Via e-mail: AB98.comments@uspto.gov

# Comments regarding Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility [Fed. Reg. 71, No 114; Docket No. PTO-2005-0012, RIN 0851-AB98]

By Walter G. Hanchuk and John Kheit<sup>1</sup>

The Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility ("Interim Guidelines")<sup>2</sup> issued by the United States Patent & Trademark Office (USPTO) go too far in limiting the scope of patentability as defined in the patent act<sup>3</sup>. Just as the previous USPTO attempt at spurning patentability by unreasonably seeking to limit patentable subject matter to "technological arts"<sup>4</sup> caused unnecessary trouble to countless inventors and eventual correction by the Board of Appeals,<sup>5</sup> it seems that the very body that should be welcoming of any innovation "under the sun that is made by man"<sup>6</sup> is the very foe of its own purpose as an agency "[t]o promote the progress of science and useful arts."<sup>7</sup> Under the proposed guidelines, the USPTO, once again, seeks to limit the scope of patentable subject matter beyond the clear language of the patent act:

Whoever invents or discovers *any new and useful process, machine, manufacture, or composition of matter*, or any new and useful improvement thereof, may obtain a patent therefor; subject to the conditions and requirements of this title.<sup>8</sup> (emphasis added).

Instead of the Patent Office's constant struggle against well established laws<sup>9</sup> on the standards of patentability, that such inventions need only be man-made<sup>10</sup> and useful<sup>11</sup>, we put forth the

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\_20051026.pdf (November 22, 2005).

 $^{10}$  *Id*.

<sup>11</sup> 35 U.S.C. § 101.

<sup>&</sup>lt;sup>1</sup> This article represents positions put forth by Walter G. Hanchuk and John Kheit, and is not known to be the opinion of their employer and/or clients. Walter G. Hanchuk is a partner and John Kheit is an associate at Chadbourne & Parke, LLP.

<sup>&</sup>lt;sup>2</sup> Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, United States Patent & Trademark Office, at

<sup>&</sup>lt;sup>3</sup> 35 U.S.C. § 101 (2000).

<sup>&</sup>lt;sup>4</sup> Ex Parte Bowman, 61 USPQ 2d 1669, 1671 (P.B.A.I. 2001).

<sup>&</sup>lt;sup>5</sup> Ex Parte Lundgren, \_ F.3d \_, 2004 WL 3561262 (Fed. Cir. 2004).

<sup>&</sup>lt;sup>6</sup> Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980).

<sup>&</sup>lt;sup>7</sup> U.S. Const., Art. I, §8, cl. 8.

<sup>&</sup>lt;sup>8</sup> 35 U.S.C. § 101.

<sup>&</sup>lt;sup>9</sup> Chakrabarty at 309.

following positions and standards that comport with well established patent law principles, which we believe better promote the progress of sciences and useful arts:

- A) That, first and foremost, the USPTO change its focus from issues of patentable subject matter to that of enhancing the quality of patents that it issues;
- B) That the USPTO properly follow the adoption of principles espoused in *Lundgren*, namely the death of the "technological arts" standard, and similarly, that the USPTO should not, once again, go too far in introducing arbitrary semantic manipulations in the Interim Guidelines that change the meanings of long established principles (i.e., changing the meanings of words (such as "wherein")); and
- C) Provide specific comments to questions put forth in the Federal Register.<sup>12</sup>

In the context of our comments that follow, we note at the outset that, it is our view, belief and indeed observation that as a general matter innovation arising in the financial service industry and relating to the relative ordering of economic interests and activities between parties is inherently useful.<sup>13</sup> Furthermore, it is our view that financial service innovations are clearly within the purview of 35 U.S.C. § 101 which identifies patentable subject matter as "*any* ... useful process, machine, manufacture, or composition of matter."<sup>14</sup> Indeed, all four of the major financial service sector industry associations took great pains to articulate the utility of innovations in the financial service sector in their amicus brief to the United States Supreme Court in *eBay v. MercExchange*.<sup>15</sup>

