

**CRACKING THE CLAIM CONSTRUCTION OF “CODE” IN  
*INTERDIGITAL V. INTERNATIONAL TRADE COMMISSION***

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*Many patent cases turn on the meaning of terms in the patent claims. Although the standards for interpreting claims are somewhat fluid, there is a need for some degree of rigidity so inventors can protect their inventions. This Recent Development examines how the court in InterDigital Communications, LLC v. International Trade Commission applied various doctrines of patent law to interpret the meaning of “code” in two of InterDigital’s patents. Particularly, this Recent Development focuses on InterDigital’s heavy reliance on the doctrine of claim differentiation in expanding the meaning of “code” beyond its proper scope. A court-sanctioned expansion of a patent term beyond its proper scope could create confusion about what inventions a patent protects. InterDigital also invites the possibility of patent owners or applicants strategically using the doctrine of claim differentiation contrary to the purposes and principles behind the U.S. patent system.*

**I. INTRODUCTION**

After years of meticulous experimentation and hard work, the American dream has finally come true for a foreign inventor, the increasingly present player in the U.S. patent system.<sup>1</sup> The inventor’s gadget has hit the shelves in the technology loving land of America and revenue is flowing in. The inventor has not yet submitted a U.S. patent application, but he is by no means unprepared to navigate the U.S. patent system. He paid the best data-mining

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<sup>1</sup> BUREAU OF INT’L INFO. U.S. DEP’T OF STATE, PROGRAMS, OUTLINE OF THE U.S. ECONOMY 125 (2012 ed. 2012) (“Half of all U.S. patents are issued to foreign inventors.”).

research team to perform patentability searches on his invention, and the top patent attorneys assured him his invention would not infringe any patents. Furthermore, the attorneys informed him of the twelve-month grace period, which allows an invention to be sold in the United States for a year before a patent application has to be filed.<sup>2</sup> Although the U.S. patent system is complex, at least its rules seem reliable.

The recent case of *InterDigital Communications, LLC v. International Trade Commission*<sup>3</sup> threatens to throw the standards of the patent system into chaos. The patent attorneys call the inventor and notify him that he could be sued in U.S. court for exporting his inventions to the United States.<sup>4</sup> The basis for the suit? Documents which do not contain even a notion of the inventor's product.<sup>5</sup>

The decision in *InterDigital* expanded the meaning of a claim term beyond what was supported by the specification and a variety of expert testimony, including testimony from the inventor.<sup>6</sup> Such an expansion departs from what the inventor intended to disclose and creates the possibility of broadening other patents beyond their proper scope in the future, changing the landscape of patent law. Part II of this Recent Development provides an overview of the relevant aspects of the U.S. patent system. Part III examines how the Federal Circuit has recently applied the doctrine of claim differentiation. In Part IV, the reasoning and principles behind *InterDigital* are analyzed and evaluated. Part V then examines the significance of the *InterDigital* holding and how it will affect the future of patent law.

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<sup>2</sup> See 35 U.S.C. § 102(b) (2006).

<sup>3</sup> 690 F.3d 1318 (Fed. Cir. 2012).

<sup>4</sup> 19 U.S.C. § 1337(a)(1)(B)(i) (2006) (stating that it is unlawful to import for sale articles that infringe a valid and enforceable U.S. patent).

<sup>5</sup> See U.S. Patent No. 7,190,966 (filed June 29, 2005); U.S. Patent No. 7,286,847 (filed June 29, 2005).

<sup>6</sup> See *InterDigital*, 690 F.3d at 1331–33; '966 Patent; '847 Patent.

## II. THE U.S. PATENT SYSTEM

Navigating the U.S. patent system can be a daunting task. The rules of the system are outlined in Title 35 of the United States Code,<sup>7</sup> but there are many nuances about the rules and their relations. In addition, many aspects of the patent system are debated to this day. A basic introduction to patents and their interpretation is given below.

### A. *Introduction to Patents*

To obtain a patent, an inventor submits an application to the U.S. Patent and Trademark Office (“USPTO”), launching the process known as patent prosecution.<sup>8</sup> A patent examiner then determines whether the application meets the standards of patentability: The claimed invention must be novel, nonobvious, and useful.<sup>9</sup> Furthermore, to become an enforceable patent, the patent application must contain an enabling disclosure<sup>10</sup> and claims which clearly define the invention.<sup>11</sup>

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<sup>7</sup> See 35 U.S.C. §§ 1–376 (2006).

<sup>8</sup> 1 DONALD S. CHISUM, CHISUM ON PATENTS G1-15 to G1-16 (Matthew Bender 2012). The examiner conducts a search of “prior art” to determine if any previous patents or publications disallow the issuance of the patent. *Id.* at G1-8. Once the examiner has determined whether the application meets the “substantive, formal, and procedural requirements” to be issued into a patent, the examiner notifies the applicant as to whether each claim of the patent has been rejected or allowed. *Id.* A series of subsequent communications, called “actions,” between the examiner and applicant ensue, during which the applicant can amend the application or present evidence to gain a reexamination. *Id.* After the final action, the USPTO may issue a patent on any allowed claims, and the applicant can appeal any claims the examiner rejected to the Board of Appeals. *Id.* Otherwise, the applicant is said to have abandoned those rejected claims, which causes the applicant to lose the benefit of the application filing date for those claims. *Id.*

<sup>9</sup> *Id.* at G1-16 (“[T]hree basic requirements or conditions for . . . patentability [are]: utility, novelty[,], and nonobviousness. . . . An applicant must [also] be [the] original inventor . . . and must have [submitted a patent application within one year] of [any] potential statutory bars [to obtaining the patent].”).

<sup>10</sup> *Id.* at G1-7 (describing the standard of enabling disclosure, or “enablement,” as such disclosure that allows a person having “ordinary skill in the art to make

The specification is a crucial part of the patent application (or future patent) for both litigation and prosecution purposes.<sup>12</sup> The specification includes “a complete description of the invention,” the enabling disclosure, and “one or more claims.”<sup>13</sup> The description and enabling disclosure provide guidance for the meaning of the terms used in claims as well as the best mode of the invention.<sup>14</sup>

During prosecution, claims determine the patentability of an invention because they define the parameters of the invention.<sup>15</sup> A claim only “‘reads on’ or covers products or processes that contain all of the elements and limitations” present in that claim.<sup>16</sup> Thus, to be effective, a claim must not be too broad or too narrow.<sup>17</sup> In addition, claims may be written in either independent or dependent form.<sup>18</sup> Independent claims usually stand alone,<sup>19</sup> whereas dependent claims reference a broader independent or dependent claim.<sup>20</sup> Dependent claims impose a limitation on the referenced claim.<sup>21</sup>

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and use” the described invention “without an undue amount of experimentation”).

<sup>11</sup> *Id.* at G1-3.

<sup>12</sup> See MARTIN J. ADELMAN ET AL., CASES AND MATERIALS ON PATENT LAW 386–87 (3d ed. 2009) (“This important section requires both that the applicant disclose ‘how to make’ and ‘how to use’ the claimed invention.”).

<sup>13</sup> CHISUM, *supra* note 8, at G1-21.

<sup>14</sup> 35 U.S.C. § 112 (2006); CHISUM, *supra* note 8, at G1-21. The specification must disclose the “best mode” of the invention described in the patent. 35 U.S.C. § 112. This is the embodiment of the invention imagined by the inventor when the inventor created the invention. *See id.* Other means of carrying out the invention may also be disclosed in the specification. *See id.*

<sup>15</sup> CHISUM, *supra* note 8, at G1-3.

<sup>16</sup> *Id.* at G1-19 to G1-20.

<sup>17</sup> *See id.* at G1-3 (maintaining that claims which are too broad may cover prior art or describe matter not represented in the specification; in contrast, claims which are too narrow may not cover all possible embodiments of the invention).

<sup>18</sup> 35 U.S.C. § 112(c).

<sup>19</sup> See JANICE M. MUELLER, PATENT LAW 84 (3d ed. 2009). Independent claims stand alone in that they do not need to reference another claim to define the invention. *Id.*

<sup>20</sup> 35 U.S.C. § 112(d).

<sup>21</sup> *See id.*

A patent owner maintains a right of exclusivity for a claimed invention for a twenty-year period.<sup>22</sup> Others are prohibited from “making, using, or selling” the protected invention during that time.<sup>23</sup> If anyone makes, uses, or sells the patented invention during the twenty-year term, without the patent owner’s permission, the patent owner may file a civil suit for infringement against the alleged infringer.<sup>24</sup> Infringement is determined on a claim-by-claim basis by examining the claims of a patent and determining if the alleged infringer is doing something that falls within the scope of one or more of the claims.<sup>25</sup> Typical remedies for infringement include preliminary and permanent injunctions as well as damages.<sup>26</sup>

#### B. *Interpreting Patents*

Claims are the most useful and persuasive means in determining what subject matter a patent protects.<sup>27</sup> The process of determining the legally operative meaning of claims is claim construction.<sup>28</sup> Claims can be interpreted using intrinsic evidence such as the specification (including the claims themselves) and the

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<sup>22</sup> 35 U.S.C. § 154(a)(2) (2006). The period of protection begins on the date the patent application is filed with the USPTO and ends twenty years subsequent to that date. *Id.*

<sup>23</sup> CHISUM, *supra* note 8, at G1-8.

