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Running to Stand Still: How Organizations Get Users to Willingly Participate in Maintenance Upgrades

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ABSTRACT

Maintenance upgrades are projects to replace an existing version of packaged software with a later version to facilitate maintenance. Encouraging willing user participation in such projects is challenging, since users receive little benefit. Through a case analysis of maintenance upgrades using the lens of communicative framing, we discover that a negatively valenced frame is best for encouraging willing user participation. Such a frame focuses on the need to upgrade to ensure organizational survival. Users are informed that their participation is important, not to improve benefits, but to ensure the organization can maintain existing business operations. This frame means the focus of a maintenance upgrade differs from traditional enterprise implementation projects in that both change management and project championship are less critical. In a maintenance upgrade, techniques for encouraging willing user participation focus on maintaining the status quo, not organizational change.

Keywords

Packaged software upgrade, strategies, IT implementation, framing

INTRODUCTION

One recent trend in Organizational Computing is the increasing adoption of packaged in-lieu of custom software to perform business operations. The maintenance processes associated with packaged software differ substantially from custom software. Notably, maintenance for packaged software is done via a software upgrade, where a company installs a new version of the same software, by the same vendor.

Software upgrading is a non-trivial activity that can take a year or more, and require up to 20-30 percent of the cost of the original software. It can also create organizational problems (Beatty and Williams, 2006). When the UK's Department of Work and Pensions performed a routine software upgrade, it caused 80 percent of its 100,000 PCs to be inoperable for a day (Rohde, 2004). Software upgrade projects can be expensive, high risk propositions.

Usually, upgrades are justified on increased business benefits (Ng, 2001). However, sometimes, the upgrade is conducted entirely for maintenance reasons. For example, software vendors establish 'sunset' dates beyond which they do not support earlier versions of packaged software. When these sunset dates arrive, adopting firms are forced to either upgrade, or maintain the packaged software themselves (Light, 2005). As organizations often do not have access to the packaged software source code, or lack the capability to understand it, upgrading is the only realistic choice available (Khoo and Robey, 2007). A maintenance upgrade is a software upgrade conducted for the express purpose of facilitating maintenance rather than operational tasks.

Maintenance upgrades are unusual on two grounds. First, they are typically not about improving productivity or cutting cost. That an organization chooses to upgrade only (for example) when software reaches its sunset implies the organization does not desire new features found in new versions of the software. Thus, in a maintenance upgrade, a company undertakes the risks of software upgrading even though the project provides few to no intended benefits for business users.

Second, user input is often irrelevant to the decision to perform a maintenance upgrade. Thus, the decision to upgrade is often made with little to no input from users.

Because (1) a maintenance upgrade is proposed by the maintenance department, typically IT, (2) it may not bring visible benefits to users, and (3) users may not have had significant input in decision making, it is unclear how business users can be encouraged to willingly accept and cooperate with a maintenance upgrade project. The objective of this study is *to understand how the IT department obtains willing user participation in a maintenance upgrade*.

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management and IS literature before (Bloomfield et al. 1992; Pawlowski et al. 2004), we identified a third necessary precondition (“unbiased relationship to stakeholders”) for turning around a failing course of action within a PPP.

The model we developed provides a substantial theoretical contribution to the area of boundary spanning in IT-PPP-megaprojects, especially in the area of enabling boundary spanning activities. The generalizability of our findings is restricted to the PPP domain. However, megaprojects also occur in the private sector and are equally prone to failure, as e.g., the Channel Tunnel project taught us (Flyvbjerg et al. 2005). Although our case study was conducted in a PPP environment, the Channel Tunnel example indicate that our findings can probably be applied to the realm of non-PPP IT projects (Nelson 2007).

Prior research so far has focused on spanning the boundaries within an organizational context (Leifer et al. 1978; Santos et al. 2005), the effects of the use of IT for boundary spanning (Levina et al. 2006, 2008), or on the managerial challenges concerning boundary spanning in the phase of establishing a PPP (Noble et al. 2006). In contrast, we focused on boundary spanning activities and their antecedents that lead to trust formation during the realization of IT-PPP-megaprojects. Besides this theoretical contribution, we also offer practical advice. The challenge for practitioners in an IT-PPP-megaproject is to establish and maintain mutual trust as well as shielding an established relationship from external influences. In prior literature, spanning the boundaries between different cultural and organizational fields has been referred as the necessary precondition for successfully managing IT projects (Levina et al. 2005). Our analysis shows how important boundary spanning activities are for the establishment of mutual understanding and the successful management of expectations for succeeding in IT-PPP-megaprojects. Taking the aforementioned into account, an initial failing course of action, expectations’ violation, and termination of contracts in IT-PPP-megaprojects could be avoided by constant relationship management. Future research may investigate which governance structures IT megaprojects should have to succeed in implementing IT solutions in cooperation with public authorities.

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