

Promoting the Penguin

Who is Advocating Open Source Software in Commercial Settings?

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OSS in firms – Open questions



- How is OSS adopted within firms?
- Who promotes it? Grassroots initiatives?
- What makes an employee disposed towards OSS?
 - personal characteristics
 - job function

→ *Zoom into adoption of OSS by corporations*

→ *Focus on software professionals*

→ *To analyze software professionals' attitudes towards corporate engagement in OSS*

- by job function:
 - architect, developer, tester, project manager, manager
 - comparing job groups (univariate analysis) vs. isolating job function (multivariate analysis)

- by level of OSS engagement:
 - *Using* OSS
 - *Contributing* to existing OSS projects
 - *Revealing* proprietary software under OSS license

- Purpose of the paper
- Theoretical framework
- Hypotheses
- Data and method
- Results
- Conclusion

- Davis' Technology Acceptance Model (TAM)
 - perceived usefulness
 - perceived ease of use

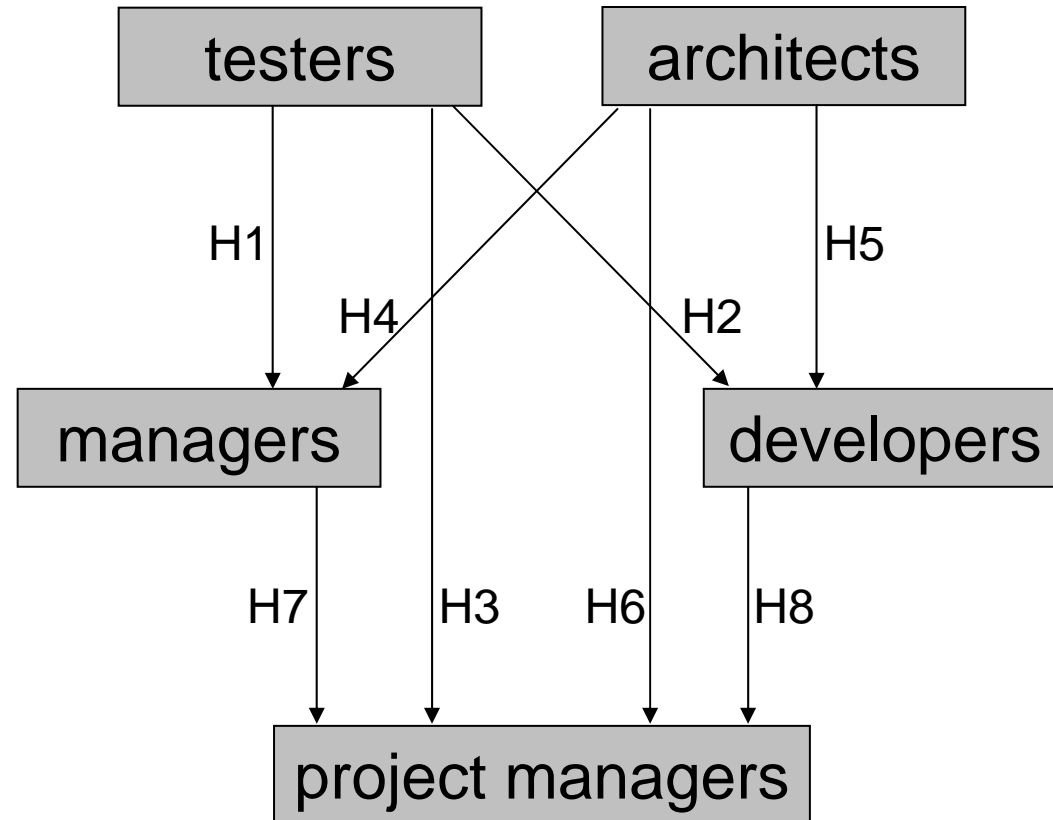
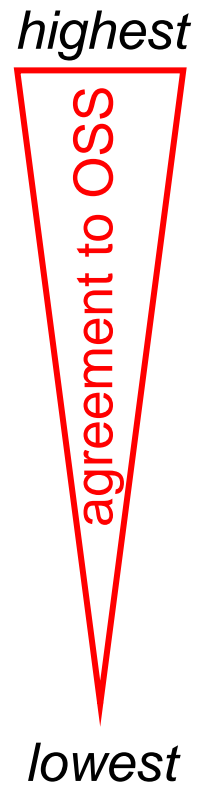
- Model of innovation diffusion by Rogers