<sup>24</sup> *Id.* at G1-10.

<sup>25</sup> *See id.* at G1-3.

<sup>26</sup> 7 CHISUM, *supra* note 8, § 20.01.

<sup>27</sup> *See* Merrill v. Yeomans, 94 U.S. 568, 570 (1876) (establishing the modern doctrine of “peripheral claiming,” which maintains that claims are of primary importance in determining what a patent covers); *see also* Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” (quoting Inova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004))).

<sup>28</sup> U.S. Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement.”).

prosecution history.<sup>29</sup> Extrinsic evidence, or evidence found outside the text of the patent,<sup>30</sup> can also be used to interpret claim terms.<sup>31</sup>

The most basic form of intrinsic evidence as to claim meaning is the claim itself.<sup>32</sup> Sometimes the context of a claim term within a single claim can provide guidance when interpreting the claim.<sup>33</sup> This principle is illustrated in *Phillips v. AWH Corp.*<sup>34</sup> In *Phillips*, a claim referred to “steel baffles.”<sup>35</sup> The court noted that because the term “baffles” is modified by the word “steel,” the claimed baffles are not inherently made of steel.<sup>36</sup> Thus, if the term

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<sup>29</sup> See *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) (detailing a three step method for interpreting claims using intrinsic evidence: (1) look at the words of the claims themselves, (2) review the specification to determine if the meaning of the words contained in the claims differ from the ordinary meaning of the words, and (3) consider the prosecution history of the patent if it is admitted as evidence); *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1216 (Fed. Cir. 1995) (“In construing the claims we look to the language of the claims, the specification, and the prosecution history.”).

<sup>30</sup> See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (“Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises. This evidence may be helpful to explain scientific principles, the meaning of technical terms, and terms of art that appear in the patent and prosecution history.”).

<sup>31</sup> *Pall*, 66 F.3d at 1216 (maintaining that extrinsic evidence may be considered if needed to determine the scope or meaning of technical claim terms). *But see Vitronics*, 90 F.3d at 1583 (holding that if analysis of intrinsic evidence resolves a dispute about the meaning of a claim term, it is not proper to use extrinsic evidence to construe a claim term).

<sup>32</sup> *Vitronics*, 90 F.3d at 1582.

<sup>33</sup> See, e.g., *Mars, Inc. v. H.J. Heinz Co.*, 377 F.3d 1369, 1374 (Fed. Cir. 2004). The court construed the term “ingredients” with respect to how the term “mixture” was used in the same claim. *Id.* The claim at issue referred to “a mixture . . . of ingredients.” *Id.* The court found that the term “ingredients” refers to components already added to the mixture. *Id.*

<sup>34</sup> 415 F.3d 1303, 1314 (Fed. Cir. 2005).

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

“baffles” was used elsewhere in the patent, the composition of the mentioned baffles was not necessarily steel.<sup>37</sup>

Claim terms must also be interpreted in the context of other claims.<sup>38</sup> The doctrine of claim differentiation, which will be discussed in depth later, states that a dependent claim containing a certain limitation encourages the presumption that the same limitation is not in the independent claim.<sup>39</sup> For example, in *In re Scroggie*,<sup>40</sup> an independent claim referred to “a personal computer over a computer network.”<sup>41</sup> A later dependent claim referred to the “said computer network compris[ing] one of an intranet and the Internet.”<sup>42</sup> Despite the applicant’s insistence that the phrase “personal computer over a computer network” meant a personal computer used in connection with the Internet or having an Internet connection, the court applied the doctrine of claim differentiation to reject this interpretation.<sup>43</sup> The court reasoned that because a later dependent claim limited the computer network to the Internet,

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<sup>37</sup> *Id.*

<sup>38</sup> EDWARD D. MANZO, CLAIM CONSTRUCTION IN THE FEDERAL CIRCUIT § 2:19 (2012 ed. 2012).

<sup>39</sup> See *TurboCare Div. of Demag Delaval Turbomachinery Corp. v. Gen. Electric Co.*, 264 F.3d 1111, 1123 (Fed. Cir. 2001) (determining that limitations should not be read into a claim term in which another claim restricts the meaning of the invention in the same way as the limitation that is sought to be read in); *Dow Chem. Co. v. United States*, 226 F.3d 1334, 1341–42 (Fed. Cir. 2000) (determining that independent claims should be given broader meaning than dependent claims if failing to do so would make a dependent claim redundant). *But see Tandon Corp. v. U.S. Int’l Trade Comm’n.*, 831 F.2d 1017, 1023 (Fed. Cir. 1987) (affirming that two claims which read differently can cover the same subject matter); *Bourns, Inc. v. United States*, 537 F.2d 486, 492 (Ct. Cl. 1976) (holding that claims may be multiplied “because it is desired to define the metes and bounds of the invention in a variety of different ways”).

<sup>40</sup> 442 F. App’x 547 (Fed. Cir. 2011).

<sup>41</sup> *Id.* at 548 (citing U.S. Patent Application No. 09/401,939 (filed Sept. 23, 1999)).

<sup>42</sup> *Id.* at 550.

<sup>43</sup> MANZO, *supra* note 38, § 2:21.

the computer network in the independent claim was not limited to the Internet.<sup>44</sup>

Reading claims in light of the specification can provide guidance on the meaning of claim terms.<sup>45</sup> However, an interpretation of a claim term based on the specification should never trump an interpretation of a claim term based on the clear meaning of the claim term.<sup>46</sup> Furthermore, the specification must clearly support an interpretation of a claim term to be used to interpret the meaning of an unclear claim term.<sup>47</sup> The specification is not only usually dispositive in determining what is included in a claim but also is “the single best guide to the meaning of a disputed term” in a claim.<sup>48</sup> When reviewing a patent application, the USPTO interprets unclear claim terms with respect to the specification as the specification would be understood by a person having ordinary skill in the art (“PHOSITA”).<sup>49</sup> The fictitious PHOSITA is a legal creation who is presumed to have all the normal skills of a person in a technical field<sup>50</sup> as well as global knowledge of all prior art in that technical field.<sup>51</sup>

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<sup>44</sup> *Id.* at § 2:19; see also *Microthin.com, Inc. v. SiliconeZone USA, LLC*, 377 Fed. App’x 8, 12–13 (Fed. Cir. 2010). The court rejected the patent owner’s assertion that as used in an independent claim, “non-slip” entailed “without being sticky to the touch” on the basis that a later dependent claim added the limitation that the non-slip surface is “not sticky to the touch.” *Microthin.com*, 377 Fed. App’x at 12–13. Including the limitation in the later dependent claim gave rise to the presumption of claim differentiation: The limitation present in the dependent claim did not exist in the independent claim. *Id.*

<sup>45</sup> *United States v. Adams*, 383 U.S. 39, 48–49 (1966).

<sup>46</sup> *E. I. Du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988).

<sup>47</sup> 37 C.F.R. § 1.75(d)(1) (2012).

<sup>48</sup> *Vitronics Corp. v. Conceptiontronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

<sup>49</sup> *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316–17 (Fed. Cir. 2005) (citing *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004)). This approach has also been adopted by the Federal Circuit in interpreting unclear claim terms. *Id.*

<sup>50</sup> *PDL Biopharma, Inc. v. Sun Pharm. Indus. Ltd.*, No. 07-CV-1788, 2008 U.S. Dist. LEXIS 105464, at \*128 (D.N.J. Dec. 11, 2008).

<sup>51</sup> William A. Drennan, *A Method of Analysis for the Unlikely Asked To Perform the Amazing: Determining “Patentability” Without a Patent*

A point of conflict in many patent cases involves using the specification to limit the meaning of a claim as opposed to using the specification to interpret the meaning of a claim.<sup>52</sup> *Tronzo v. Biomet, Inc.*<sup>53</sup> illustrates that a proper example of using the specification to limit the meaning of the claim occurs when the specification discloses disavowals of claim scope.<sup>54</sup> The independent claim in the patent at issue described a cup prosthesis, but only disclosed generic shapes for the prosthesis.<sup>55</sup> However, the specification distinguished the prior art (cup prostheses of different shapes) as inferior and emphasized the advantages of a conical shaped cup prosthesis.<sup>56</sup> The court therefore determined that the independent claim of the patent disclosed only conical shaped cup prostheses.<sup>57</sup>

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*Application Under Section 1235*, 22 VA. TAX REV. 443, 534 (2002–2003); see also *Int'l Cellucotton Prods. Co. v. Sterilek Co.*, 94 F.2d 10, 13 (2d Cir. 1938) (“[W]e must suppose the [PHOSITA] to be endowed, as in fact no inventor is endowed; we are to impute to him knowledge of all that is not only in his immediate field, but in all fields nearly akin to that field.”); Rebecca S. Eisenberg, *Obvious to Whom? Evaluating Inventions from the Perspective of PHOSITA*, 19 BERKELEY TECH. L.J. 885, 894 (2004) (describing the PHOSITA as a person who lacks the capacity to innovate or invent).

<sup>52</sup> CHISUM, *supra* note 8, § 3.02(1)(g)(ii)(B).

<sup>53</sup> *Tronzo v. Biomet, Inc.*, 156 F.3d 1154 (Fed. Cir. 1998).

<sup>54</sup> *Id.* at 1159.

