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Title: The 'Notion of Fairness' in Intellectual Property Law and the Digitization of Data

Abstract

The challenge of using and linking large amounts of interdependent data sets from multiple industry and/or academic stakeholders to accelerate the development of new and improvement innovations, particularly in advanced manufacturing, is fraught with legal and practical issues. Known as digital twinning, manufacturers optimize productivity by mapping articles of manufacture to a digital platform and pairing it with real-time manufacturing to virtually manage risks by taking appropriate corrective measures. The predictive capacity of digital twinning is said to increase product safety and accelerate the development of new and improvement innovations through virtual simulations.

However, creating a digital twin requires parties, such as original equipment manufacturers (OEMs) and associated suppliers, to divulge information that may comprise trade secrets and/or proprietary design and process of manufacture that enables the OEMs to remain competitive. If the proprietary information cannot be protected by traditional forms of IP, the OEMs will likely safeguard its commercial interests at the expense of sharing. The question is how can multiple stakeholders retain certain rights (ie. ownership, attribution, right to participate in profits) to contributions of data while participating in the benefits of digital twinning? The notion of fairness, as used in IP law, includes protecting innovators against free-riding and unauthorized appropriation of intellectual creations. However, when intellectual creations contribute to an innovation but fall outside the scope of IP protection as traditionally defined, then where is the fairness offered under the IP framework?

This paper examines whether a combination of tools under the current IP regime may be able to incentivize the digitization of data, with particular reference to the trade secret directive in conjunction with blockchain technology and contractual arrangements such as 'technology pooling' and

'knowledge commons'. A framework that allows for the recognition of contributions to an innovation may translate into a revenue-sharing model that in turn may lead to more openness and overall acceleration of product development.