Effects of OSS on work routine



	Architects	Developers	Testers	Project managers	Managers
perceived usefulness	expanded choice, easier browsing	increased efficiency	testing support from community proven OSS components	contributing code to OSS creates additional work	advantages beyond individual project
perceived ease of use	used to interaction with outside (customer requirements, third-party software)	NIH need to adapt to interaction with outside, to OSS development style, to coding for re-use	used to interaction with outside (beta testing)	additional uncertainty in project planning	some additional uncertainty in project planning

Hypotheses



Arrows read as, e.g.: *testers are more positive towards OSS than managers (H1)*

- Telecom department of a multinational electronics company, development section
- 25 semi-structured interviews
- Online-Survey, 249 usable replies

Dependent variables



Level of agreement (1 to 5) to the statement

“I think that [Corporation] could benefit from...

... using existing OSS more often”

... contributing to existing OSS projects”

... revealing proprietary software as OSS”

Levels:

1 = strongly disagree

2 = somewhat disagree

3 = neither agree nor disagree

4 = somewhat agree

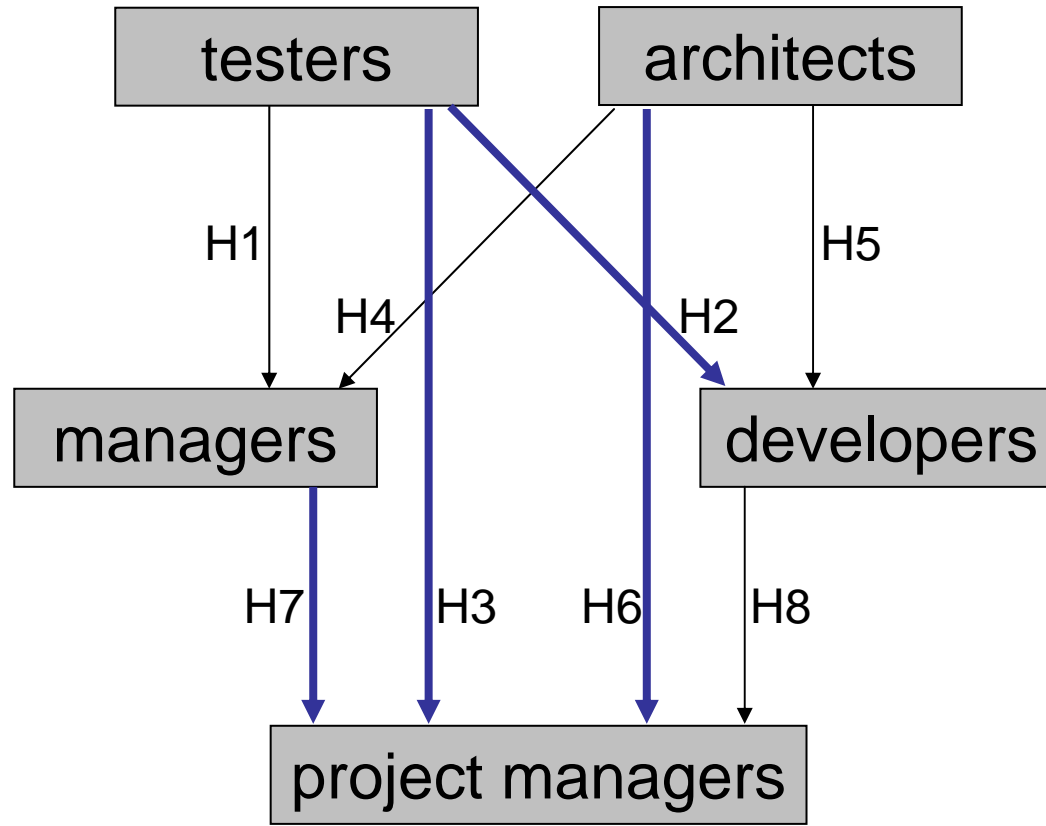
5 = strongly agree


Descriptive statistics



<i>I think that [Corporation] could benefit from...</i>	N	Median	Mean	S.D.	Min	Max	Share agreement (4 or 5)
<i>... using existing OSS more often</i>	249	4	4.25	0.85	1	5	85.1%
<i>... contributing to existing OSS projects</i>	249	4	3.90	0.98	1	5	69.9%
<i>... revealing proprietary software as OSS</i>	249	4	3.53	1.14	1	5	56.2%

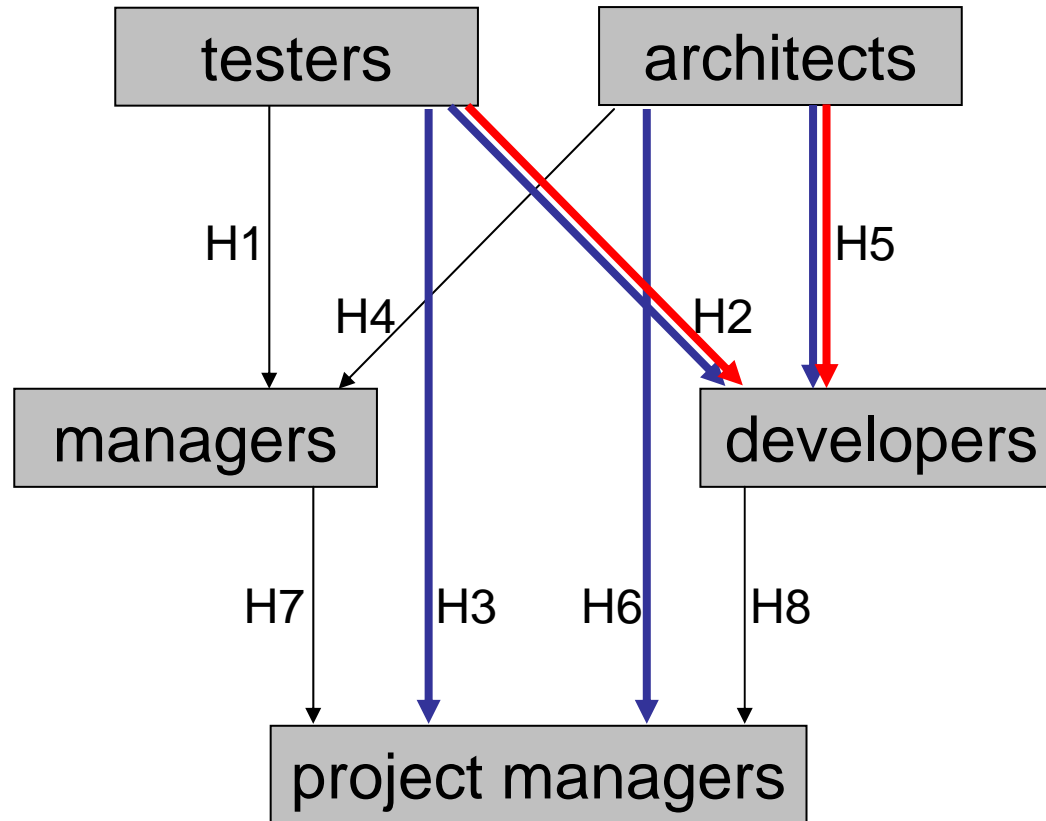
“Using OSS” – Differences in agreement




A  B univariate analysis (job groups): Median

A  B multivariate analysis (job functions): Coeff. in ordered probit regr.