<sup>55</sup> *Id.* at 1156, 1158. The relevant claim reads:

An acetabular cup prosthesis [sic] comprising a body extending generally longitudinally and terminating into front and rear surfaces, said front surface extending substantially transversely to said body; and at least one fin for securing said cup to a prepared acetabulum cavity, said fin having a length extending generally longitudinally from said front surface toward said rear surface continuously along said body throughout the entire length of said fin, and said fin being configured so as to extend radially outwardly beyond the perimeter of said front surface and said body so as to engage with the cavity thereby securing said cup.

*Id.*

<sup>56</sup> *Id.* at 1159.

<sup>57</sup> *Id.* The court reached the conclusion that the specification limited the meaning of the independent claim. *Id.* However, a dependent claim based on the independent claim contained a limitation that the implant be conical shaped.

Limitations on the patented invention made during patent prosecution should also be enforced when interpreting the meaning of claims. In *Biovail Corp. International v. Andrx Pharmaceuticals, Inc.*,<sup>58</sup> a patent claimed a composition comprising a salt and a wetting agent “in admixture” with the salt.<sup>59</sup> The “in admixture” limitation was added during the prosecution to distinguish the invention from prior art.<sup>60</sup> Thus, the patent owner was prohibited from claiming that products that do not contain the “in admixture” limitation infringe that patent.<sup>61</sup>

Although the specification and prosecution history can be used to import limitations on the interpretation of claim terms, extraneous limitations should not be imposed on the meaning of the claim terms.<sup>62</sup> In *Haney v. Timesavers, Inc.*,<sup>63</sup> the patentee argued that the claim term “another movement” should mean “another movement but not one with a reciprocating motion.”<sup>64</sup> Nothing in the claims, specification, or prosecution history indicated that the broad term “another movement” should exclude a reciprocating motion.<sup>65</sup> Furthermore, “another movement” is not a technical term with a disputed meaning.<sup>66</sup> The court declined to import the extraneous limitation that “another movement” excludes a reciprocating motion and instead understood “another movement” to have its ordinary, broad meaning which would include a reciprocating motion.<sup>67</sup>

In order to use the specification to interpret the meaning of a claim, a court should focus on how a PHOSITA would interpret

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*Id.* This could have given rise to a claim differentiation argument that because this limitation was included in the dependent claim, the limitation was not present in the independent claim. *Id.*

<sup>58</sup> 239 F.3d 1297 (Fed. Cir. 2001).

<sup>59</sup> *Id.* at 1300.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.* at 1304.

<sup>62</sup> See CHISUM, *supra* note 8, § 3.02(1)(g)(ii)(B).

<sup>63</sup> 900 F. Supp. 1375 (D. Or. 1995).

<sup>64</sup> *Id.* at 1377.

<sup>65</sup> See *id.* at 1377–78.

<sup>66</sup> See *id.* at 1378.

<sup>67</sup> *Id.*

the meaning of a claim.<sup>68</sup> “One of the best ways to teach a person of ordinary skill in the art how to make and use the invention is to provide an example of how to practice the invention in a particular case.”<sup>69</sup> For instance, it could be apparent to a PHOSITA that claims describe different subject matter than what is specifically enumerated in the specification.<sup>70</sup> But it is important to remember that the claims of the patent are not construed as limited to embodiments set forth in the specification.<sup>71</sup> Even if the patent only contains one embodiment, the claims of the patent are not necessarily limited to only covering that particular embodiment.<sup>72</sup> Upon reading the specification through the eyes of a PHOSITA, “it will become clear whether the patentee is setting out specific examples of the invention to accomplish those goals, or whether the patentee instead intends for the claims and the embodiments in the specification to be strictly coextensive.”<sup>73</sup> This distinction can be made by examining how the patent drafter uses terms within the claims and the specification.<sup>74</sup>

If intrinsic evidence does not resolve disputes over claim terms, extrinsic evidence may be considered.<sup>75</sup> Examples of extrinsic evidence include definitions of technical terms, scientific

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<sup>68</sup> *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005).

<sup>69</sup> *Id.*

<sup>70</sup> *See Nazomi Commc’ns, Inc. v. ARM Holdings, PLC*, 403 F.3d 1364, 1369 (Fed. Cir. 2005).

<sup>71</sup> *See Phillips*, 415 F.3d at 1323 (“[P]ersons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments.”).

<sup>72</sup> *Gemstar-TV Guide Int’l, Inc. v. Int’l Trade Comm’n*, 383 F.3d 1352, 1366 (Fed. Cir. 2004) (“Even when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope.” (citations omitted)).

<sup>73</sup> *Phillips*, 415 F.3d at 1323 (citing *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001)).

<sup>74</sup> *See Snow v. Lake Shore & Mich. S. Ry. Co.*, 121 U.S. 617, 630 (1887) (determining that nothing in the specification indicated that the patent drafter considered an alternative to the embodiment disclosed).

<sup>75</sup> *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584 (Fed. Cir. 1996).

principles, and the current state of the field in question.<sup>76</sup> Although extrinsic evidence can provide a context for interpreting claims, it is not weighed as heavily as intrinsic evidence in determining the “legally operative meaning of claim language.”<sup>77</sup> In particular, some cases suggest that claim terms should be construed based upon extrinsic evidence only if an analysis of intrinsic evidence fails to resolve disputes over the meaning of claim terms.<sup>78</sup> Extrinsic evidence is not created with the patent in mind, may not be written by or for people skilled in the art in question, and may suffer from litigation-generated bias.<sup>79</sup> A large amount of extrinsic evidence of varying relevancy may be produced, and determining the relevance and the weight to give to certain evidence may be difficult.<sup>80</sup> Relying too heavily on extrinsic evidence presents the possibility of changing the meaning of the patent or the terms within the patent, contrary to the patent itself.<sup>81</sup>

When interpreting claims using intrinsic and extrinsic evidence, disputes arise over whether a limitation present in a dependent claim should be read into the independent claim.<sup>82</sup> Claim differentiation applies when the limitation of a dependent claim is the only significant difference between the dependent claim and the independent claim.<sup>83</sup> The doctrine of claim differentiation is

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<sup>76</sup> See *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004).

<sup>77</sup> *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004).

<sup>78</sup> See, e.g., *Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1367 (Fed. Cir. 2003) (“When an analysis of *intrinsic* evidence resolves any ambiguity in a disputed claim term, it is improper to rely on extrinsic evidence to contradict the meaning so ascertained.”).

<sup>79</sup> *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005).

<sup>80</sup> *Id.*

<sup>81</sup> *Id.* at 1319. The court concludes that by allowing extrinsic evidence to change the meaning of claim terms (and consequently change the meaning of claims) against the inventor’s original meaning, the public notice function of patents would be hindered. *Id.* However, the court does note that consideration of extrinsic evidence in some circumstances is necessary to inform the court about key background information. *Id.*

<sup>82</sup> See *Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001).

<sup>83</sup> *Id.*

based on the presumption that every claim present in a patent has a different scope; otherwise, the inclusion of the dependent claim would be redundant.<sup>84</sup> Although interpreting an independent claim to have the same scope as a dependent claim is “presumptively unreasonable,”<sup>85</sup> expanding an independent claim beyond the scope of the specification and representations to the USPTO is not allowed under the doctrine of claim differentiation.<sup>86</sup> In other words, similarity between claims does not allow expansion of one of the claims if the scope of the specification only allows one interpretation.<sup>87</sup>

### III. REVIEW OF RECENT CASES INVOLVING CLAIM DIFFERENTIATION

In the last five years, the Federal Circuit has adopted claim differentiation in some cases,<sup>88</sup> but has also found the presumption

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<sup>84</sup> *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998); *see also Tandon Corp. v. U.S. Int’l Trade Comm’n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987) (“To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant.”).

<sup>85</sup> *Beachcombers, Int’l, Inc. v. WildeWood Creative Prods., Inc.*, 31 F.3d 1154, 1162 (Fed. Cir. 1994).

<sup>86</sup> *See O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1582 (Fed. Cir. 1997) (finding that the presumption of claim differentiation was trumped by the clear meaning provided for the claim in the description); *see also Hormone Research Found., Inc. v. Genentech, Inc.*, 904 F.2d 1558, 1567 n.15 (Fed. Cir. 1990) (holding that claim differentiation cannot trump the express and contrary intentions of the patent drafter, but that “separate claims may define the invention using different terminology, especially where (as here) independent claims are involved”).

<sup>87</sup> *See Laitram Corp. v. Morehouse Indus., Inc.*, 143 F.3d 1456, 1464 (Fed. Cir. 1998) (finding that the limiting claim term “sprocket recess” bore only one interpretation and that, consequently, contrary to the doctrine of claim differentiation, similarity between the independent claim and dependent claim was allowed).

<sup>88</sup> *See S. Mills, Inc. v. Polartec, LLC*, 377 F. App’x 2, 8 (Fed. Cir. 2010) (finding the term “tie yarns” was not limited to “a face surface formed of face yarns,” even though a dependent claim required that limitation); *see also Boss Indus., Inc. v. Yamaha Motor Corp., U.S.A.*, 333 F. App’x 531, 532 (Fed. Cir. 2009) (affirming an application of claim differentiation on the basis that certain

of claim differentiation to be successfully rebutted when evidence indicates that the independent claim should be limited.<sup>89</sup> In both scenarios, the Federal Circuit’s application of claim differentiation has depended heavily on the facts and circumstances surrounding each case.

