

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?

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:

a. Talent Acquisition and Brand Building: Open-source projects are powerful tools for attracting exceptional developer talent. Many developers are drawn to contributing to impact and innovative technologies. By maintaining a strong open-source presence, a company strengthens its reputation as both an industry innovator and a supporter of the developer community.

- **b. Accelerated Development and Innovation:** Open-sourcing code allows a company to leverage a global community of developers. These contributors bring diverse expertise—fixing bugs, adding features, and enhancing security—at a speed and scale far beyond what an internal team alone could achieve. The product evolves into a collaborative effort, powered by a passionate and engaged community.
- **c. Improved Software Quality and Security:** Open scrutiny ensures that bugs and vulnerabilities are identified and resolved quickly. With more contributors reviewing the code, the software becomes more robust, secure, and reliable.

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 gives companies instant access to advanced global technologies. Instead of reinventing the wheel, they can build on proven platforms like Linux, Kubernetes, and Android—closing the technology gap quickly. This frees up R&D resources to focus on localization, tailoring solutions to local languages, regulations, and market needs.

Building Ecosystems in Emerging Markets: By open-sourcing key projects, companies like Alibaba and Tencent not only give back to the community but also shape the technological standards of their regions. This strategy positions their platforms and cloud services (e.g., Alibaba

Cloud, Tencent Cloud) as the default choice, reinforcing their leadership and influence.

Global Recognition and Collaboration: Meaningful contributions to major open-source projects (e.g., the Linux Kernel) or launching successful initiatives of their own earn firms global credibility. This fosters collaboration with developers and companies worldwide, breaking down geographical barriers and strengthening international influence.

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

Alibaba Cloud leverages open source to aggressively compete against global giants like AWS and Microsoft Azure. By open-sourcing its core technologies, such as the Apache Dubbo RPC framework and the Dragonfly file distribution system, Alibaba achieves several key advantages. First, it builds immense credibility and trust with developers worldwide, positioning Alibaba Cloud as a platform built on and for open innovation, not just a vendor. Second, it directly fuels its core business: cloud adoption. As developers standardize on Alibaba's open-source tools, they are naturally incentivized to deploy their applications on Alibaba Cloud for optimal integration and performance, creating a powerful growth engine. This strategy allows Alibaba to rapidly expand its global market reach and ecosystem without solely relying on its own R&D, turning the global developer community into its innovation arm.