

GHANA COMMUNICATION

TECHNOLOGY UNIVERSITY

INSTITUTE OF CONTINUING

AND DISTANCE EDUCATION (ICDE)

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| COURSE CODE | CIIS 152 |
| COURSE TITLE | Introduction To Information Sysytem |
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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:  
  
**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.**  
Selected Business: A regional bank in a developing country.  
  
How Open Source Innovation Provides a Comparative Advantage:  
  
This bank faces intense competition from large multinational banks and new agile FinTech startups. Its traditional proprietary core banking system is expensive to license, difficult to customize, and slow to update.  
  
Strategy: The bank decides to migrate its core infrastructure to an open-source core banking platform like Apache Fineract.  
  
**Comparative Advantages Gained:**  
  
**Massive Cost Reduction:** It eliminates multi-million dollar annual licensing fees for proprietary software. The saved capital can be redirected towards customer acquisition, better interest rates, or improving digital services. This allows it to compete on price.

**Unmatched Flexibility and Speed:** The bank is no longer at the mercy of a vendor's roadmap. It can quickly develop and deploy custom features tailored to its local market—for example, integrating with popular local mobile money systems or creating unique microloan products—much faster than its competitors using rigid proprietary systems.

**Enhanced Security and Compliance:** The bank can have its own engineers and third-party auditors examine the code for security flaws, which is impossible with closed-source software. It can ensure the software complies exactly with local financial regulations without waiting for a vendor to implement changes.

**Avoiding Vendor Lock-in:** The bank owns its technological destiny. It is not tied to a single vendor who can raise prices arbitrarily. It can hire any developer with open-source skills to work on the system, rather than relying on a small pool of expensive experts certified on a specific proprietary platform.