In finding a rebuttal of the presumption of claim differentiation, the court has relied on intrinsic evidence, such as the patent specification, and extrinsic evidence, such as testimony from PHOSITAs.<sup>90</sup> When the specification stresses the meaning of a term to be limited, the presumption of claim differentiation does not require a broadening of the meaning of the term outside of the specification.<sup>91</sup> In *Retractable Technologies, Inc. v. Becton, Dickinson*

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language would be meaningless unless claim differentiation were applicable; the intrinsic evidence also did not support the limited interpretation of the claim language); *Friskit, Inc. v. Real Networks, Inc.*, 306 F. App’x 610, 614 (Fed. Cir. 2009) (construing an independent claim containing “control” to include direct and indirect control, because a dependent claim contained the term “directly controllable”).

<sup>89</sup> *See, e.g.*, *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1299 (Fed. Cir. 2011). Relying primarily on the use of the disputed claim term in the specification, the Federal Circuit found that the presumption of claim differentiation was rebutted. *Id.*

<sup>90</sup> *Id.*; *see also* *Rambus, Inc. v. Infineon Techs. AG*, No. 00CV524, 2001 U.S. Dist. LEXIS 10990, at \*53–54 (E.D. Va. Mar. 15, 2001) (allowing expert testimony from a PHOSITA to understand claim terms).

<sup>91</sup> *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1330 (Fed. Cir. 2009); *see also* *MarcTec, LLC v. Johnson & Johnson*, 394 F. App’x 685, 686–88 (Fed. Cir. 2010) (relying on the specification to determine that the term “bonded” in an independent claim should be limited to instances in which things were bonded using heat, regardless of the presence of a dependent claim which imposed that limitation); *ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1376 (Fed. Cir. 2009) (determining that a dependent claim requiring that the end of a spike be “pointed” did not broaden the meaning of “spike” in the corresponding independent claim to be something that was not pointed). The *Alaris* court noted that the specification repeatedly referred to the spike as being a pointed instrument. *Alaris*, 558 F.3d at 1376. Therefore, broadening the meaning of “spike” beyond a pointed instrument would go against the statutory requirement of the specification describing the claimed invention in “full, clear, concise, and exact terms.” *Id.* (quoting 35 U.S.C. § 112 (2006)).

*and Co.*,<sup>92</sup> the Federal Circuit found that the presumption of claim differentiation was overcome by how the claim term “body” was used in the specification.<sup>93</sup> The patent at issue contained an independent claim referring to a syringe “body” and a later dependent claim limited the “body” to a “one-piece body.”<sup>94</sup> Although the district court previously held that the “body” of a syringe was not limited to a single piece,<sup>95</sup> the Federal Circuit found that, as it was used in the specification, the term “body” referred to a one-piece body of a syringe.<sup>96</sup> Regardless of the presence of a dependent claim restricting the “body” to one piece, the presumption of claim differentiation was overcome by how the scope of the invention was defined in the specification.<sup>97</sup> Similarly, in *Edwards Lifesciences LLC v. Cook Inc.*,<sup>98</sup> the Federal Circuit emphasized that the presumption of claim differentiation should not overrule the significance of what is described in the specification.<sup>99</sup>

Although the specification alone may provide enough evidence to overcome the presumption of claim differentiation, extrinsic evidence such as how a PHOSITA would construe a claim term in the context of the claim and specification can also aid in rebutting the presumption of claim differentiation.<sup>100</sup> In *Rambus, Inc. v. Infineon Technologies AG*,<sup>101</sup> the disputed claim term was “bus.”<sup>102</sup> The plaintiff, partially relying on the doctrine of claim differentiation, argued that “bus” should mean any “set of signal lines . . . to which a number of devices are connected, and over which information is transferred between devices.”<sup>103</sup> However,

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<sup>92</sup> 653 F.3d 1296 (Fed. Cir. 2011).

<sup>93</sup> *Id.* at 1305.

<sup>94</sup> *Id.* at 1299.

<sup>95</sup> *Retractable Techs. Inc. v. Becton, Dickinson & Co.*, No. 2:07-CV-250, 2009 U.S. Dist. LEXIS 131234 (E.D. Tex. Sept. 21, 2009).

<sup>96</sup> *Retractable Techs.*, 653 F.3d at 1305.

<sup>97</sup> *Id.*

<sup>98</sup> 582 F.3d 1322 (Fed. Cir. 2009).

<sup>99</sup> *Id.* at 1330; MANZO, *supra* note 38, § 2:22.

<sup>100</sup> *See Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1397 (Fed. Cir. 2008).

<sup>101</sup> No. 3:00CV524, 2001 U.S. Dist. LEXIS 10990 (E.D. Va. Mar. 15, 2001).

<sup>102</sup> *Id.* at \*51–54.

<sup>103</sup> *Id.* at \*21.

the defendants contended that, in light of the specification, “bus” meant “multiplexed bus.”<sup>104</sup> The court heard extrinsic evidence in the form of PHOSITA testimony.<sup>105</sup> A PHOSITA who interpreted the claim term “bus” in light of the specification concluded that the claim term “bus” was limited to the defendant’s definition of bus, a “multiplexed set of signal lines used to transmit address, data and control information.”<sup>106</sup> The PHOSITA’s interpretation was deemed to be convincing, as it was “fully consonant with the specification and the claim language as explicated by the specification.”<sup>107</sup> The court discounted a different PHOSITA’s testimony because it was not in accordance with the intrinsic evidence.<sup>108</sup>

#### IV. INTERDIGITAL V. INTERNATIONAL TRADE COMMISSION

At the heart of *InterDigital* are U.S. patents 7,190,966 and 7,286,847,<sup>109</sup> which pertain to cell phone technology.<sup>110</sup> The ’966 patent contains an independent claim and a later dependent claim which adds a limitation to the independent claim.<sup>111</sup> The dispute in the case centered on whether the limitation in the dependent claim truly creates a narrower dependent claim than the independent claim, or whether, in light of the totality of the evidence, the independent claim implicitly contains the limitation made explicit in the dependent claim.<sup>112</sup> The doctrine of claim differentiation creates the presumption that limitations present in dependent claims should not be imposed on independent claims.<sup>113</sup> However, strong contrary intrinsic or extrinsic evidence can overcome the presumption of claim differentiation, allowing redundancy between claims in favor

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<sup>104</sup> *Id.* at \*23.

<sup>105</sup> *Id.* at \*53–54.

<sup>106</sup> *Id.*

<sup>107</sup> *Id.*

<sup>108</sup> *Id.* at \*54.

<sup>109</sup> U.S. Patent No. 7,190,966 (filed June 29, 2005); U.S. Patent No. 7,286,847 (filed June 29, 2005).

<sup>110</sup> *InterDigital Commc’ns, LLC v. Int’l Trade Comm’n*, 690 F.3d 1318, 1320 (Fed. Cir. 2012).

<sup>111</sup> *See* ’966 Patent col.10 ll.62–67, col.11 ll.1–19, col.11 ll.26–27.

<sup>112</sup> *See InterDigital*, 690 F.3d at 1324.

<sup>113</sup> *Id.* at 1324–25.

of understanding the patent in light of all relevant evidence to the patent's meaning.<sup>114</sup>

A. *Introduction to the Technology*

Cell phone technology has seen considerable advancements in the last decade.<sup>115</sup> Nonetheless, a persisting concern is efficiently using the small portion of the radiofrequency (RF) spectrum available for use by cell phone systems.<sup>116</sup> One system designed to address the limited space for RF signals is the code division multiple access ("CDMA") wireless communication system.<sup>117</sup> Factors that make the CDMA system preferable over previous systems include "the improved coding and modulation density, interference rejection and multipath tolerance of B-CDMA<sup>TM</sup> systems."<sup>118</sup> All cell phones, or subscriber units, in a CDMA system utilize the same section of the RF spectrum.<sup>119</sup>

Cell phones process information from "baseband signals," which are at a frequency far lower than the frequency of the RF signal.<sup>120</sup> In CDMA systems, baseband signals are transformed to RF signals using a "spreading code."<sup>121</sup> The baseband signal is multiplied by the spreading code, which yields the RF signal.<sup>122</sup> Each communication link between cell phones, or CDMA channel, is assigned a unique spreading code.<sup>123</sup>

CDMA systems are efficient because a plurality of cell phones use the same frequency spectrum.<sup>124</sup> A drawback of the CDMA

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<sup>114</sup> *Id.* at 1325.

<sup>115</sup> '966 Patent col.1 ll.36-46.

<sup>116</sup> *See id.* col.1 ll.47-52. All commercial, government, and military wireless uses are confined to the same small portion of the RF spectrum. *Id.*

<sup>117</sup> *Id.* col.1 ll.53-54.

<sup>118</sup> *Id.* col.1 ll.54-64. The improved coding makes it very difficult to intercept cell phone calls, increasing privacy for callers. *Id.* col.1 ll.64-66.

<sup>119</sup> *Id.* col.2 ll.1-2.

<sup>120</sup> *Broadcom Corp. v. Int'l Trade Comm'n*, 542 F.3d 894, 902 (Fed. Cir. 2008).

