Developers Want Requirements, but Their Project Manager Doesn't; and A Possibly Transcendent Hawthorne Effect

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Initial Conditions, Cont'd

- **The project manager at O communicated PX's requirements as a one-sentence requirements specification: …**

  "Mimic this Webpage." while pointing to the Webpage implemented by PY.

An X Acquisition

X acquired another Canadian company, Y.

Y's main product is PY.

X acquired Y mainly to incorporate PY's functionality into its own products.

O Project to Build PX

O began a project to build PX in March 2008.

From now on, this project is called “the project”.

Project scheduled for 18 months; required 24.

Client was representative of first X customer that agreed to beta test new PX.

Staffing for the Project

Project started with team of 16.

But, 8 quit in first 9 months from job dissatisfaction, …

leaving 8, including the FA, at the time of the CS.

These 8 included 7 developers, including the FA, and 1 quality assurer.

The Non-Royal “We”

The FA was a member of the project that was studied.

Therefore, each of “we”, “us”, and “our” includes the FA, …

and does not include the second author.

Challenges in the Project

One significant challenge we faced when we started the project was our lack of knowledge of PY's domain.

PY's developers and other stakeholders, such as end users, were geographically separated from the PX project team.

When Y became part of X, all PY developers, who had domain knowledge about PY, quit rather than become X employees.

Initial Conditions

- **X's senior management communicated to PX developers in O that their job was to replicate the functionality of PY.**

  No more, no less functionality than PY had.

- **PY's functionality had to be migrated to a different technology, in order to incorporate the functionality into O's suite of SW.**

Initial Conditions, Cont'd

- **The project manager at O communicated PX's requirements as a one-sentence requirements specification: …**

  "Mimic this Webpage." while pointing to the Webpage implemented by PY.

Initial Conditions, Cont'd

- **PY's functionality was not defined or documented anywhere.**

  Information sufficient for a smooth development was not provided.

  Thus, the developers did not fully understand what was required to build PY.

Initial Conditions, Cont'd

- **The implementation of PX relied heavily on each developer's own interpretation, …**

  a serious problem since each developer's interpretation was different from those of the others.

The Project's Manager and RE

Based on the FA's experiences at O and informal discussions with his fellow O employees, the FA concluded that …

The project's manager did *not* like requirements!

The FA drew this conclusion from the manager's behavior.

Manager's Behavior

Manager seemed to resist any suggestion of the development team's figuring out requirements collectively.

Instead, he asked each *individual* to build a prototype of a different feature, interacting with only the client, and reporting back to only him with completed prototype.

Phony Agility

Agility in sense of continuous interaction with client, …

but not in sense of communication with entire team.

Manager's Behavior, Cont'd

The FA believes that the manager associated knowledge with power and job stability.

If the manager is the only one that knows something, he is indispensable.

A requirements specification gives this knowledge to everyone in the project team.

Thus, a requirements specification is very low priority to the manager.

Manager's Behavior, Cont'd

Ironically, the lack of a systematic, coordinated attempt to determine all requirements up front →

the manager probably knew no more about requirements than did the team collectively.

Lack of RE and Productivity

In the absence of well defined requirements, productivity was hampered.

The resulting rewriting wastes time.

Quality Assurance, Cont'd

By the end of June 2010, the QA team has logged 681 tickets.

Large number, even for O.

Origin of Tickets

For this CS, the FA tried to determine the origins of the 681 tickets.

After reviewing only the first 100 tickets, he gave up, confident of a representative sample.

37 of the 100 were from missing requirements, and … Since they knew the scope, the built PX exactly, these missing are D requirements!!
the remaining 63 were bugs introduced during programming of known requirements.