Specifically, the Amicus Brief notes:<sup>16</sup> Today "more Americans than ever before rely on the markets"<sup>17</sup> and "if [such market structure systems are] disrupted, [it] can have enormous external effects on the nation's economy."<sup>18</sup> Therefore, managing risk is useful. Quantifying risk is useful.<sup>19</sup> Transactional structures are useful.<sup>20</sup> The nation has grown to depend on such market and information technology systems.<sup>21</sup>

As such it is beyond question that financial service related inventions have proved indispensable in furthering the nation's economy, and increasing the nations wealth and productivity,<sup>22</sup> The question of their usefulness and, thus, of them being items that fall within the bounds of statutory

- <sup>18</sup> *Id.* at 19.
- <sup>19</sup> *Id.* at 20.
- <sup>20</sup> *Id.* at 19.
- <sup>21</sup> *Id*. at 7.
- <sup>22</sup> Id.

<sup>&</sup>lt;sup>12</sup> Federal Register, Vol. 70, no. 243 75452 (December 20, 2005).

<sup>&</sup>lt;sup>13</sup> Amicus Brief for Securities Industry Association in Support of Petitioner eBay at 7-12, eBay v. MercExchange, 126 S.Ct. 1837, No. 05-130 (2006).

<sup>14 35</sup> U.S.C. § 101. (emphasis added).

<sup>&</sup>lt;sup>15</sup> eBay v. MercExchange, 126 S.Ct. 1837, No. 05-130 (2006).

<sup>&</sup>lt;sup>16</sup> Amicus Brief for SIA at 7-12.

<sup>&</sup>lt;sup>17</sup> *Id*. at 8.

subject matter<sup>23</sup> has been laid to rest on so many occasions that it borders on willful ignorance to see §101 rejections during the prosecution of patent applications merely because an invention is directed to the financial services sector.

<u>A. The USPTO should change focus from patentability requirements to quality assessment</u> It is understood that there are many applications for patents that may be of questionable quality, but it is believed that the USPTO is misguided in using §101 as tool to try and control patent quality. If the USPTO's goal is to ensure that the patents it issues are of a high quality, it will be better served in looking towards §§ 102 and 103.

In a recent Supreme Court case where patentable subject matter was put into question, despite three dissents, the Supreme Court dismissed a writ of certiorari as improvidently granted. In *LabCorb v. Metabolite*, claims regarding a method dealing with a correlation that was viewed by the dissent as "natural phenomenon" were <u>not</u> found to be directed toward unpatentable subject matter.<sup>24</sup> This decision highlights that although there may be questions of quality regarding the grant of certain patents, the qualification of what constitutes patentable subject matter was not a question that would be entertained by the current Supreme Court.

As such, we also endorse a thorough, compelling and we believe legally correct analysis of the *Lundgen*<sup>25</sup> decision in light of the *State Street*<sup>26</sup> case and its progeny as set forth in the recent IDEA law review article *Patent Law 101: Does a Grudging Lundgren Panel Decision Mean That the USPTO Is Finally Getting the Statutory Subject Matter Question Right?*.<sup>27</sup> Accordingly, we quote from the "IDEA" article, the SIA amicus brief<sup>28</sup> and the seminal work of Professors Jaffe and Lerner, INNOVATION AND ITS DISCONTENTS<sup>29</sup> (including all quotes for ease of reference) in making our comments below.

As quoted from the IDEA article:<sup>30</sup>

[T]he USPTO's focus on the statutory subject matter requirement of § 101 to stem the tide of patents affecting inventors (e.g., such as those that create great value in the financial services industry) should be abandoned for two reasons. First, creating new

<sup>27</sup>IDEA, vol. 46, no. 4, 1.

<sup>28</sup> Amicus Brief for SIA 1 et seq.

<sup>&</sup>lt;sup>23</sup> Chakrabarty at 309; State Street Bank and Trust Co. v. Signature Financial Group, Inc., 149 F. 3d 1368, 1373 (Fed.Cir. 1998). (cert. denied State Street Bank and Trust Co. v. Signature Financial Group, Inc., 525 U.S. 1093 (1999); Ex Parte Lundgren, \_F.3d \_, 2004 WL 3561262 (Fed. Cir. 2004).