<sup>121</sup> *Id.*; '966 Patent col.2 ll.3-5.

<sup>122</sup> '966 Patent col.2 ll.3-5.

<sup>123</sup> *Id.* col.2 ll.10-12.

<sup>124</sup> *Id.* col.2 ll.17-18.

system is the possibility of interference between signals.<sup>125</sup> To avoid this problem, the transmission power of every single cell phone must be controlled.<sup>126</sup> U.S. patents 7,190,966 and 7,286,847 (held by InterDigital) describe a method of controlling the transmission power of cell phones, and thus limiting interference between cell phones, using a “short code.”<sup>127</sup> The short code is “a sequence for detection by the base station which has a much shorter period than a conventional spreading code.”<sup>128</sup> At the start of the power ramp-up, the power level of the short code is below the power level the base station requires for detection.<sup>129</sup> During the process of power ramp-up, the transmission power level of the short code is quickly increased.<sup>130</sup> Simultaneously, each short code (which has a successively greater power level) is transmitted to the base station.<sup>131</sup> Upon detection by the base station, the base station instructs the cell phone to stop increasing the transmission power.<sup>132</sup>

Nokia’s imported CDMA handsets transmit signals using a “scrambling code.”<sup>133</sup> “Scrambling . . . applies a code at the same rate as the information being scrambled.”<sup>134</sup> Scrambling is used to give space between signals “that might otherwise look the

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<sup>125</sup> *Id.* col.2 ll.19–28. Although the base station receiving cell phone signals is capable of detecting the desired CDMA channel with the unique spreading code as valid, other signals are viewed as noise. *Id.* If a single cell phone signal is too strong, the noise received at the base station could cause so much interference with other CDMA channels that these communications are terminated. *Id.* col.2 ll.21–28.

<sup>126</sup> *Id.* col.2 ll.28–31.

<sup>127</sup> *Id.*; U.S. Patent No. 7,286,847 col.1 ll.28–31 (filed June 29, 2005).

<sup>128</sup> ’966 Patent col.3 ll.23–25. The primary use of the short code is in establishing a CDMA connection between a cell phone and a base station. *Id.*

<sup>129</sup> *Id.* col.3 ll.25–28.

<sup>130</sup> *Id.* col.3 ll.28–30.

<sup>131</sup> *Id.*

<sup>132</sup> *Id.* col.3 ll.30–32.

<sup>133</sup> *InterDigital Commc’ns, LLC v. Int’l Trade Comm’n*, 690 F.3d 1318, 1323 (Fed. Cir. 2012).

<sup>134</sup> Non-Confidential Brief of Intervenors Nokia Inc. and Nokia Corp. at 54, *InterDigital*, 690 F.3d 1318 (2010-1093).

same.”<sup>135</sup> Instead of utilizing InterDigital’s method of increasing power during the transmission of each individual signal, Nokia’s technology employs intermittent power level increases.<sup>136</sup> Unlike InterDigital’s technology, Nokia’s technology does not increase the bandwidth of another signal.<sup>137</sup> Nokia’s technology also does not spread data or allow multiple parties to use the transmission medium.<sup>138</sup>

#### B. *Introduction to InterDigital*

InterDigital filed a complaint against Nokia in 2007, alleging that Nokia had violated 19 U.S.C. § 1337<sup>139</sup> and infringed InterDigital’s ’966 and ’847 patents through its importation of Wideband CDMA handsets.<sup>140</sup> InterDigital’s patents have identical specifications that describe apparatuses and methods for controlling transmission power when establishing a CDMA connection between a cell phone and a base station.<sup>141</sup> The first claim of the ’966 patent describes a “wireless code division multiple access (CDMA) subscriber unit” in which each successive transmission is “at an increased power level.”<sup>142</sup> The CDMA subscriber unit generates messages using “a same code.”<sup>143</sup> The fifth claim of the ’966 patent refers to “the subscriber unit of claim 1 wherein the same code is a spreading code.”<sup>144</sup> An evidentiary hearing was held by the administrative law judge to whom the case was assigned and he ruled in favor of Nokia.<sup>145</sup> InterDigital petitioned the International

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<sup>135</sup> *Id.*

<sup>136</sup> *InterDigital*, 690 F.3d at 1323.

<sup>137</sup> *Id.*

<sup>138</sup> *Id.*

<sup>139</sup> 19 U.S.C. § 1337(a)(1)(B)(i) (2006) (stating that it is unlawful to import for sale articles that infringe a U.S. patent which is both valid and enforceable).

<sup>140</sup> *InterDigital*, 690 F.3d at 1323.

<sup>141</sup> *Id.*

<sup>142</sup> U.S. Patent No. 7,190,966 col.10 ll.62–63 (filed June 29, 2005).

<sup>143</sup> *Id.*

<sup>144</sup> *Id.* at col.11 ll.26–27.

<sup>145</sup> *InterDigital*, 690 F.3d at 1323. The administrative law judge ruled that the term “code” is limited to a “spreading code or a portion of a spreading code.” *Id.* The judge found that Nokia’s products did not use spreading codes because

Trade Commission (“ITC”) for review, and the ITC affirmed the administrative law judge’s ruling that Nokia did not violate 19 U.S.C. § 1337.<sup>146</sup>

C. *How the Presumption of Claim Differentiation Fails in InterDigital*

The argument of claim differentiation is appealing in a case like *InterDigital*.<sup>147</sup> To reject the implication of claim differentiation would be to validate redundancy, a prospect which is “presumptively unreasonable.”<sup>148</sup> However, even more unreasonable would be to allow an expansion of the scope of InterDigital’s patents beyond what the inventor imagined, as evidenced by intrinsic and extrinsic evidence.<sup>149</sup> The *InterDigital* court fails to interpret the scope of the patents with respect to the evidence and, as a result, broadens the scope of InterDigital’s patents beyond the inventor’s ideas.<sup>150</sup>

1. *Claim Differentiation Applied to InterDigital*

The first claim of the ’966 patent mentions a “same code” and the fifth claim refers to the “subscriber unit of claim 1 wherein the same code is a spreading code.”<sup>151</sup> By narrowing the definition of code to a “spreading code” in the fifth claim, the court inferred that “code,” as it is used in the first claim, is not limited to a “spreading code.”<sup>152</sup> If the first claim was limited to a “spreading

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the codes used by Nokia are not “used or intended to be used to increase the bandwidth of another signal.” *Id.* Therefore, the administrative judge found that Nokia’s system did not infringe the claims of InterDigital’s patents. *Id.*

<sup>146</sup> *Id.* (“On petitions for review, the Commission took no position with respect to the administrative law judge’s determinations of patent validity and his resolution of certain claim construction issues unrelated to this appeal.”).

<sup>147</sup> *Id.*

<sup>148</sup> *Beachcombers, Int’l, Inc. v. WildeWood Creative Prods., Inc.*, 31 F.3d 1154, 1162 (Fed. Cir. 1994).

<sup>149</sup> *ADELMAN ET AL.*, *supra* note 12, at 27.

<sup>150</sup> *InterDigital*, 690 F.3d at 1331 (Newman, J., dissenting).

<sup>151</sup> U.S. Patent No. 7,190,966 col.11 l.17, col.11 ll.26–27 (filed June 29, 2005).

<sup>152</sup> *InterDigital*, 690 F.3d at 1324.

code,” it would be redundant for the patent drafter to include the fifth claim because it would cover the exact same subject matter.<sup>153</sup> The drafter could have simply specified the code in the first claim as a “spreading code” if the first claim was limited to a spreading code.<sup>154</sup>

The court also emphasized that the definition of “code” is not restricted to “spreading code” in the specification.<sup>155</sup> Nowhere does the patent drafter disavow a meaning of “code” broader than a “spreading code.”<sup>156</sup> Because there is no explicit limitation on the meaning of the term “code,” the court applied the rule that the plain meaning of the term “code” governs its interpretation.<sup>157</sup> The plain meaning of “code” to a PHOSITA of cell phone communications includes spreading codes as well as nonspreading codes, such as scrambling codes.<sup>158</sup>

By focusing on the absence of limitations and disavowals in the specification, the court’s interpretation of “code” fails to take into account the meaning of the term “code” as a PHOSITA of cell phone communications would interpret “code” in light of the specification.<sup>159</sup> Although the patent drafter did not explicitly limit “code” to a “spreading code” in the specification or disavow broader interpretations, this does not indicate that broader interpretations of “code” fall within the scope of the patent.<sup>160</sup> A technical term, such as “code,” should be understood with respect to the meaning that the patent drafter gave it.<sup>161</sup>

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<sup>153</sup> *Id.*

<sup>154</sup> *Id.* at 1325

<sup>155</sup> *Id.* at 1324.

<sup>156</sup> *Id.*

<sup>157</sup> *Id.*

<sup>158</sup> *Id.*

<sup>159</sup> *See id.* at 1330.

