# Business Models of Open Source Software

Nov. 2017

Prof. Kim, Jong Bae(Ph.D.)

### **Professor**



Name: Kim Jong Bae

**Department:** Graduate School of Software,

Soongsil University

E-mail: kjb123@ssu.ac.kr

#### <Books>

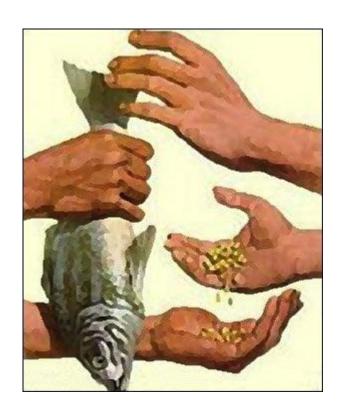
- Open Source 2.0(2010)
- Open Source Software: A Survey from 10,000 Feet(2013, Translation Book)
- The Definitive ANTLR4 Reference(2014, Translation Book)
- Agile Technologies in Open Source Development(2015, Translation Book)
- Software Development: An Open Source Approach(2016, Translation Book)
- An Introduction to R for Spatial Analsis & Mapping(2016, Translation Book)
- The Business Model for Open Source Software(2017)

## Value? Use Vs. Mystical



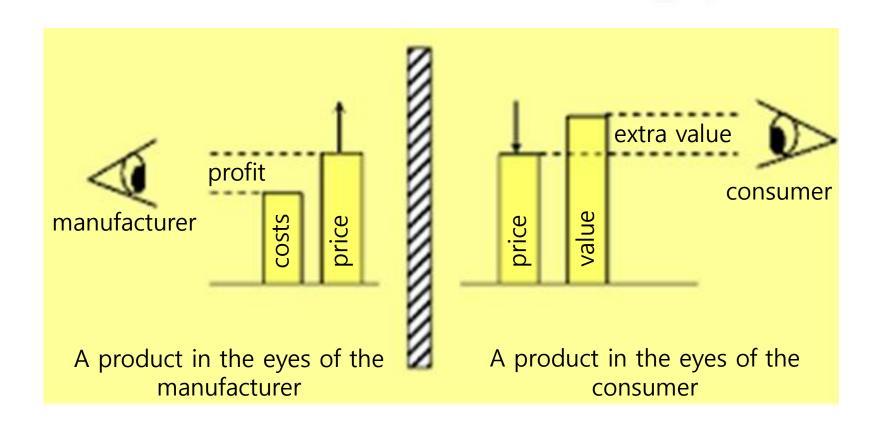
Use Value: "The utility of a thing makes it a use value....
Use-values become a reality only by use or consumption."

## Use Value Vs. Exchange(Sale) Value

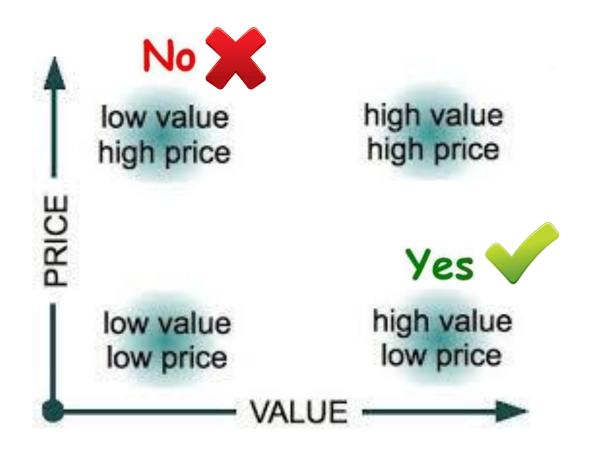


Exchange Value: a relation, "as the proportion in which values in use of one sort are exchanged for those of another sort," an equation of commensurability... and then some.

