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Success Factors of Open Source Projects

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Introduction

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History

- The concept of free software is an old one as in former times computers were research tools in the universities

- software was freely distributed in these days and

- programmers were not paid for the software programs themselves but for the act of programming

- restrictions originated from the computer's triumphal march into the business world

History

- In 1984 free software arose as a political idea which was promoted by Richard Stallman

- who formed the Free Software Foundation and its GNU Project

- Stallman defined a set of rights for software users under the premise that people should have more freedom and codified them in the GPL

- many others followed his example and contributed free software under the GPL

The Open Source Definition
Essentials

The Open Source Definition as a bill of rights for the computer user mainly comprises

- the right to make copies of the program, and distribute these copies

- the right to have access to the software's source code

- the right to change and improve the program

More Basics

Open Source is

- a philosophy
- a way to develop software
- and an economic model

OSP originated from the Internet which is required for

- remote collaboration
- the sharing of resources like CVS
- the distribution of software

Models

- Most famous is „The Cathedral and the Bazaar" metaphor which stands for highly centralized commercial projects on one side and totally decentralized open source projects on the other

- „Open Source as academic research" introduced by Nicolai Bezroukov who classifies programming as a special case of a scientific activity – not unlike the creation of applied theory

Models

Economic Models
- Attention Economy
- Cooking-pot Markets

Virtual Decentralized Networks
- The Virtual Roof

Psychological Models
- Reflect on social motives like reputation, competition or simply fun

Success or Flop ?

- Most open source projects start with a kind of ad hoc coordination

- only very few persons in any given OSP have enough know-how to coordinate and structure work

- poor coordination is one of the main   obstacles on an OSP's way to success

- effectiveness cannot be achieved without a minimum of structure

Success Factors for Community Networking

- to establish a strong network with its after-effects the number of participants (developers, contributors and the user base) in an OSP must go beyond a critical threshold, i.e. there must be active marketing and promotion of the OSP

- members of an OSP are usually spread all over the world – they need a central place of appointment, a bulletin board, an attractive website with the possibility of documentation and fora for support and communication amongst all kinds of community members

- ideas and viewpoints of others in any respects must be accepted, appreciated and incorporated – if appropriate

Success Factors for Community Networking

- stability, openness, transparency and fast response times for these communication and information exchange activities with a high topicality and quality of contents

- conferences, developer meetings and workshops about a special subject

- a sense of community together with clear dispute resolution mechanisms – in a democratic sense of decision making

- Initiation of self-organization processes like support of new participants by experienced community members

Successful Community Networking:
Conclusion

A flat organization cannot fit the needs for coordination, guidance and involvement in many respects. This means that there must be project management!

Success Factors for Software Development

- short intervals for new releases and application and testing by as many users as possible (predictability)

- a clear declaration and identification of beta- and stable releases

- a comprehensive documentation of the code and a roadmap for development

- general preparations for (by a core team) and following discussion of requirements and targets of further development in the community

Success Factors for Software Development

- definition of preferences and priorities of certain projects

- avoidance of monolithic code

- permanent quality management

- a comfortable opportunity for distributed software-development with a concurrent versions system

- permanent bug-fixing

Successful Software Development:
Conclusion

Besides project management there must be a competent technical core of developers who guarantee ongoing development, quality of the product and support in a growing community!

Summary

Economic aspects were not subject of this proposal but nevertheless they cannot be neglected if an OSP wants to be successful.

If all sketched aspects like project management, software development and the economic side are taken into consideration is what follows:

OSPs like CSPs need some kind of a business model!