<sup>&</sup>lt;sup>24</sup> LabCorp v. Metabolite Laboratories, Inc., 548 U.S. \_\_\_\_\_ No.04-607 (2006); see http://www.supremecourtus.gov/opinions/05pdf/04-607.pdf (June 22, 2006).

<sup>&</sup>lt;sup>25</sup> *Ex Parte Lundgren*, \_ F.3d \_, 2004 WL 3561262.

<sup>&</sup>lt;sup>26</sup> State Street Bank and Trust Co. v. Signature Financial Group, Inc., 149 F. 3d 1368, 1373 (Fed.Cir. 1998). (cert. denied State Street Bank and Trust Co. v. Signature Financial Group, Inc., 525 U.S. 1093 (1999).

<sup>&</sup>lt;sup>29</sup> Adam B. Jaffe & Josh Lerner, *INNOVATION AND ITS DISCONTENTS*, at 203-205 (2004).

<sup>&</sup>lt;sup>30</sup> IDEA, vol. 46, no. 4, at 27-32.

exceptions to patentable subject matter not warranted by the Act or case law only serve to undermine the USPTO's credibility. Further, such exceptions deny patent protection to truly innovative and useful methods and processes based largely on the industry affected. Special rules create special problems, particularly when a more general fix is required.<sup>31</sup> Second, and even more fundamentally, the PTO's approach does not solve the problem – any competent draftsperson can incorporate technology in the claims or simply craft method, apparatus, and/or other claim variants covering the same essential subject matter. Instead, the USPTO should shift its focus to ensuring that only quality patents are granted. In order to do that, the USPTO needs to better utilize the tools already at its disposal and be provided additional resources and meaningful input to realize this goal.

A real concern<sup>32</sup> with the patent system (for example, those patents affecting the financial services industry) is the general feeling that the patents issued for business methods and systems are not truly innovative. "Quality" is a profound problem with dire consequences because if patent applications are not measured properly against available prior art, a monopoly right is conferred that takes from the public what competitors had assumed was freely available subject matter. However, once the focus is properly placed on the quality of the patents it issues in this space, it becomes clear that different tools, 35 U.S.C §§ 102 and 103, readily exist for the PTO to ensure such quality.

While the statutory tools are there, an adequate prior art database relating to financial services and products is lacking.<sup>33</sup> Of course, one direct reason for the lack of an adequate database is that few financial institutions availed themselves of patent protection prior to *State Street*. In addition, there has been a corresponding dearth of printed publications and trade media for examiners to even locate relevant art, let alone apply it. This problem is exacerbated by the historical tendency of financial institutions to protect their proprietary systems and methods with confidentiality and non-disclosure agreements.<sup>34</sup>

The proposals contained in the Patent Reform Act of 2005 constitute a meaningful opportunity for the USPTO to shift its focus away from § 101 to issues involving §§ 102 and 103. As an initial matter, the ability to institute an opposition proceeding after the patent is issued combined with the ability for third parties to provide the USPTO with prior art and an explanation of its relevance should go a long way towards ensuring that the patents emerging from the process are quality patents. More importantly, however,

<sup>&</sup>lt;sup>31</sup> Jaffe & Lerner at 203-205 (noting the "grave danger" of special rules for differing subject matter disciplines).

<sup>&</sup>lt;sup>32</sup> There is a school of thought which proposes that all patents, regardless of their novelty and usefulness, are somehow bad for certain sectors of the economy. While that topic is beyond the scope of this article, the authors subscribe to views expressed by Jefferson ["The Act embodied Jefferson's philosophy that 'ingenuity should receive a liberal encouragement'" *Chakrabarty*, 447 U.S. at 308-09 (quoting 5 Writings of Thomas Jefferson, at 75-76 (Wash. ed. 1871))].

<sup>&</sup>lt;sup>33</sup> See Jaffe & Lerner, supra, n. 30 at 145-49 (discussing "Special Problems of Emerging Industries").

