

How Does Examination Change Patent Claims?

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The facilitation of innovation through the patent system is premised on the fundamental idea that in return for disclosing an invention, an inventor is entitled to an exclusive right to that invention for a period of time (Eisenberg 1989). Time is central to this quid pro quo: an inventor's rights are supposed to be based on what the inventor possessed at the time of the invention, as documented in the patent application. (Fromer 2009; Seymore 2009; Rantanen 2013).

Reality imposes limitations on this theoretical ideal, however. Patent law permits applicants to amend the original set of claims, or even substitute entirely new claims, during examination of the patent, a process that can occur over the span of years. The opportunity to change the scope of claims after the initial filing raises the concern that applicants may obtain rights beyond the originally-disclosed invention. (Chiang 2010). Patent law doctrine attempts to push back via the legal doctrines of enablement and written description, but the effectiveness of those requirements remains a subject of debate. (Rantanen 2015).

This paper uses empirical data to evaluate patent claim scope and its relationship to the primary temporal anchor for patent claims, the patent specification. Building on studies of claim scope using word counts (Kuhn et al 2019, Marco et al 2019) and an early approach to textual claim similarity analysis (Lichtman 2004), we use textual analysis to look at the linguistic similarity between the claims at filing and at grant. This comparison allows for a more nuanced assessment of the amount of change occurring between filing and grant. In addition, drawing on a prior study of ancillary claim language (Freilich 2018), we assess the degree to which claims at filing and grant are linked to the technical disclosure of the patent, commonly referred to as the specification. This comparison provides a measure of the relationship of each set of claims to the primary temporal anchor for patents and helps assess not just whether the claims have been changed or narrowed, but whether they have remained closely aligned with the disclosure of the specification or instead have moved away from what was initially disclosed. By combining the two existing measurement types with our textual comparison, we are able to construct an evaluation of claim change during prosecution that we then assess across examiners and technological fields using regression analysis.

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