh step of, in response to receiving the request from the consumer, facilitating the display of a sponsor message to the consumer;

an eighth step of, if the sponsor message is not an interactive message, allowing said consumer access to said media product after said step of facilitating the display of said sponsor message;

a ninth step of, if the sponsor message is an interactive message, presenting at least one query to the consumer and allowing said consumer access to said media product after receiving a response to said at least one query;

a tenth step of recording the transaction event to the activity log, said tenth step including updating the total number of times the sponsor message has been presented; and

an eleventh step of receiving payment from the sponsor of the sponsor message displayed.