<sup>&</sup>lt;sup>34</sup> One potential source of prior art relevant to financial service and product patents are registration statements required to be filed with the Securities and Exchange Commission. Unfortunately, there has been no efficient way to identify such prior art, let alone provide it to an examiner.

the proposed reforms should restore a measure of balance and perceived fairness to the system by allowing third-parties to provide their prior art to the PTO with same degree of control over how it is applied.

<u>B. End to "technological arts" standard and other sua sponte non-statutory USPTO doctrines</u> As the USPTO is well aware, in *Ex Parte Lundgren*,<sup>35</sup> the Board concluded that for a claim to pass muster under § 101, there was no justification for the "technological arts" standard in the case.<sup>36</sup> As such, we agree that it was inappropriate for the USPTO to sua sponte create, enforce, and burden inventors and applicants by conjuring up this standard in a misguided attempt to improve the quality of issued patents without statutory authority.<sup>37</sup>

However, we note that the USPTO is once again, sua sponte, decreeing and adding a new standard upon patentability. In the Interim Guidelines, the USPTO arbitrarily changed the meanings of long established words (such as "wherein"). On page 6 and 7 of the Interim Guidelines, the USPTO sets patent claim semantics on its head. With regard to "language that may raise a question as to … limiting effect," the USPTO notes that the following language "suggests or makes optional but … does not limit the scope of a claim or claim limitation":

- (A) statements of intended use or field of use,
- (B) "adapted to" or "adapted for" clauses,
- (C) "wherein" clauses, or
- (D) "whereby" clauses.

It has been the tradition to introduce dependant claims with "wherein" for well over 30 years. Are we to imagine all those property rights in dependant claims are merely suggestions or optional? That such issued and pending dependant claims, in reality, are not limited in scope from the independent claims from which they depend? In reality, this whimsical and capricious fiat of introducing a magic change in meaning of terms would be easily worked around with a few synonyms (i.e., words such as "including" or "having"). Yet there is no real reason for such an arbitrary change in interpreting such language other than to penalize and force many applicants to amend pending claims and thereby lose doctrine of equivalents rights therein. As such, we propose that the USPTO remove such arbitrary semantic manipulations that change the meanings of long established words, as such changes will affect the value of countless applicants' claims and intellectual property, and instead examine all submitted claim elements as is required of them.

<sup>&</sup>lt;sup>35</sup> *Ex Parte Lundgren*, \_ F.3d \_, 2004 WL 3561262 (Fed. Cir. 2004).

<sup>&</sup>lt;sup>36</sup> *Id*. at \*4.

<sup>&</sup>lt;sup>37</sup> John A. Squires & Thomas S. Biemer, *Patent Law 101: Does a Grudging Lundgren Panel Decision Mean That the USPTO Is Finally Getting the Statutory Subject Matter Question Right*?, IDEA, vol. 46, no. 4, 1, 24-27 (2006).

# C. Comments to Federal Register Questions

We believe that with regard to the Federal Register questions<sup>38</sup>, all our positions may be summarized as: inventions fall within the statutory patentability requirements so long as they are useful,<sup>39</sup> man-made,<sup>40</sup> and do not solely describe a law of nature or natural phenomena.<sup>41</sup> Our comments to the questions follow:

### Question 1

With regard to question (1) and whether a "distinction between physical transformation and data transformation is a appropriate in the context of the Patent Subject Matter Eligibility Interim Guidelines?" Our position is no, it is not appropriate. However, our position does not accept that there must be a choice of either or, rather that no physical transformation is required, and there is no requirement to determine if a data transformation produces a useful, concrete and tangible result. None of this is required by the plain meaning of the statute that states that "*any* … *useful process*, *[or] manufacture*" is patentable.<sup>42</sup> Much like the USPTO's previous requirement for "technological arts," such additional requirements impermissibly add requirements to the patent act. There is no requirement that patentable subject matter require a physical transformation, be concrete or tangible.