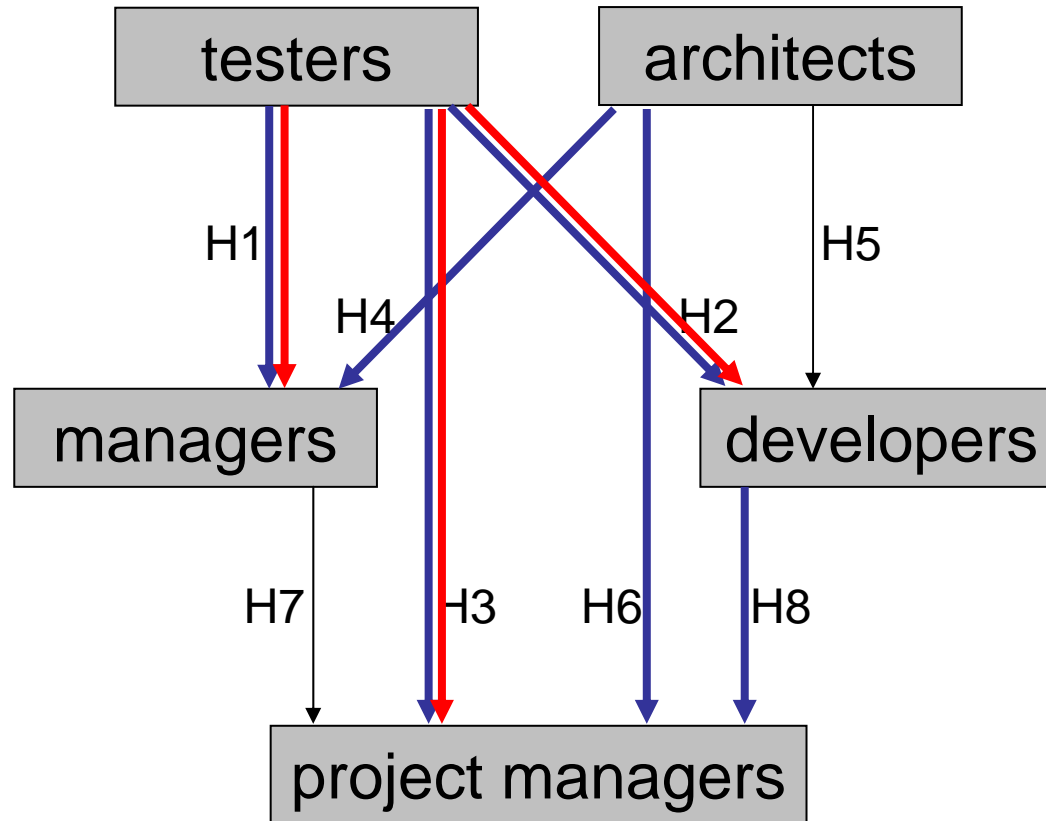
“Contributing to OSS” – Differences in agr.




A  B univariate analysis (job *groups*): Median

A  B multivariate analysis (job *functions*): Coeff. in ordered probit regr.

“Revealing own software as OSS”



A  B univariate analysis (job groups): Median

A  B multivariate analysis (job functions): Coeff. in ordered probit regr.

Summary



- Respondents on average “somewhat positive” towards increased corporate OSS engagement
- Agreement decreases with intensity of OSS engagement:
using OSS > contributing to OSS > revealing own software as OSS
- Agreement decreases between job groups:
testers, architects > managers, developers > project managers
- Developers’ agreement significantly lower than that of testers, architects in 7 out of 12 cases
 - Even though developers are, with architects, the group most experienced in OSS

- For corporations to embrace OSS successfully, all job functions must be supportive
 - Professionals should, if possible, self-select into OSS activities
- Waiting for OSS grassroots initiatives may take a while
- Need to consider how OSS affects each group's work routine
 - Developers and project managers are affected most, and are least positive about OSS

Thank you

Comments welcome



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