From: Mark Lemley [Email Redacted] Sent: Tuesday, April 21, 2015 7:53 PM To: WorldClassPatentQuality Cc: Lee, Michelle K. Subject: submission for Patent Quality Initiative Attached is a public comment for the Patent Quality Initiative. Please let me know if I need to submit it on a web site or in some special form. Mark Mark A. Lemley William H. Neukom Professor, Stanford Law School Director, Stanford Program in Law, Science, and Technology Senior Fellow, Stanford Institute for Economic Policy Research partner, Durie Tangri LLP co-founder, Lex Machina Inc. [email redacted]

If this email were legal advice, it would be followed by a bill.

Taking Functional Claiming Seriously¹

Mark A. Lemley²

I have argued elsewhere that software patentees have been writing patent claims in functional terms, attempting to lay claim to not just the particular invention they developed but any code designed to solve the same problem, configured in any way and placed on any computer.³ The ability to write such broad functional claims while using careful language to avoid the application of means-plus-function claiming⁴ is one of the biggest problems in the patent system today, giving rise to numerous invalid software patent claims and to a great deal of patent troll litigation.⁵

The PTO's Patent Quality Initiative is an admirable effort to address the problem of bad patents. But no effort to improve the quality of issued patents would be complete without tackling functional claiming in software. While it is ultimately the responsibility of the courts to interpret section 112(f) in line with its language and intent, the PTO can take important steps towards identifying and appropriately limiting functional claiming during the examination process.

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³ See Mark A. Lemley, Software Patents and the Return of Functional Claiming, 2013 **Wis. L. Rev.** 905.

⁴ 35 U.S.C. §112(f) provides that claim elements without structure will be interpreted to cover only the corresponding structure disclosed in the specification and equivalents thereof. But the Federal Circuit has regularly failed to apply that rule to claim language that does not contain the magic words "means for," whether or not the claims contain structure. *See, e.g.,* Williamson v. Citrix Online, 770 F.3d 1371 (Fed. Cir. 2014).

⁵ Lemley, supra note , at .

- First, examiners should determine whether any given claim element is a functional claim element. Often the answer will be obvious because the element is structural. But if the element does not contain obvious structure, whether or not it uses the words "means for," examiners should ask the applicant to clarify on the record whether the claim element is intended to invoke section 112(f). While that will normally happen during the written record of rejection and amendment, if the issue arises during an interview the examiner should specify in the interview summary whether or not the claim elements discussed invoke section 112(f).
- If an applicant does intend to invoke section 112(f), the applicant should be required to point out the corresponding structure in the specification that supports that meansplus-function claim element. If there is no such structure in the specification, the claim should be rejected as indefinite. In some circumstances it may be appropriate to clarify on the record what the applicant regards as equivalent to that structure. For example, if an applicant seeks to distinguish prior art on the ground that the structure she discloses is different than that in the prior art, it would be helpful to establish on the record whether the applicant regards those two structures as equivalent.

See, e.g., Function Media, LLC v. Google Inc., 708 F.3d 1310, 1318 (Fed. Cir. 2013); ePlus, Inc. v. Lawson Software, Inc., 700 F.3d 509, 518–19 (Fed. Cir. 2012); Ergo Licensing, LLC v. CareFusion 303, Inc., 673 F.3d 1361, 1362, 1365 (Fed. Cir. 2012); Noah Sys., Inc. v. Intuit Inc., 675 F.3d 1302, 1312–13 (Fed. Cir. 2012); In re Aoyama, 656 F.3d 1293, 1294, 1297–98 (Fed. Cir. 2011) (means-plus-function software patent claim invalid as indefinite for failure to disclose the corresponding algorithm performing that function); Typhoon Touch Techs., Inc. v. Dell, Inc., 659 F.3d 1376, 1384–86 (Fed. Cir. 2011) (means-plus-function software claims required disclosure of corresponding structure performing that function in the specification, but that structure did not need to be described in the form of software code); Aristocrat Techs. Austl. PTY Ltd. v. Int'l Game Tech., 521 F.3d 1328, 1337–38 (Fed. Cir. 2008); WMS Gaming, Inc. v. Int'l Game Tech., 184 F.3d 1339, 1349 (Fed. Cir. 1999) ("the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.").

- If an applicant does not intend to invoke section 112(f), and the structural component of the claim element is not obvious, the applicant should be required to identify the structure in the claim element that performs the claimed function. If the applicant cannot satisfactorily point to structure in the claim itself that performs the claimed function, the examiner should or require the applicant to amend the claim to add such structure.
- If an applicant does not provide appropriate structure for a claim element, the examiner can reject the claim for failure to comply with section 112(f). Alternatively, the examiner can point out of the absence of structure and proceed to examine the claim as a means-plus-function claim. If an examiner takes the latter course, he should make explicit on the record that the claim is being allowed only because the broadest reasonable interpretation of that claim is nonetheless limited to the structure disclosed in the specification and equivalents thereof.

By establishing on the record whether a claim element invokes section 112(f) and what structure it covers, examiners can help identify functional claims, limit them to their proper scope, and reject applications that improperly seek to control all ways of performing a function.