The Interim Guidelines propose to limit inventions to those that produce "useful, tangible, and concrete results."<sup>43</sup> While on first blush this seems to be a reasonable requirement, the guidelines then go on to assert that "data structures,"<sup>44</sup> "nonfunctional descriptive material,"<sup>45</sup> and "signals"<sup>46</sup> are to be deemed unpatentable subject matter per se. This highlights that the Court, in its State Street decision and elsewhere did not espouse or find that a test for patentability was limited to the conjunctive "useful, concrete and tangible result"<sup>47</sup> test that the Interim Guidelines are adopting, but instead put forth a disjunctive test of "useful, concrete or tangible."<sup>48</sup>

As we believe that data structures and signals support the progress of science and useful arts and would otherwise be excluded, we propose that the USPTO adopt the "useful, concrete <u>or</u>

<sup>&</sup>lt;sup>38</sup> Federal Register, Vol. 70, no. 243 75452 (December 20, 2005).

<sup>&</sup>lt;sup>39</sup> 35 U.S.C. § 101.

<sup>&</sup>lt;sup>40</sup> *Chakrabarty* at 309.

<sup>&</sup>lt;sup>41</sup> *Diamond v. Diehr*, 450 U.S. 175, 185, 209 (1981).

<sup>&</sup>lt;sup>42</sup> 35 U.S.C. § 101. (emphasis added).

<sup>&</sup>lt;sup>43</sup> Interim Guidelines at 19.

<sup>&</sup>lt;sup>44</sup> *Id*. at 52.

<sup>&</sup>lt;sup>45</sup> *Id.* at 54.

<sup>&</sup>lt;sup>46</sup> *Id*. at 55.

<sup>&</sup>lt;sup>47</sup> State Street, 149 F. 3d 1368, 1373.

<sup>&</sup>lt;sup>48</sup> "Similarly, in *Arrhythmia Research Technology Inc. v. Corazonix Corp.*, 958 F.2d 1053, 22 USPQ2d 1033 (Fed.Cir.1992), we held that the transformation of electrocardiograph signals from a patient's heartbeat by a machine through a series of mathematical calculations constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it corresponded to a *useful, concrete <u>or</u> tangible* thing--the condition of a patient's heart." *State Street*, 149 F. 3d at 1373 (emphasis added).

tangible" standard for the patentability, and as such support protection for data structures and signal based inventions.

As the Supreme Court noted in *Diamond v. Chakrabarty*, the patent act will protect any innovation "under the sun that is made by man."<sup>49</sup> Yet the Interim Guidelines arbitrarily seek to make man-made data structures and signal based inventions, no matter how innovative, non-patentable subject matter. As an example as to why physical transformation or "useful, tangible, and concrete" limitations against data structures and signals are arbitrarily limiting, one need not look further than one of the most valuable inventions of the modern era: the internet itself. The internet is considered to be the invention of Vinton Gray Cerf<sup>50</sup> and Robert E. Kahn.<sup>51</sup> The internet is a rather abstract construct. As noted by Dr. Kahn, it is more a "logical construct" than a discrete, tangible or concrete thing:

With the appearance of so many new technological capabilities, we are witness today to a series of concerns as to what the Internet is, where it has been and where it is headed. To many, it is the physical realization of a powerful communication system consisting of routers, switches, computers and digital communication lines that are interconnected to move packets of information reliably and efficiently from one place to another. However, there is another more powerful concept of the Internet. In this latter view, *the Internet is a logical construct*, independent of its component parts. This idea, combined with the notion of an open-architecture, is arguably the most important principle of the original Internet design.<sup>52</sup>

It is difficult to define the internet physically. The internet is comprised of many types of logical nodes (e.g., computers, laptops, routers, Personal Digital Assistants ("PDA"), TiVos, printers, network storage devices, and countless other types of devices—no one of which is required for its operation) each having numerous types of interconnections (e.g., Ethernet, token ring, dial-up, wireless, and countless other types of connections—similarly, no one of which is required for its operation). These nodes are constantly being connected and disconnected from one another, and as such, it is difficult to point to any one part and say "that is 'the' internet." For example, as laptops are turned on and off in various locations, the internet itself changes. As a consequence, if you were to send an instant message<sup>53</sup> to a friend using laptop at one point when it was connected from the internet, sending an instant message to its previous address would result in a failure to communicate with that now disconnected laptop. As such, the internet is not a fixed, tangible nor is it a concrete item. Yet it certainly is useful.