## Value ≠ Price

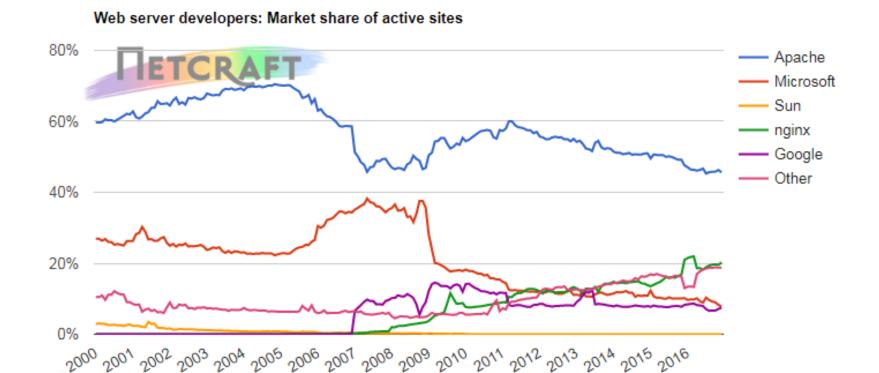


### Value & Price



"Price is what you pay. Value is what you get." -Warren Buffett

## Market share for top Web servers across all domains according to Netcraft (http://www.netcraft.com)



## **Evolution of Open Source Software**

#### Middleware

- · WAS: JBOSS, Jonas, Geronimo
- DB: MySQL, PostGres, Cloudscape, Ingres, SAPdb, BerkeleyDB
- Development Tool: Eclipse
- Stack Mgmt Tools: OpenPKG, Integration
- SASH: Spring, Axis, Struts, Hibernate

#### **Applications**

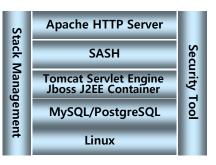
- BI: Pentaho
- BPM: JBPM
- · CMS: Alfresco
- LDAP: OpenLDAP
- ERP: Compiere
- CRM: SugarCRM, Compiere
- Healthcare: MedSphere
- Management: Nagio, OpenNMS

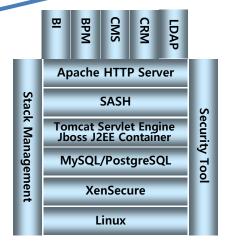
OS & Web Server

OS: FreeBSD
Linux – RedHat,
SuSE

WS: Apache

Apache HTTP Server
Tomcat Servlet Engine
Jboss J2EE Container
MySQL
Linux



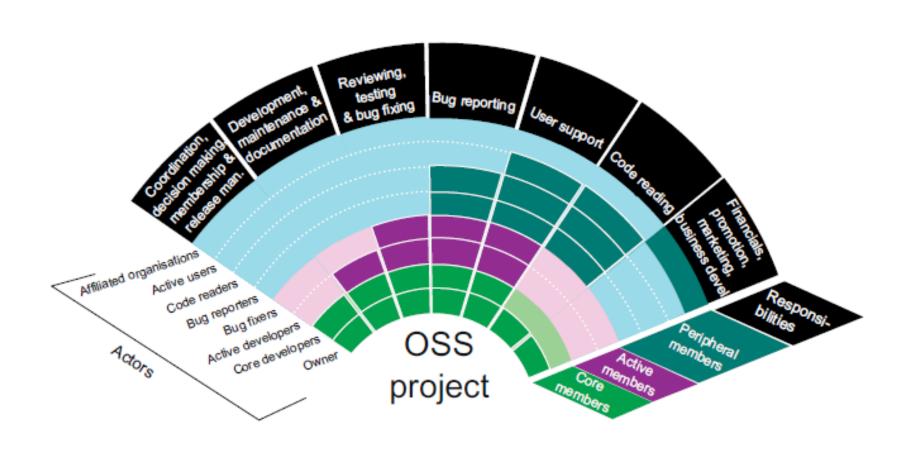


Linux

## **Business and Strategic Advantages of Moving into OSS**

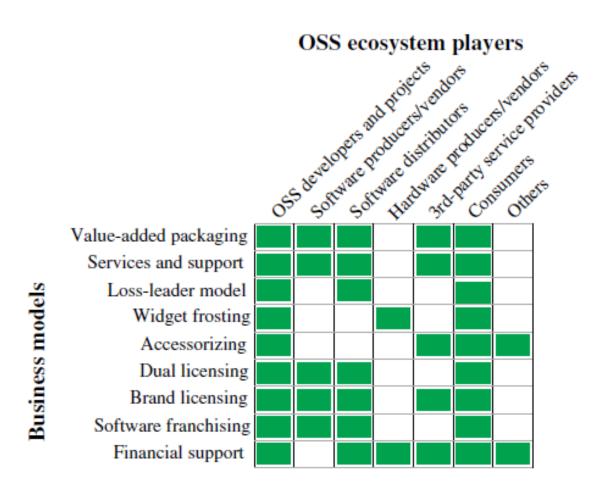
User base and community	Market placement and competition	Revenue stream and financials
<ul> <li>User base development</li> <li>Information about market</li> <li>Innovation dissemination</li> <li>Productivity increase</li> <li>Access to customer needs</li> <li>External developers use</li> <li>Access to new skills and Practices</li> </ul>	<ul> <li>Approach restricted markets</li> <li>Increase reputation</li> <li>Attack competitors</li> <li>Preempt development of closed standards</li> <li>Embrace underdog</li> <li>mentality</li> <li>Escape from vendor lock-in</li> </ul>	<ul> <li>Enable new services</li> <li>Increase demand for complementary services</li> <li>Reduce development costs</li> <li>Lower break-even points</li> <li>Introduce new revenue Streams</li> </ul>

