

*Patents and Information Containment:  
The Case of Hydraulic Fracturing in Shale Gas Extraction*

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As the focus in satisfying sustainability objectives turns increasingly to new technology, intellectual property rights (IPR) become an important factor. IPRs have the potential to influence both information diffusion as well as technology access. As such, they may dictate what outcomes emerge; knowledge of the IPR environment is key to understanding the future of sustainable business. This paper considers the influence of patent rights on natural gas extraction (hydraulic fracturing) technology, an essential element of the transition to more sustainable energy sources. We describe the role of patents as the most powerful IPR and seek to understand how they are shaping the environment in terms of exclusion and information control. Our work builds upon previous theoretical research that suggests that patents can have broader strategic importance than simply excluding competitors. In particular, we consider empirical evidence for the emergence of an information containment paradigm that runs counter to the disclosure mission of patents. We utilize a novel, unique and comprehensive database of patent rights and test for indicators of firm use beyond competitive advantage.

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