

GHANA COMMUNICATION TECHNOLOGY UNIVERSITY

INSTITUTE OF CONTINUING AND DISTANCE EDUCATION (ICDE)

COURSE CODE	CIIS 152
COURSE TITLE	Introduction To Information System
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1. How do companies benefit from releasing their proprietary software as open source?

Companies benefit from open-sourcing proprietary software by harnessing global community support, which accelerates innovation through collaborative development and peer review, leading to more robust and secure code. This strategy significantly expands market reach by establishing their technology as a standard, as seen with Google's Android. The resulting ecosystem creates new revenue streams through support services, premium features, and cloud hosting, fueling long-term growth far beyond the value of the original closed code. Releasing proprietary software as open source is not about giving away value for free; it's a strategic move that can provide significant long-term benefits. Companies benefit in several key ways:

Accelerated Development and Innovation: By opening the source code, a company can tap into a global community of developers. These external contributors can submit bug fixes, develop new features, and improve security at a pace and scale an internal team could never match. This turns the product into a collaborative project maintained by a passionate community.

Improved Software Quality and Security: With more eyes on the code, vulnerabilities and bugs are found and fixed much faster. The open scrutiny leads to more robust, secure, and stable software.

Talent Acquisition and Brand Building: Open source projects are fantastic for attracting top-tier developer talent. Developers want to work with and contribute to exciting technologies. A strong open-source project enhances a company's reputation as an innovator and a supporter of the developer community.

2. How do software firms in the East, in particular, benefit from releasing their source code?

While the benefits above are global, firms in Eastern technological hubs (like China, India, and Southeast Asia) leverage open source in some distinct ways:

Rapid Catch-up and Localization: Open source provides immediate access to cutting-edge Western technology. Firms can avoid reinventing the wheel by building upon existing mature open-source projects (e.g., Linux, Kubernetes, Android). This allows them to close the technology gap rapidly and focus their R&D efforts on localization—adapting software for local languages, regulations, and market needs.

Building Ecosystems in Emerging Markets: Companies like Alibaba and Tencent have open-sourced major projects. By doing so, they are not just giving back; they are positioning themselves as leaders and setting the architectural standards for the entire regional market, ensuring their

platforms and cloud services (Alibaba Cloud, Tencent Cloud) become the default choice.

Global Recognition and Collaboration: Contributing significantly to major international open-source projects (like the Linux Kernel) or launching successful own projects helps firms from the East gain credibility and recognition on the global stage. It facilitates collaboration with developers and companies worldwide, breaking down geographical barriers.

3. Select a business and describe how open source innovation can give it a comparative advantage.

A company like Huawei could use open source innovation to gain a powerful comparative advantage. By open-sourcing key components of its HarmonyOS, it could build a global developer community to rapidly create apps and services, making its ecosystem more attractive and competitive against established rivals like Android. This transparency would also build immense customer and partner trust in its platform's security and longevity, crucial after facing international scrutiny. This shift to a community-driven model could fast-track innovation and help Huawei transition from a hardware vendor to a leader in the open-source software ecosystem.