<sup>&</sup>lt;sup>49</sup> *Chakrabarty* at 309.

<sup>&</sup>lt;sup>50</sup> Vint Cerf, wikipedia.org at http://en.wikipedia.org/wiki/Vinton\_G.\_Cerf (visited on July 30, 2006).

<sup>&</sup>lt;sup>51</sup> Bob Kahn, wikipedia.org at http://en.wikipedia.org/wiki/Bob\_Kahn (visited on July 30, 2005).

<sup>&</sup>lt;sup>52</sup> Statement from Corporation for National Research Initiatives by Dr. Robert E. Kahn President & CEO for World Summit on the Information Society, International Telecommunication Union at http://www.itu.int/wsis/tunis/statements/docs/ps-cnri/1.html (November 16, 2005). emphasis added).

<sup>&</sup>lt;sup>53</sup> An instant message is a type of communication where one user types a message to another and it is received substantially in real-time, thereby enabling conversation to occur in real-time. See generally, *Instant Messaging*, wikipedia.org at http://en.wikipedia.org/wiki/Instant\_messenger (visited on July 30, 2006).

The reason that Cerf and Kahn are credited with the invention of the internet is for their development of the logical construct know as the Transmission Control Protocol/Internet Protocol ("TCP/IP").<sup>54</sup> When boiled down to its essence, one of the only "things" that one may point to when answering the question of "what is the internet" is that it is a form of communications that is enabled by a protocol, that is itself enabled by a data structure carried by signals. That protocol is TCP/IP and the data structure it teaches is the TCP/IP packet.

It is this packet that enables communications between disparate systems and results in what we know to be the internet. It is the TCP/IP packet that remains constant on the network while the types of nodes and connections are in constant flux. It is the TCP/IP packet data structure that brings cohesion to a network in constant change; a network that is impossible to pin down as having a given composition and/or arrangement at any given time. It is only that data structure and the signals that carry that structure that remain identifiable in a network that otherwise cannot be quantified as to what constitutes its constituent parts. It is that data structure that enables the internet.

Yet, under the Interim Guidelines, the TCP/IP packet would fail the test of patentable subject matter. The guidelines specifically carve out data structure<sup>55</sup> and signal<sup>56</sup> based claims as not being patentable subject matter. As the TCP/IP packet is a data structure, and as that packet is most commonly embodied as a signal, it is not physical, and it would be deemed unaptentable subject matter per se.

Further, the internet itself might be found to be too intangible or not concrete enough to fall under the guideline's notions of protectable subject matter. For example, one cannot touch the internet or point to any one part in specifying it as embodying the whole (i.e., as its useful purposes are so varied as to make any type of connection, use and/or embodiment otherwise too narrow to capture the entirety of the resulting internet invention). Also, the USPTO could easily point out that the internet was not concrete as its constant state of flux and flows of communication are not always repeatable (e.g., a communication as between nodes A and B may take many different paths unpredictably over intermediate nodes). As such, despite how useful the TCP/IP packed data structure is, and how useful the resulting internet might be to the public, under the Interim Guidelines, examiners would find the TCP/IP packet data structure to be unpatentable subject matter.

To this end the USPTO is again creating barriers to patentability that are not statutorily supported. The USPTO has limited the scope of protectable invention to be substantially less than any innovation under the sun that is made by man<sup>57</sup> that is useful.<sup>58</sup> These new limitations on patentable subject matter in the Interim Guidelines flout established law, frustrate prosecution, and stifle innovation.

<sup>&</sup>lt;sup>54</sup> Internet protocol suite, wikipedia.org at http://en.wikipedia.org/wiki/Tcp/ip (visited on July 30, 2006).

<sup>&</sup>lt;sup>55</sup> Interim Guidelines at 52.

<sup>&</sup>lt;sup>56</sup> *Id.* at 55.

<sup>&</sup>lt;sup>57</sup> *Diamond* at 309.

<sup>&</sup>lt;sup>58</sup> U.S. Const., Art. I, §8, cl. 8.; 35 U.S.C. § 101 (2000).