<sup>160</sup> *See Epistar Corp. v. Int’l Trade Comm’n*, 566 F.3d 1321, 1335 (Fed. Cir. 2009). The specification must contain clear representations of disavowing claim scope to disavow claim scope. *Id.*

<sup>161</sup> *InterDigital*, 660 F.3d at 1330–31 (“Technical terms in patents have the meaning that the patentee gave them. . . . The patent states that the code is a spreading code, and that a spreading code generator is used to produce the code. . . . No other form of code, although well known in this art, is mentioned

The court's interpretation of "code" resulted in a finding of infringement in favor of InterDigital.<sup>162</sup> If the court had properly constructed the meaning of "code" as it is understood to a PHOSITA in the art of cell phone communications, and with the meaning the patent drafter gave the term, Nokia would not have been found to be infringing InterDigital's patents.<sup>163</sup> The following two sections explore how the term "code" should be construed.

## 2. *Interpretation of "Code" in Light of the Specification*

The common specification of InterDigital's patents discusses a CDMA system.<sup>164</sup> In a CDMA system, all subscriber units utilize the same portion of the RF spectrum.<sup>165</sup> The baseband signal of each subscriber unit is multiplied by a "spreading code"<sup>166</sup> to ramp up the power of the baseband signal so that base stations can detect the subscriber unit signal.<sup>167</sup> Rather than limiting the discussion of CDMA systems to InterDigital's CDMA system, the patent drafter discusses CDMA systems generally.<sup>168</sup> Thus, by the definition used in the specification, a CDMA system utilizes a "spreading code."<sup>169</sup> A system labeled a "CDMA system" that uses a code other than a "spreading code" would not be a CDMA system by the drafter's definition.<sup>170</sup> Any system purporting to be a CDMA system, but that uses a scrambling code instead of a spreading code, would therefore not fall within the scope of the patent and could not infringe the patent.

In addition, all the codes mentioned in the specification are spreading codes.<sup>171</sup> Only four adjectives modify "code" in the

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or suggested for use in the ramp-up that is the subject of the patented invention.").

<sup>162</sup> *Id.* at 1330.

<sup>163</sup> *Id.* at 1330–31.

<sup>164</sup> U.S. Patent No. 7,190,966 col.3 ll.19–43 (filed June 29, 2005).

<sup>165</sup> *Id.* col.2 ll.1–2.

<sup>166</sup> *Id.* col.2 ll.3–5.

<sup>167</sup> *Id.* col.2 ll.46–52.

<sup>168</sup> *Id.* col.2 ll.3–5.

<sup>169</sup> *Id.*

<sup>170</sup> *See id.*

<sup>171</sup> *Id.* col.1–12.

entire specification: spreading, access, short, and pilot.<sup>172</sup> The specification defines the pilot code as “a spreading code which carries no data bits.”<sup>173</sup> The pilot code is therefore defined by the patent drafter as a spreading code. Similarly, the patent drafter defines the access code as “a known spreading code transmitted from a subscriber unit to the base station during initiation of communications and power ramp-up.”<sup>174</sup> Thus, access codes are spreading codes. The term “short code” is described as a “spreading code transmitted by the subscriber unit.”<sup>175</sup> By construing “short code” as a spreading code in the specification, the patent drafter limited “short codes” to a subset of spreading codes.

Furthermore, scrambling codes are well known in the field of cell phone technology.<sup>176</sup> If the patent drafter had intended to include scrambling codes in the patent, it would have been easy to draft a dependent claim or mention scrambling codes in the specification as an embodiment. Read in the light of the specification, the majority’s construction of “code” is not described or even enabled.<sup>177</sup> The dissent elaborates that “[a] technical term in a patent claim is construed in accordance with its description and enablement in the patent; it cannot be construed more broadly in a claim, than its description in the specification.”<sup>178</sup> The lack of “spreading” modifying “code” in the first claim does not broaden the scope of the patent to include scrambling codes.<sup>179</sup> The presumption of claim differentiation is overcome by how the patent drafter defined the scope of “code” in the specification.<sup>180</sup>

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<sup>172</sup> *Id.*

<sup>173</sup> *Id.* col.5 ll.9–10.

<sup>174</sup> *Id.* col.6 ll.20–23.

<sup>175</sup> *Id.* col.7 ll.44–46.

<sup>176</sup> *See InterDigital Commc’ns, LLC v. Int’l Trade Comm’n*, 690 F.3d 1318, 1331 (Fed. Cir. 2012) (Newman, J., dissenting).

<sup>177</sup> *Id.*

<sup>178</sup> *Id.*

<sup>179</sup> *Id.*

<sup>180</sup> *See Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011) (analyzing an application limiting a syringe body to a single structure based on the specification rather than the claims).

3. *Spreading v. Scrambling Codes from the Perspective of a PHOSITA*

Because the dispute over the meaning of “spreading code” or “scrambling code” cannot be resolved solely using intrinsic evidence, extrinsic evidence such as testimony from PHOSITAs in the field of cell phone communications may be used to help understand these terms.<sup>181</sup> Although the plain meaning of “code” to a PHOSITA is a sequence of chips or bits,<sup>182</sup> that definition is not consistent with “code” as it is described in the specification.<sup>183</sup> PHOSITA testimony that is inconsistent with the patent text is not persuasive in claim construction.<sup>184</sup>

Evidence indicates that the term “spreading code” is used somewhat loosely in the cell phone communications industry,<sup>185</sup> and the court did not formulate a precise definition of “spreading code.” However, there seems to be a consensus that a spreading code allows multiple users to concurrently use the same frequency band in telecommunications.<sup>186</sup> In contrast, a scrambling code does not allow multiple users to share the same telecommunications frequency band.<sup>187</sup> A scrambling code distinguishes signals that may appear identical by providing separation between those signals.<sup>188</sup> A scrambling code is also applied at the same rate as the data being scrambled, whereas a spreading code is applied to data at different rates.<sup>189</sup> Unlike a spreading code, a scrambling code is not used to increase the bandwidth of other signals.<sup>190</sup>

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<sup>181</sup> See *InterDigital*, 690 F.3d at 1327.

<sup>182</sup> *Id.* at 1324.

<sup>183</sup> See U.S. Patent No. 7,190,966 (filed June 29, 2005).

<sup>184</sup> See *Rambus, Inc. v. Infineon Techs. AG*, No. 3:00cv524, 2001 U.S. Dist. LEXIS 10990, at \*54 (E.D. Va. Mar. 15, 2001).

<sup>185</sup> See *InterDigital*, 690 F.3d at 1324.

<sup>186</sup> See Non-Confidential Brief of Intervenors Nokia Inc. and Nokia Corp., *supra* note 134, at 54.

<sup>187</sup> *Id.*

<sup>188</sup> *Id.*

<sup>189</sup> *Id.*

<sup>190</sup> *InterDigital*, 690 F.3d at 1323.

InterDigital argues that, as “code” is used in the patent, the term should be given its ordinary meaning to a PHOSITA in the field of telecommunications.<sup>191</sup> The term “code” would then cover both scrambling and spreading codes, and Nokia would be infringing the first claim of InterDigital’s patent, which refers to a “code” without any modifiers.<sup>192</sup> Furthermore, evidence shows that scrambling codes utilized in Nokia’s imported devices are frequently referred to as spreading codes by PHOSITAs in telecommunications.<sup>193</sup> Like a spreading code, Nokia’s scrambling code operates at a faster chip rate, but unlike a spreading code, Nokia’s scrambling code does not create a rate differential that a spreading code would create.<sup>194</sup>

An embodiment, such as the technology used by Nokia, is not mentioned or implied in the specification.<sup>195</sup> In addition, the “loose usage” of the term “spreading code” in the field is not supported by the PHOSITA witnesses.<sup>196</sup> A loose usage of a term does not make the term have the same meaning as a similar term, especially when the terms have technologically distinct aspects.<sup>197</sup> Even assuming that the term “spreading code” is used loosely in the field, no evidence supports equating Nokia’s scrambling code to the spreading code used in InterDigital’s patents.<sup>198</sup>

Additionally, expert witnesses for InterDigital and Nokia, as well as the inventor of InterDigital’s CDMA systems, understand the patent scope to be limited to spreading codes.<sup>199</sup> InterDigital’s expert witness affirmed that in the context of InterDigital’s patent, a short code is simply part of a spreading code.<sup>200</sup> The inventor of InterDigital’s technology similarly confirmed that “in this context,

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<sup>191</sup> *Id.* at 1327.

<sup>192</sup> See U.S. Patent No. 7,190,966 col.11 l.17 (filed June 29, 2005).

<sup>193</sup> See *InterDigital*, 690 F.3d at 1323.

<sup>194</sup> *Id.* at 1327.

<sup>195</sup> ’966 Patent.

<sup>196</sup> *InterDigital*, 690 F.3d at 1333 (Newman, J., dissenting).

<sup>197</sup> *Id.*

<sup>198</sup> *Id.*

<sup>199</sup> *Id.* at 1331–33.

