

Firms as Incubators of Open-Source Software

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Many successful open-source projects have been developed by programmers who were employed by firms but worked on open-source projects on the side because of economic incentives like career improvement benefits. Such side work may be a good thing for the employing firms, too, if they get some strategic value from the open-source software and if the productivity of the programmers on these projects improves through learning-by-doing effects. However, the programmers may work more or less on these projects than what is best for the firms. To manage the programmers' efforts, the firms set appropriate employment policies and incentives. These policies and career concerns then together govern the programmers' effort allocation between the open-source and proprietary projects. We examine this relationship using a variant of the principal/agent model. We derive and characterize optimal employment contracts and show that firms either offer a bonus for only one of the two projects or do not offer any bonuses. However, if attractive alternate employment opportunities are available, they change their strategy and may offer bonuses for both projects simultaneously.

*To read the Full paper, please contact Arun_Kumar@isb.edu