

Working Paper

The Linux Kernel Development As A Model of Knowledge Creation

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Abstract

Applying the method of inductive theory building, we have developed a case study based on the Linux kernel development process to build a model of Open Source knowledge creation. The Linux model touches upon a broad set of issues revealing the nature of our connected society because the Linux project was among the first attempts that make a deliberate effort to use globally connected software developers as the main source of talent and input. As firms compete for the scarce resource of talent, the Linux model demonstrates a successful example of knowledge creation by thousands of talented knowledge workers who are dispersed across geographical and organizational boundaries. By comparing and contrasting the Linux model with the traditional/commercial model of software development, we show how the Open Source model achieves high product quality. We also address the limitations of the model and discuss several areas where the model is likely to be applicable outside the Open Source community. In the future, researchers need to analyze how commercial firms have adapted the model and examine the conditions under which the adapted models would bring strategic advantages as well as liabilities.