

Chapter XIV

Developing Country Perspectives on Software: Intellectual Property and Open Source. A Case Study of Microsoft and Linux in China

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ABSTRACT

This chapter looks at implications of the emerging global intellectual property (IP) regime for developing countries (DCs) and their attempts to improve their technological capabilities. It further highlights the new perspectives for DCs opened up by the emergence of non-proprietary (open source/free) software, such as Linux. A case study of the battle between Microsoft and Linux in China is used to explore the dilemmas faced by China in determining what IP regime (strict or weak) to adopt, and the threats and opportunities that either may pose for indigenous technology development. Based on the case analysis, the chapter criticizes the simplistic polarized views that have been presented of the implications of the global IP regime and of the potential of non-proprietary software. It explores some of the complex considerations about the interplay between technology strategy and IP protection for China and discusses the policy implications for China and other DCs.

INTRODUCTION

There has been increasing pressure on developing countries to adopt intellectual property (IP) regimes alongside the development of the globalization process, under which major technology holders in the developed world seek to strengthen technology protection in developing countries (DCs) and other emerging markets. Conventional modernization thinking suggests that a strong IP regime will promote growth and the development of technological capabilities in DCs by attracting foreign investment and technology transfer. An alternative, critical current, with its roots in dependency theory (Colman & Nixon, 1994), highlights the threats to DCs from simply adopting Western IP regimes. A similar dichotomy of views has emerged in debates about the respective advantages of proprietary and non-proprietary (e.g., open source) software—with the latter being held out as providing important opportunities for DCs and an alternative strategy to dependence upon the Western multi-national enterprises (MNEs) that have achieved near-monopoly positions worldwide in some software market segments. A case study of the recent history of Linux and Microsoft in China calls into question these simplistic polarized accounts (Dutt, Kim, & Singh, 1994) of the choices before DCs. It highlights the complex interplay between IP and innovation and the balance of considerations DCs face in designing their IP regime and strategies to promote indigenous capabilities in the key area of software.

This paper first seeks to explicate the impact of IP issues on indigenous and exogenous technology development in DCs. It focuses on the implications for strategies in the software industry, partly because IP issues in the software industry are subject to considerable concern even in developed countries, and because software has been considered a more promising field for DCs to exploit than other technologies. Specifically, it explores some of the key issues that a DC like China may need to consider in establishing its own

IP regime while promoting indigenous technology development and use.

The second concern of the paper is to discuss how China may exploit opportunities from the emergence of non-proprietary software (open source/free software) that is protected by general public license (GPL)—COPYLEFT in contrast with COPYRIGHT.

A case study of the battle between proprietary software (the Microsoft operating system) and non-proprietary software (the Linux operating system) in China is used to explore some of the complex considerations about the interplay between technology strategy and IP protection and their implications for a developing country like China.

The case has potentially broader significance, to the extent that the outcomes of the contest between Microsoft and Linux in China may upset the current global technology trajectory and pose significant challenges to the current international IP regime—in particular, in software protection—and thus may have an impact on software development globally.

CONTEXT OF IP PROTECTION AND A DILEMMA FOR DCS

In a world characterized by rapid technological development, we find that most advanced technologies are created by corporations in the developed world. Western governments—increasingly concerned about their corporations protecting their technological know-how from being acquired and copied by others—are therefore keen to strengthen and extend current IP regimes. With the rapid development of globalization, protecting Western technologies in emerging markets and DCs becomes imperative. These powerful pressures are represented by trade-related IP rights (TRIPS) and other international agreements. DCs are under intense pressure to adopt the same IP regimes.

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