Chapter 14

OPEN SOURCE SOFTWARE: PLACEBO OR PANACEA?
PANEL 3

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Abstract: The Open Source Software (OSS) concept abounds with paradoxical issues which is one of the primary reasons why it is so interesting: For example, the basic premise that software source code—the 'crown jewels' for many proprietary software companies—should be provided freely to anyone who wishes to see it or modify it. Also, the tension between collectivism and individualism in the overall movement, the balance between modesty and supreme ego on the part of 'code god' project leaders, the balance between anarchy and control at the project level, the manner in which organisations make money from free software. These are all extremely interesting issues which will be the focus of this panel.

1.   OPEN SOURCE SOFTWARE: PLACEBO OR PANACEA?

Open Source Software has attracted enormous media and research attention since the term was coined in February 1998. The concept abounds with paradoxical issues which is one of the primary reasons why it is so interesting: For example, the basic premise that software source code—the 'crown jewels' for many proprietary software companies—should be provided freely to anyone who wishes to see it or modify it. Also, there is a tension between the altruism of a collectivist gift-culture community and the

inherent individualism that a reputation-based culture also implies. Furthermore, its advocates suggest that OSS represents a paradigm shift in software development which can solve what has been somewhat controversially termed the 'software crisis' (i.e. systems taking too long to develop, costing too much, and not working very well when eventually delivered). These advocates point to the quality and reliability of Open Source Software, its rapid release schedule, and the fact that it is available without charge. Other supporters of OSS believe that it is an initiative which has implications well beyond the software field and suggest that it will be the dominant mode of work for knowledge-workers in the information society.

However, despite these claims, a closer analysis of the OSS phenomenon suggests that there is a complex range of challenges which must be overcome if OSS is to survive and prosper. This panel identifies and discusses these factors. Jesper Holck will describe two OSS projects with a focus on how they must carefully balance anarchy (in the sense of individual autonomy) with control. Danny Petterson will put the case for using the OSS model successfully in a small IT integrator company, and Kim Østrup will discuss future potentials and limits of OSS and open standards from an industry point of view. Finally, Brian Fitzgerald will consider fundamental challenges to the OSS model from software engineering, business/economic, and socio-cultural perspectives.

1.1   Organization of Open Source Software Development

Jesper Holck will focus on the organization of OSS projects. In order for an OSS project to be successful, it has to attract both users and developers, and in doing this it has to make a careful balance between anarchy and control. In order to be accepted by large communities of users, the software has to be of high quality, be effectively distributed, and users must be able to receive satisfactory support; these aspects all point to a need for high level of quality control. On the other hand, in order to attract voluntary developers, it should be easy and rewarding to join the project, which points to a need for minimizing the bureaucratic procedures necessary when contributing to the project. Additionally, many major OSS projects face the challenge of coordinating the efforts of hundreds of developers, geographically distributed over several continents and seldom or never meeting face-to-face. In his talk Jesper will outline how two large OSS projects (FreeBSD and Mozilla) have organized themselves in order to attract both users and developers and balance anarchy with control.

1.2   Selling and Implementing Open Source Software

Working with Open Source in an organization selling and implementing IT solutions, Danny Petterson will discuss the value Open Source applications and operating systems can bring to costumers and the issues regarding the sales of Open Source-based solutions.

The presentation will focus on:
- Open Source — how to sell know-how
- What kind of customers adopts Open Source?
- What kind of Open Source is a commercial success (from the solution seller's point of view)?
- Examples of small costumer-solutions for different tasks

1.3   Open Source from an industry perspective

With his extensive background both in IBM, a major player in the Open Source Software field, and in numerous Danish IT-related organizations, Kim Østrup will in his presentation focus on
- The need for Open Platforms, Open Source, and Open Standards
- The development model of Open Source Software
- The visions of Autonomic Computing and Grid Computing

1.4   Challenges to Open Source Software

Brian Fitzgerald will focus on challenges to the OSS model from the following perspectives:

1.4.1   Challenges from a Software Engineering Perspective

- OSS is not a revolutionary paradigm shift in software engineering
- Not enough developer talent to support increased interest in OSS
- Code quality concerns
- Difficulties of initiating an OSS development project and community
- Negative implications of excessive modularity – the Achilles heel
- Insufficient interest in mundane tasks of software development
- Version proliferation and standardization problems

1.4.2   Challenges from a Business Perspective

- Insufficient strategic nous
- Free beer rather than free speech more important to OSS mass market
- Insufficient transfer to vertical software domains

– OSS a victim of its own success

1.4.3 Challenges from a Socio-Cultural Perspective

– OSS has become part of the establishment
– Burn-out of leading OSS pioneers
– Unstable equilibrium between modesty and supreme ability required of OSS project leaders
– Alpha-male territorial squabbles in scarce reputation culture

2.   ABOUT THE PANELISTS

Jesper Holck is a Master of Science from the Danish Technical University with a PhD in Computer Science from Roskilde University. He has held positions at Christian Rovsing, the Danish Technical University, Roskilde University, and the Business College in Ballerup; he is currently Assistant Professor at Copenhagen Business School, where his main research area is systems development.

Danny Petterson is educated as an IT-professional from Roskilde Business School, Denmark, in 1992, and has worked with Unix, Open Source, databases and storage systems since 1996. The experience has been in a variety of functions as a systems administrator, consultant and researcher. For the time being Danny is employed in Dimension Danmark A/S with focus on commercial implementation and support of Unix, Open Source and database-solutions.

Kim Østrup graduated in economics with a Bachelor of Politics from the University of Copenhagen before joining IBM Denmark in 1971, where he today is External Programs Executive for Nordic. Østrup also holds a number of positions in industry, including vice-chairman of the Danish IT-industry Association, chairman of the Danish electronic research Library, and member of the boards of ITEK (the Danish IT trade organization), the IT University of Copenhagen, and the Danish Chamber of Commerce.

Brian Fitzgerald holds the Frederick A Krehbiel II Chair in Innovation in Global Business and Technology at the University of Limerick, Ireland. He has also held positions as Visiting Professor at Northern Illinois University in the US, the University of Gothenburg in Sweden, and Northumbria University in the UK. He has been Associate Editor for the *Information Systems Journal* and *Data Base,* and his publications include 6 books and more than 70 papers published in international journals. He has also presented research at a number of international conferences, and spent more than fifteen years in industry, prior to entering academia.