ABSTRACT

No longer limited to emulating and displacing blue-collar labor, robotic manipulators may be the next information technology to disrupt the political economy of the learned professions. Increasingly, the designs of patented surgical systems embody kinematic data captured from procedures performed by expert surgeons. Even though surgeons are in no danger of being replaced anytime soon, their contributions to the field of robotic surgery are already being devalued by prevalent patenting practices that render even the most expert surgical skill into ordinary skill in the art.

This Article identifies certain mechanism and mechanical process claims in the field of surgical robotics as problematic in two interrelated respects. First, such claims may evade the exclusion of abstract ideas from patentable subject matter, even when they preempt essentially all uses of an abstract kinematic property in the field of robotic manipulators. Second, to the extent that such claims are delineated by reference to a reduced set of kinematic properties, their resulting overbreadth is likely to impede downstream innovation based on subsequent advances in surgical practice. These observations parallel long-running debates over the patenting of gene probes, raising analogous issues that are likely to be litigated in the coming decades.