This frustration is evident in the Interim Guidelines, which at points, admits self-contradiction:

A signal, a form of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of § 101. *On the other hand, from a technological standpoint, a signal encoded with functional descriptive material is similar to a computer-readable memory encoded with functional descriptive material, in that they both create a functional interrelationship with a computer.* In other words, a computer is able to execute the encoded functions, regardless of whether the format is a disk or a signal. <sup>59</sup>

There is a certain amount of irony in the USPTO admitting there is a functional relationship from a "technological standpoint" (when very recently the agency was pushing a "technological arts" standard for patentable subject matter), yet, despite admitting that signals have such technical effect, the USPTO still proceeds to bar these useful classes of invention.

There is inherent confusion introduced by the USPTO in dealing with signals. It is unclear how a signal is not an item of manufacture? A signal is made by man. It may be more fleeting than other items of manufacture, yet that should be no bar. Should an inventor that can manufacture a compound that decays in a nano-second, yet in that nano-second is able to cure cancer, be denied access to the patent process just because the manufactured result is very transitory? It is not the duration of an item of manufacture that is key to patentability, but rather its usefulness that should be at issue with regard to it being patentable subject matter. One wonders, if man does not manufacture the signal, then how else would it come into being? Would TCP/IP packets find themselves created in some remote forest where a tree fell or as some resonance from a distant star? What, other than mans' manufacturing of such signals, would bring about their existence? It is not clear how or why else such signals would come into existence but for the manufacture of such signals by man. A signal is man-made having a certain form and set of characteristics that begets a result; if that result is useful, then that signal form should be within the scope of patentable subject matter.

### Question 2

With regard to question (2) and whether a "claimed invention must necessarily, either expressly or inherently produce a useful, concrete, and tangible result (rather than just be "capable of" producing such a result?" our position is that the USPTO is adopting the wrong standard. As already discussed above with regard to question (1), and for similar reasons, it is our position that if an invention is capable of producing a "useful, concrete <u>or</u> tangible".<sup>61</sup> result that it falls within the realm of patentable subject matter.

<sup>&</sup>lt;sup>59</sup> Interim Guidelines at 57

<sup>&</sup>lt;sup>60</sup> "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor; subject to the conditions and requirements of this title." 35 U.S.C. § 101 (2000).

<sup>&</sup>lt;sup>61</sup> State Street Bank, 149 F. 3d at 1373.

# Question 3

With regard to question (3) and whether a the explanations provided in the Interim Guidelines are sufficient for the terms "useful," "concrete," and "tangible," our position is that the explanations are insufficient.

## Question 4

With regard to question (4) and the role of preemption, it is our position that \$112 should be applied in discerning whether or not a claim is definite or not. Should the claim become so broad as to encompass all aspects of a natural phenomenon, law of nature, and/or the like, it would also be indefinite under \$112. As such analysis, is in essence, indefiniteness analysis, it may well make sense to address preemption under \$112.

## Question 5

With regard to question (5) and whether a the USPTO to consider claim signals, data structures and (non)functional descriptive materials to be per se to be non-statutory subject matter, our position is that this is incorrect. As already discussed above with regard to question (1), and for similar reasons, it is our position that data structures and signal based claims are patentable subject matter.

With regard to what would be the potential impact on internet service providers, satellites, WiFi and other carriers of signals if a per se rule of statutory subject matter were provided with regard to signal claims, it is our position that it would be a positive one. First, only those signal claims that pass §§ 102 and 103 requirements would be at issue. Second, would such carriers develop new inventions relying on signals, they would be the first to benefit from their own creativity. Lastly, were others to use the carriers to transmit infringing signals without the carriers knowledge, contributory infringer would apply into implicate or exonerate the carriers as has always been the case.

### Conclusion

As such, we put forth that the USPTO should adopt a subject matter test that includes any innovations that are man-made and useful. For example, a "useful, tangible, or concrete" result test that supports claims for data structures and signals as being patentable subject matter would better comport with current legal precedent and statutory requirements. Further, we suggest that the USPTO not adopt arbitrary changes in semantics, wherein long established meanings and uses are rendered meaningless.