<sup>200</sup> *Id.* at 1332.

the short code is a spreading code, just like all the other codes we use in broadband CDMA.”<sup>201</sup> The court’s construction of “code” in InterDigital’s patents, which included scrambling codes, was not corroborated by a single witness, expert, or inventor.<sup>202</sup>

#### 4. *Possible Subsequent Legal Proceedings*

*InterDigital* was reversed and remanded to the ITC for further proceedings in accordance with the decision by the two-judge majority.<sup>203</sup> If the Federal Circuit declines to rehear *InterDigital* en banc, Nokia could appeal to the Supreme Court.<sup>204</sup> Approximately a month after the Federal Circuit decided *InterDigital*, an unopposed motion for leave to intervene on behalf of LG Electronics, Inc., LG Electronics USA, Inc., and LG Electronics Mobilecomm USA, Inc. (collectively “LG”) was granted.<sup>205</sup> LG moved to become a defendant in the case.<sup>206</sup> A motion to intervene is allowed when a party claims an interest in the subject of the action that would be impaired if the motion were denied.<sup>207</sup> Although details of LG’s intervention are not yet known, motions to intervene are commonly made in cases in which the plaintiff alleges patent infringement and the intervening defendant manufactures or sells the allegedly infringing product to the initial defendant.<sup>208</sup> The intervening party usually intervenes because the party has a defense to the plaintiff’s claim of patent infringement.<sup>209</sup> Whether LG’s intervention is based on a defense to InterDigital’s claim of patent infringement that will trump the Circuit’s finding of infringement based on claim differentiation remains to be seen.

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<sup>201</sup> *Id.* at 1332–33 (quoting Transcript of Trial at 126:16–23, *InterDigital*, 690 F.3d 1318 (No. 2010-1093)).

<sup>202</sup> *Id.* at 1331–33.

<sup>203</sup> *Id.* at 1330 (majority opinion).

<sup>204</sup> *See* U.S. CONST. art. III, § 2 (giving the Supreme Court appellate jurisdiction over all other courts except for exceptions made by Congress).

<sup>205</sup> *See* InterDigital, Inc., Quarterly Report (Form 10-Q) (July 26, 2012).

<sup>206</sup> *Id.*

<sup>207</sup> FED. R. CIV. P. 24(a)(2).

<sup>208</sup> *See* FED. R. CIV. P. app. form 42.

<sup>209</sup> *See id.*

## V. CONSEQUENCES OF *INTERDIGITAL* ON PATENT LAW

The ramifications of *InterDigital* are difficult to ascertain less than half a year after the decision. However, clues about how *InterDigital* will affect the future of patent law can be found by examining the rules of the patent law system as well as the policies those rules seek to promote.

### A. *InterDigital Was Not Heard En Banc*

*InterDigital* was heard by a three-judge panel as opposed to en banc.<sup>210</sup> En banc review refers to the review of a case that has the power to change precedent by a court of exclusive appellate jurisdiction.<sup>211</sup> To hear a case en banc, a majority of active and participating Federal Circuit judges must vote to do so.<sup>212</sup> The case is then decided on its merits by a majority of the Federal Circuit judges who participate in the en banc hearing.<sup>213</sup> Since the Federal Circuit is the court of exclusive appellate jurisdiction for patent cases, it must hear a case en banc in order to depart from precedent.<sup>214</sup> However, an en banc hearing is not generally favored unless it is necessary to maintain uniformity in the court's decisions or an exceptionally important question is brought up in the prior proceedings.<sup>215</sup> Thus, in *InterDigital*, the three-judge panel lacked the authority to depart from precedent.<sup>216</sup> Unless subsequently overturned en banc, prior decisions of a panel of the

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<sup>210</sup> See *InterDigital Commc'ns, LLC v. Int'l Trade Comm'n*, 690 F.3d 1318, 1320 (Fed. Cir. 2012).

<sup>211</sup> S. Jay Plager & Lynne E. Pettigrew, *Rethinking Patent Law's Uniformity Principle: A Response to Nard and Duffy*, 101 NW. U. L. REV. 1735, 1754–55 (2007).

<sup>212</sup> FED. R. APP. P. 35(a).

<sup>213</sup> *Id.*

<sup>214</sup> ADELMAN ET AL., *supra* note 12, at 16–17. Before 1982, regional circuit courts decided patent law cases. *Id.* Vastly different results on issues such as patentability among the regional circuits (as well as within individual regional circuits themselves) caused the Federal Circuit court to be created in 1982. *Id.* The Federal Circuit was created to bring predictability and uniformity to patent law, although its success in those areas is debatable. *Id.*

<sup>215</sup> FED. R. APP. P. 35(a).

<sup>216</sup> ADELMAN ET AL., *supra* note 12, at 16.

Federal Circuit are binding precedent on later panels.<sup>217</sup> When there is a direct conflict between the decision of an earlier panel and a later panel, the decision of the earlier panel is considered the precedent that should be followed by the en banc court.<sup>218</sup>

A logical problem exists within the Federal Circuit's approach to precedent. The only way for panels to ignore prior panel decisions is through en banc action.<sup>219</sup> Thus, for a subsequent panel to ignore the decision of *InterDigital*, the Federal Circuit would have to hold an en banc hearing on the issue of the application of claim differentiation.<sup>220</sup> If no en banc hearing is conducted, *InterDigital* will remain as binding precedent on subsequent panels.<sup>221</sup> Instead of changing the law through en banc review, the current legal structure of the Federal Circuit enables two judges to change the law.<sup>222</sup> Although the Federal Circuit possesses the mechanism of en banc review with which it could unify patent law,<sup>223</sup> many different approaches could create successive contradictory decisions in the Federal Circuit before that unification occurs.

#### B. *InterDigital and Public Policy Rationales*

The decision in *InterDigital* allowed the broadening of the meaning of a claim term beyond evidence of the inventor's original ideas.<sup>224</sup> Such a broadening of meaning beyond what the inventor

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<sup>217</sup> See *Newell Cos. v. Kenney Mfg. Co.*, 864 F.2d 757, 765 (Fed. Cir. 1988) (citing *UMC Elecs. Co. v. United States*, 816 F.2d 647, 652 n.6 (Fed. Cir. 1987)).

<sup>218</sup> *Id.*

<sup>219</sup> See Christopher A. Cotropia, Symposium, *Determining Uniformity Within the Federal Circuit By Measuring Dissent and En Banc Review*, 43 LOY. L.A. L. REV. 801, 824 (2010).

<sup>220</sup> *Id.*

<sup>221</sup> *Id.*

<sup>222</sup> *Id.*; see also *InterDigital Commc'ns, LLC v. Int'l Trade Comm'n*, 690 F.3d 1318, 1320 (Fed. Cir. 2012). Only two out of three judges on the three judge panel voted that the claim term "code" should be read so broadly as to include Nokia's technology. *InterDigital*, 690 F.3d at 1320.

<sup>223</sup> FED. R. APP. P. 35(a).

<sup>224</sup> See *InterDigital*, 690 F.3d at 1331–33 (Newman, J., dissenting). The inventor understood the term "code" to be limited to spreading codes. *Id.*

conceived at the time of filing weighs heavily against the public policy purposes of the patent system.

One public policy behind patent law is the idea of a “quid pro quo” system.<sup>225</sup> The inventor receives a monopoly on his invention for a limited period of time in exchange for disclosing the details of his new invention and enlarging the public’s knowledge in that area.<sup>226</sup> While the fairness of this deal may not always be ideal for the inventor<sup>227</sup> or the public,<sup>228</sup> the ruling of *InterDigital* threatens to give more value to the inventor than is warranted under the “quid pro quo” public policy rationale of patent law. In *InterDigital*, the Circuit conferred protection for not only the invention that the inventor had in mind at the time of filing, but also for inventions for which there exists no evidence that the inventor contemplated creating.<sup>229</sup> By giving the patent owner protection for something the inventor did not disclose, the “quid pro quo” public policy rationale is upset.<sup>230</sup> Under the rationale, an inventor should only get monopoly protection if an invention he has made is useful to society.<sup>231</sup> The patent owner therefore gets disproportionate value for the patent under *InterDigital*. Instead of

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<sup>225</sup> ADELMAN ET AL., *supra* note 12, at 27.

<sup>226</sup> *Id.*

<sup>227</sup> *Id.* at 43–48. Alternatives to protecting an invention through the patent system are to maintain the invention as a trade secret or allow the invention to enter the public domain unprotected. *Id.* Trade secrets are utilized by inventors who believe the benefits of keeping an invention secret from the public outweigh a limited monopoly on that invention. *Id.* Trade secrets last as long as the secret maintains value and is kept a secret from the general public. *Id.*

<sup>228</sup> See U.S. Patent No. 4,429,685 col.4 ll.55–57 (filed July 14, 1982). This patent describes a method of transforming an animal with two horn buds growing from each side of its head into an animal having one horn in the middle of its head. *Id.* Such superfluous use of the patent system provides no benefit to the public.

<sup>229</sup> *InterDigital*, 690 F.3d at 1331–33 (Newman, J., dissenting).

<sup>230</sup> ADELMAN ET AL., *supra* note 12, at 27–31. *But see id.* at 31 n.21 (explaining criticisms of the system).

<sup>231</sup> CHISUM, *supra* note 8, at GL-23.

the actual inventor getting protection,<sup>232</sup> someone who did not have the idea (or lacks evidence of having the idea) is receiving the protection of the laws.

