Who's there?

Context in Hybrid OSS development

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CONTENT

CONTEXT IN SOFTWARE DEVELOPMENT

THE CASE: QT COMPANY ECOSYSTEM

RESULTS:
A METHOD FOR ANALYSING CONTEXT
NEW CUSTOMER INSIGHT

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CONTEXT IN SOFTWARE DEVELOPMENT

• No common consensus or a general definition exists.

• The bigger and more complex a project, wider and more detailed the context is.
A DEVELOPER'S CONTEXT

Technologies and tools
- Programming language, code conventions
- Software architecture
- Tools: IDE, pipeline toolchain

Practices
- Domain knowledge, tasks
- Team, communications
- Workflow coordination
- Governance processes
- Organization and its culture
Context in Open Source development
Community driven development

- Freely accessible source code
- Peer production, self-organization, meritocratic governance
- Open communication
- Low barrier for joining

- Developers are participating for:
  • Enjoyment, learning, self-fulfillment
  • Compensation
  • Ideological reasons

Shared online tools

New business models

- Developing the SW itself
- Delivering it
- Building applications
- Offering services
Hybrid Open Source development

Multi-stakeholder environment
where companies and voluntary developers collaborate to achieve their goals through developing and delivering software.
Shared, business-driven platform where commercial and non-commercial stakeholders interact and contribute.

Online tools provide touchpoints for developers

A modern SWD pipeline is governed by the “industrial core” company to a degree.
VARIOUS GOALS DRIVE DEVELOPMENT

• Companies
  - Business development
  - Developing the existing products and services or creating new ones
  - Satisfy needs of customers
  - *In the hybrid context competitors collaborate!*

• Individuals
  - Own interests, e.g. user experience, bugs and new features
  - Self-fulfillment, me-too
It can be understood in different ways by different stakeholders.
Understanding context:
The case of Qt
THE Qt SOFTWARE

Software suite for multi-platform application development

- 20 years of work
- 1.1 million downloads (2014-)
- 5 000 customers
- Active developer community of commercial and voluntary stakeholders
THE Qt COMPANY

Collaborates for development

- Develops the software
- Hosts development platforms
- Keeps community alive

Runs a business

- Offers a hybrid licensing business model: OSS and commercial
- From independent developers to enterprise customers
- Offers support and consultancy
RESEARCH

QUESTION 1:

HOW CAN THIS CONTEXT BE OBSERVED?
SOCIO-TECHNICAL SYSTEMS

ONLINE PLATFORMS MAINTAINED BY QT

Forum, Wikipedia, Blog
Showroom, Planet QT,
Mailing lists, IRC chat

PLATFORMS BY 3RD PARTIES

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RESEARCH QUESTION 2:

WHO FORM THE Qt'S HYBRID SOFTWARE DEVELOPMENT ECOSYSTEM?
SCOPE OF RESEARCH

Community driven development activities

• Understanding context from the perspective of community driven development platforms hosted by the Qt Company

• The Core Developers and (other) active collaborators for 5.0

• Three-month observation period (Jan-March 2015)
STAKEHOLDER TYPES

289 Human – 2 Non human

- Independent individuals
- Non-profits
- 140 Commercial organizations

*OBS! A CONSTRAINED SET!*
RESEARCH QUESTION 3:

IN WHICH ROLES DO THE STAKEHOLDERS ACT?
RESULTS

• Various (new) roles that people engage in the development activities

• Opportunity to quantify influence of a developer or a company

• Benefits for the Qt company?
Shares of stakeholders
Shares of stakeholders
CONCLUSIONS

• Context is always a versatile, multifaceted phenomenon.

• Its definition depends on the viewpoint and stakeholder interpreting it.

• To understand a context, switching in between high- and detailed views is necessary.

• For individuals, understanding the development context is essential for becoming empowered.

• When dealing with multiple sources of data, identifying individuals is key.
THANK YOU

tinyurl.com/QtContext

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