

The Anatomy of Sustainable Open Source Community Building

The Cultural Point of View

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Communities

NoTA (Network on Terminal Architecture) - a modular service-based architecture framework for embedded devices. First developed by Nokia and released as open source in 2008.

IT Mill Toolkit - an open-source framework, providing widgets and tools for the development of Rich Internet Applications (RIAs). Originally developed by the company IT Mill. Released as open source in late 2007.

Wringer - A User Interface scripting engine for embedded devices. Originally developed by Sesca Embedded Solutions. Will be released under a LGPL license in 2009.

The Community Typology

Size of the community. We assume that a larger community is always more efficient and sustainable but potentially increases problem complexity for company participation. The size of the community must also reach a certain minimum size in order to facilitate the open source effect.

Communication and decision-making structures. Different systems of governance exist in free/open source software communities, including democracy, meritocracy and dictatorship. Here we look at how centralized communication is. This tells something about the governance structure, hierarchy and bottlenecks.

License. The type of free/open source software license chosen by the community potentially affects who will participate in the community. We classify licenses based on how strong copyleft effect they have. GNU General Public License, for example, is a strong copyleft license, while Eclipse Public License gives more freedom, and licenses like the BSD license are not copyleft at all.

Community typology of the new communities

Size / Hybridity	<i>Volunteer</i>	<i>Mixed</i>	<i>Company</i>
<i>Small</i>			
<i>Medium</i>	Wringer		
<i>Large</i>		IT Mill Toolkit	NoTA

Decision-making / Hybridity	<i>Volunteer</i>	<i>Mixed</i>	<i>Company</i>
<i>Decentralized</i>			
<i>Balanced</i>			
<i>Centralized</i>	Wringer	IT Mil Toolkit	NoTA

License / Hybridity	<i>Volunteer</i>	<i>Mixed</i>	<i>Company</i>
<i>Non-copyleft</i>		IT Mill Toolkit	
<i>Weak copyleft</i>			
<i>Strong copyleft</i>	Wringer		NoTA

Differences between the three communities

1. Voluntary developers with centralized social structure and medium sized community. Intention to get more developers involved. Strong copyleft license. (Wringer)
2. Voluntary and salary-based developers (mixed) with “dictator” (IT Mill -company). Large community with many end-users. Intention to get profit and more contacts (customers) with companies. Non-copyleft license. (IT Mill Toolkit)
3. Company-driven ecosystem with centralized social structure. Intention to get communities to make applications on NoTA platform. Strong copyleft license. (NoTA)

Summary

Based on a typology developed earlier, we suggest that...

...the growth of the community (recruiting new volunteer developers) will be a bottleneck for the sustainability of the future **Wringer** community

...the **IT Mill Toolkit** community might face problems in decision-making

...in the case of **NoTA**, the challenge might be more on the side of companies, not so much individual developers