## **Actors of OSS Project Communities**

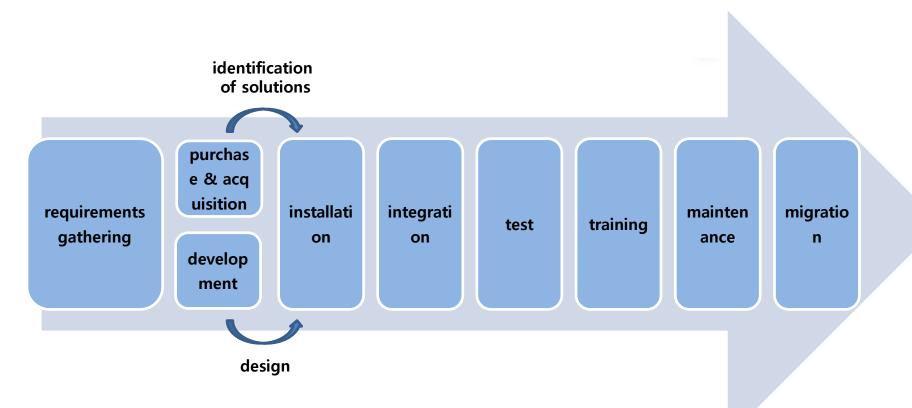


## Typical OSS Business Models & OSS Ecosystem Players

by Stephanos Androutsellis-Theotokis



## **Business Opportunities with Software(1/2)**



"Process of technology adoption"

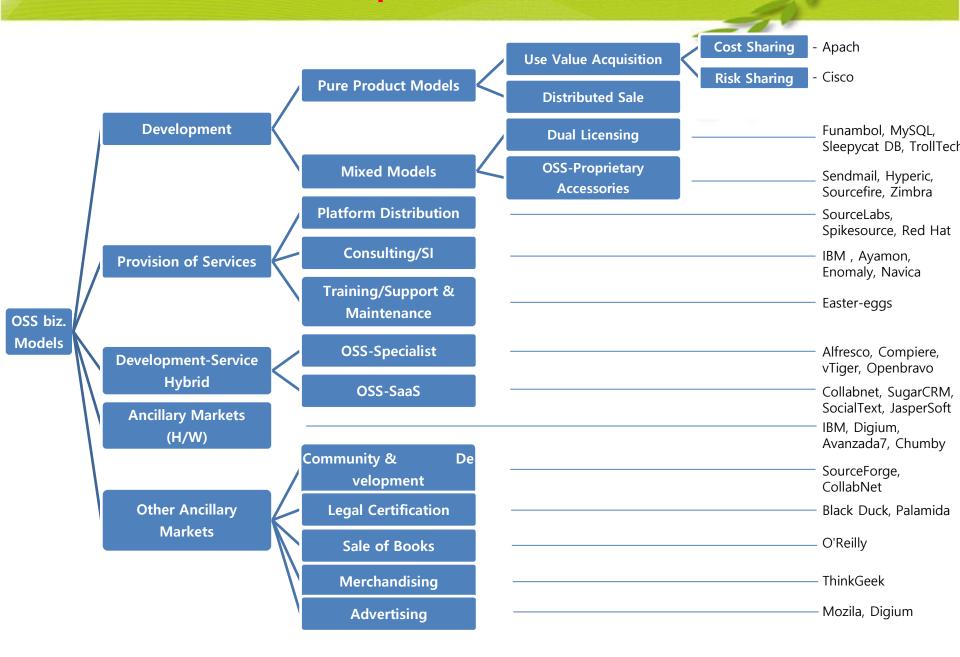
## **Business Opportunities with Software(2/2)**

	SW1	SW2	SW3	•••	SWn
Development	X	Х			
(Sales &) Installation	Х	Х			
Integration	Х	X			
Certification	Х	Х			
Training	Х	Х			
Maintenance & support	Х	Х			
Migration	X	Х			

"Vertical specialisation or Horizontal specialisation"

	SW1	SW2	SW3	 SWn
Development				
(Sales &) Installation				
Integration				
Certification				
Training	Χ	Χ	X	 X
Maintenance & support	X	Χ	X	 X
Migration				

## **Business Models of Open Source Software**



### Prerequisites, Deciding Factors and Concerns

- Evaluate the Market for the Target Product
- Determine Development Community Interest
- Decide what Parts of the Product to Open-Source
- Balance Short Term Switching Costs
- Consider New Processes, Infrastructure and Environment
- Ensure the Correct Mentality is Present
- Sanitize Code
- Select Appropriate Business Model
- Select Appropriate License
- Decide on Marketing Approach

## Q & A

## THANK YOU!