The *InterDigital* ruling also creates barriers for inventors with useful products to dispense them to the public. It is not clear whether Nokia will ultimately be prohibited from importing its invention to the United States, be required to pay damages to InterDigital, or face some other legal penalty. It is clear that any one of these penalties discourages investing in research to create new inventions, which hurts the public by reducing the number of useful inventions available.<sup>233</sup>

### C. *Effect of InterDigital on Validity*

Upon its issuance by the USPTO, a patent is presumed valid.<sup>234</sup> A presumption of validity includes the presumption that during examination by the USPTO, the patent met the requirements for patentability, among which is the novelty requirement.<sup>235</sup> USPTO examiners rely on the guidelines of 35 U.S.C. § 102 when determining the conditions that must be met for novelty.<sup>236</sup> Among these requirements are that the invention disclosed by the application not be known or used by people in the United States or be patented or described in a printed publication anywhere before the applicant conceived of the invention.<sup>237</sup> The invention also must not have been patented or described in a printed publication anywhere or in public use or on sale in the United States more than one year before the applicant filed the application for the U.S. patent.<sup>238</sup>

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<sup>232</sup> ADELMAN ET AL., *supra* note 12, at 127. Although Nokia did not seek a patent for its invention, it seems that under *InterDigital* it would be found invalid as found in prior art.

<sup>233</sup> *Id.* at 27.

<sup>234</sup> 35 U.S.C. § 282 (2006).

<sup>235</sup> *See id.*; CHISUM, *supra* note 8, at GL-14.

<sup>236</sup> MANUAL OF PATENT EXAMINING PROCEDURE § 706.02 (8th ed. rev. Aug. 9, 2012).

<sup>237</sup> 35 U.S.C. § 102 (2006).

<sup>238</sup> *Id.*

When patent examiners perform the novelty analysis, they are presumably relying on how the Federal Circuit interprets the invention in patents. If the USPTO did not heed the interpretations of the Federal Circuit, that would waste a considerable amount of resources, considering the Federal Circuit has exclusive appellate jurisdiction over patent law and would have the power to resolve any conflicts between the USPTO and the Federal Circuit in its favor.<sup>239</sup> Likewise, decisions by a Federal Circuit panel which change the way claim terms are understood<sup>240</sup> threaten to undermine the prior work of the USPTO. Claims which were understood in light of the specification during examination could be interpreted more broadly by the Federal Circuit in light of *InterDigital*. This could mean that claims of issued patents thought to be valid based on precedent before *InterDigital* would be invalid on the basis of not meeting the novelty requirement.<sup>241</sup>

#### D. Abuse of the U.S. Patent System

Far more troubling than the ramifications of *InterDigital* on previously issued patents is the possibility that the decision creates room for abuse of the U.S. patent system by incentivizing patent application drafters to create documents where the doctrine of claim differentiation applies. Generally, patent application drafters shy away from drafting a claim that is so broad that it may cover prior art.<sup>242</sup> Patent application drafters also must not draft a claim so narrowly that it does not cover all possible embodiments of the invention.<sup>243</sup> In light of *InterDigital*, this balance of drafting

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<sup>239</sup> ADELMAN ET AL., *supra* note 12, at 15–17.

<sup>240</sup> See *supra* Part V.B (discussing how the *InterDigital* court applied the doctrine of claim differentiation to expand the scope of a claim term beyond what precedent allowed).

<sup>241</sup> 35 U.S.C. § 102; *InterDigital Commc'ns, LLC v. Int'l Trade Comm'n*, 690 F.3d 1318, 1320 (Fed. Cir. 2012). If claim terms are broadened beyond what is supported in the specification, the claim could be anticipated by prior art and therefore be invalid on the basis of not meeting the novelty requirement.

<sup>242</sup> 35 U.S.C. § 102; CHISUM, *supra* note 8, at G1-3. Making a claim so broad that it covers prior art would render the claim invalid under the novelty requirement of 35 U.S.C. § 102. CHISUM, *supra* note 8, at G1-3.

<sup>243</sup> See CHISUM, *supra* note 8, at G1-3.

principles threatens to be skewed toward drafting broader claims which cover more than the inventor's invention. Specifically, the strategy would be to draft a broad independent claim that lacks a limitation present in a later dependent claim. The later dependent claim would describe the inventor's real invention. Nothing in the application besides the broad independent claim would suggest that the invention disclosed by the patent includes anything more than the invention described in the claim dependent on the broad independent claim. However, the specification would not explicitly limit the meaning of the claim term present in the independent claim to the meaning of the narrower claim term present in the dependent claim.<sup>244</sup>

If such a patent application were issued into a patent, the patent could be strategically utilized. The patent owner could enforce the dependent claim relating to the actual invention of the inventor without upsetting the "quid pro quo" purpose of the patent system.<sup>245</sup> The inventor contributed that particular invention to society, so there should be a right to a monopoly on the invention for a period of time.<sup>246</sup> But if the patent owner notices something in the marketplace that would infringe the broad independent claim, the patent owner could bring an infringement suit based on the independent claim. The patent owner would simply argue that

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<sup>244</sup> *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1330 (Fed. Cir. 2009); *see also* *MarcTec, LLC v. Johnson & Johnson*, 394 Fed. App'x 685, 685 (Fed. Cir. 2010) (relying on the specification to determine that the term "bonded" in an independent claim should be limited to instances in which things were bonded using heat, regardless of the presence of a dependent claim which imposed that limitation); *ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1381 (Fed. Cir. 2009). A dependent claim requiring that the end of a spike be "pointed" did not broaden the meaning of "spike" in the corresponding independent claim to be something that was not pointed. *Alaris*, 558 F.3d at 1381. The court noted that the specification repeatedly referred to the spike as being a pointed instrument and therefore broadening the meaning of "spike" beyond a pointed instrument would go against the statutory requirement of the specification describing the claimed invention in "full, clear, concise, and exact terms." *Id.*

<sup>245</sup> *See* CHISUM, *supra* note 8, § 2.01.

<sup>246</sup> *See id.*

the presumption of claim differentiation applies to the dependent and independent claims because it would be “presumptively unreasonable” for the claims to have the same scope.<sup>247</sup> Thus, the scope of the independent claim should be broadened beyond that of the dependent claim despite the patent lacking an indication that the inventor conceived anything that fell within the scope of the independent claim but outside the scope of the corresponding dependent claim. Under *InterDigital*, this argument would be successful.<sup>248</sup>

If the patent owner does not detect an opportunity to enforce such a broad independent claim, the patent owner need not utilize the independent claim. The patent owner could obtain such an independent claim at zero or minimal cost. Generally, there is no separate charge for individual claims in a patent application as long as the number of claims does not exceed twenty.<sup>249</sup> The USPTO charges a fee of \$62 for every claim in excess of twenty and a fee of \$250 for every independent claim in excess of three.<sup>250</sup> Therefore, the most a strategic independent claim as described above could cost a patent applicant is \$312; the least it could cost is \$0. A \$312 price tag is more than likely not enough to dissuade an opportunistic patent applicant from purchasing an additional independent claim that gives them an opportunity to pursue potential subsequent infringement actions.

Despite all the possible consequences of *InterDigital*, the decision could have little effect. The facts and circumstances surrounding each case are highly relevant in patent law. In addition, prudent patent drafters generally avoid drafting two claims, which could be construed as covering the same scope (although strategic future use is possible). Further proceedings will ultimately determine how *InterDigital* affects claim construction and the patent system at large.

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<sup>247</sup> *Beachcombers, Int’l, Inc. v. WildeWood Creative Prods., Inc.*, 31 F.3d 1154, 1162 (Fed. Cir. 1994).

<sup>248</sup> *InterDigital Commc’ns, LLC v. Int’l Trade Comm’n*, 690 F.3d 1318, 1330 (Fed. Cir. 2012).

<sup>249</sup> *See* 37 C.F.R. § 1.16 (2012).

<sup>250</sup> *Id.*

## VI. CONCLUSION

The presumption of claim differentiation is strong in a case like *InterDigital* in which an independent claim and dependent claim would have the same scope if the court did not accept a broader interpretation of an independent claim term.<sup>251</sup> Although redundancy should be avoided in patents where possible,<sup>252</sup> an expansion of the meaning of an independent claim term beyond the ideas of the inventor (as manifested in intrinsic and extrinsic evidence) is an undesirable prospect.<sup>253</sup> The *InterDigital* court allowed this expansion by relying too heavily on the presumption of claim differentiation and not conferring proper weight to evidence indicating that the term “code” should be interpreted as a “spreading code.” The result is a broadening of the scope of InterDigital’s patents beyond what evidence supports the inventor to have conceived at the time of filing.<sup>254</sup>

The impact of *InterDigital* is uncertain. The ruling could advantage inventors who pursue broader claims while punishing those who have yet to enter the patent system. By finding that the foreign inventor’s invention infringed on a patent that did not suggest anything similar to the foreign inventor’s invention, the Federal Circuit thwarted the foreign inventor’s expectations in the complex U.S. patent system. Many more foreign inventors, who now account for half of U.S. patents,<sup>255</sup> may be disadvantaged by having a court find their invention infringes on a patent that does not contain even a notion of their invention. The possibility of strategically writing patents based on the ruling in *InterDigital* also exists. But because *InterDigital* is a case containing very specific facts and circumstances, its effects on inventors and the patent system could be limited.

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<sup>251</sup> *InterDigital*, 690 F.3d at 1324.

<sup>252</sup> *Beachcombers*, 31 F.3d at 1154.

<sup>253</sup> ADELMAN ET AL., *supra* note 12, at 27.

<sup>254</sup> *InterDigital*, 690 F.3d at 1331 (Newman, J., dissenting).

<sup>255</sup> BUREAU OF INT’L INFO. PROGRAMS, *supra* note 1, at 125.