ECHO
An Evolutive Vocabulary for Collaborative BPM Discussions

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\textbf{Abstract.} Nowadays, Business Process Management (BPM) is considering new approaches that use collaborative environments to involve all types of business process stakeholders in the improvement of the organization’s business functions. Nevertheless, when evolving different types of stakeholders, the language gap existing between them is disregarded. Also, these new approaches are only focusing on the top-down strategy since they only allow for such collaboration to occur at business process modeling environments. In this paper, we propose ECHO as an evolutive vocabulary system that focus on the formalization of informal entities supporting both strategies of top-down and bottom-up. ECHO’s main objective is to support the evolutive process of formalization of the new business process entities that emerge within the stakeholders’ discussions. The main function of those informal entities called concepts is to provide a common language that acts as a “bridge” over the gap existing between the business process stakeholder’s individual languages.

\textbf{Keywords:} Business Process Management, Social Software, Tagging, Vocabulary, Discussions, Bottom-Up, Collaboration, Formalization.

\section{Introduction}

Business processes are known to involve different people, from different organizational units, with different responsibilities and distinct concerns, to collaboratively execute the organization’s business functions. Although, the design process of such business functions usually disregards the empiric knowledge owned by those who really operate the business on a daily basis: the business process users. Hence, to achieve a proper management of business processes, we must acknowledge their cross-cutting concern nature: most of the business process concerns cannot be cleanly decomposed into different organizational roles. Business process users own important know-how that business process modelers fail to acquire and manage during the interviews within business process discovery.
or documentation efforts. Similarly, business process users also fail to create and understand models using formal notations that help describing and managing the complexity behind a sound business process orchestration and automation.

Aware of such problematic, new emergent BPM tools are focusing on the involvement of all business process stakeholders. Generally speaking, new collaborative BPM environments such as SAP’s Gravity [3], Lombardi’s BluePrint [2] and the most recent ArisAlign [1], focus on the management of business processes at the modeling level by providing means to collaboratively involve all different types of business process stakeholders: users, modelers, architects, analysts, developers, managers, or any other type of business process stakeholder. This involvement of all business process stakeholders is also due to the acknowledgment of the benefits of adopting philosophies such as crowd-sourcing, also known as the Wisdom of the Crowds [13], which made the Wikipedia project so successful as we know it today.

In order to provide a realistic example of the benefits of involving all business process stakeholders, we will study the BPM collaboration on emergent changes within a patient’s management business process. Normally, when a patient arrives at the hospital reception desk, the receptionist opens a new medical record where his symptoms are registered for triage. After the triage is done, the patient’s medical record gets updated and the treatment process begins accordingly to the information captured during the triage. However, about a year ago, a new strain of influenza, the H1N1, has contributed to some emergent changes within that patient management business process. Whenever a patient arrived at a hospital, specific procedures needed to be taken instead of following the standard procedure described before. The first action to be done was to ask the patient if he was feeling any H1N1 influenza symptoms lately. Depending on the answer, the patient would either follow the normal patient management process, or would be given a surgical mask, registered as an influenza patient and forwarded to isolation instead of the common shared waiting room. All these changes in the execution flow of the patient management process emerged from the medical staff and not from business process experts or analysts, reflecting the benefits of involving the business process users directly in the organization’s BPM efforts.

Let us now consider that this patient management process was fully supported by a Business Process Management System. If the medical staff was enabled to contribute to the management of that business process, it could create a discussion to explain to the business experts, architects and developers these emergent changes so that they could be properly and formally implemented in the workflow system. Nevertheless, some problems exist within those collaborative BPM discussion environments.

This paper proposes a solution to tackle the problems that emerge within collaborative BPM discussions between the business process stakeholders. Before we propose that solution, we will identify three main problems that emerge from such collaborative BPM discussions. Only after these problems are properly depicted and explained, we will propose a solution that focus on their mitigation: an evolutive vocabulary system. Further, we will present some work related with