Social Networking Influence on Case Management in Enterprise Business

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Abstract:
The paper sets out from a central proposition that the concept of social adaptive case management (SACM) bears on the evolution of modern businesses in enterprise. Social ACM makes the business case and the active components (information, processes, knowledge, etc.) become active social network elements and connecting knowledge workers. It allows the social network, flexible dialogue and cooperation in the adaptation of knowledge workers and processing complex business cases. It also offers a mechanism to capture and formalize opinion (feedback), the interaction in the social network. This type of information can be converted directly into resource assets (artifact) or affect the optimization of processes definition. SACM uses techniques and tools for development and improvement of business processes and case management solutions. This paper shows the ways that current social technologies and existing social networks can be exploited by business applications.

ACM social environment can be described as networking, which results in the processing a business cases. It can extend ACM access and decision-making to select external partners without compromising the exclusivity of the core group.

The paper discusses how both social networks and social tools such as tagging, communities, ratings, and more can be applied to a business application to improve outcomes and engagement.

Keywords: Adaptive Case Management, Social Networking, Knowledge Workers, Information Communities, Business Processes, Ranking, Tagging.

Introduction.
What has long been demanded of information systems is that they move away from the prevalent control flow perspective, commonly adopted in the BPM area, toward the data perspective [1]. Attempts to meet these expectations have led to the emergence of a new class of information systems built around the approach known as adaptive case management.
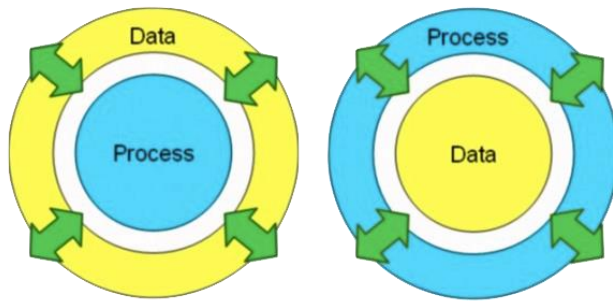
Figure 1. The classical BPM approach vs. modern ACM.
Source: www.adaptivecasemanagement.org

The term "case" represents a generalization of any activity by so called "knowledge workers", whose efficiency Peter Drucker sees as a principal challenge of the 21st century [2].

Unlike in classical BPM, under adaptive case management processes are of dynamic character, since they are not defined until at runtime. To master the unpredictability of processes and hence facilitate process management in contexts where processes are mostly complex and where relevant decisions are affected by a large number of factors, more and more organizations choose to switch to adaptive process management systems [3].

ACM allows perfect visibility and full control of each specific case, whether it is handled by a predefined or an ad hoc process, or by a combination of the two.

Figure 2. A typical ACM implementation environment.
Source: www.ibm.com

In a dynamic process management environment, operators/managers, i.e. knowledge workers, can be creative and innovative in performing their work, in that way contributing to organizational knowledge management and creation.

To distinguish the role of process operator from that of temporary process participant, under ACM the former has been redefined and termed as the knowledge worker. Prof. Van der Aalst uses the "blind surgeon" metaphor to illustrate the differences between the two [4]. Under the

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traditional approach to processes, a participant has a partial view of the whole process, usually limited to the step in the process at which the participant is supposed to make a business decision.

The knowledge worker, on the contrary, has a complete insight into information on the case or process. Knowledge workers constitute a new category of specialized staff whose job is, in the first place, to utilize and exchange knowledge in a productive manner. They are responsible for the generation and implementation of new ideas that enable organizations to align their strategies with the increasingly rapid changes taking place in the business environment; they do so, primarily, through searching, exchanging, combining and utilizing knowledge inside as well as outside the organization [5].

An enterprise that is run in compliance with the ACM concept will be able to seamlessly combine its core activities with an ability to generate and verify innovations daily [6]. Allowing operators to dynamically modify their processes (and business rules, too), the enterprise management system as a whole opens up to creative initiatives from staff at large, while at the same time preventing chaos that could arise as an outcome of unharnessed changes made to the operating properties. In addition, since it possible to examine the outcomes of changes as they emerge, information on which practices and solutions produce the best results and which yield the worst can be appended to organizational collective knowledge. This stands for actual day-to-day improvement and adaptation of business processes, relying on the best knowledge of a large portion of personnel and getting validated through feedback from customers.

Social aspects and trends of ACM

Social technologies are the enablers that could be divided into four categories:

- Social creation via collaborative projects (wikis, Google Docs)
- Social networking via "social profile management" (Facebook, LinkedIn)
- Social publishing—content sharing and aggregation on, for instance, Flickr and YouTube
- Social feedback—ratings, rankings and commentary, such as customer product reviews on Amazon.com.

The recent rise of social media and the wide availability of digital communication channels have also changed the traditional ways of knowledge workers. These types of technology promote and facilitate the flow of information - especially between knowledge workers and experts.

Effective teams bring together people with three kinds of expertise:
- The "think" component of the organization focuses on uncovering relevant patterns of customer behaviors, sentiments and buying preferences from a vast repository of internal and external sources of data.

- The "feel" component consists of social media subject matter experts, digital content creators, and customer engagement specialists, who continually maintain communications to facilitate the buying journey.
- The "do" aspect of the organization focuses on IT, systems and application infrastructure that empower organizations to engage with customers—to on board them faster, minimize labor-intensive and error-prone business processes, improve customer service levels and anticipate buying sentiments based on real-time predictive analytics. [7]

Adaptive Case Management is designed to facilitate the implementation of dynamic and flexible process with the involvement of the customer and combine these three types of knowledge. This approach may prove to be a breakthrough, when business owners immediately begin to use social networking mechanisms to work with business cases - eg. By creating the definition of immediate solutions, ACM and share them with colleagues.

SACM helps companies empower their people through effective collaboration, engage with experts and clients, and cultivate trust using people-centric experiences. It also opportunity for ad-hoc idea and file sharing. Additionally SACM can involve team places where groups share content and ideas through files, wikis, blogs, calendars, discussion forums, etc.

Social software could enhance the business work environment. SACM could fit processing cases into a social environment. In the literature we can the definitione of process that assigns tasks based on users connections, instead of globally administered roles. This is called Enterprise 2.0, or Social Case Management — that is use of social software directly in the managing of business cases.

It is imperative for organization"s to preserve and extend their investments in business systems and applications. As the AIIM study noted: "content variety is a key aspect of case management…particularly social media can be a particular concern not just in communicating with a younger customers but also in disasters and insurance claims incidents where customers may be disconnected"

The AIIM study concludes that "At the end of the day it is not what the system is called but whether it offers the functionality required to support case management"[8].

When the shape of business processes cannot be predicted, or decision complexity is too large social networking tools can help in the implementation of such a business case. As an example, we can use the research of Gartner presenting the example of company Cemex - the Mexican giant concrete manufacturer.

"They had a mandate to implement green technologies and alternatives fuels. By using a social process, they were able to identify and engage outliers who had already begun to pioneer these steps and were able to then help foster change in the wider organization."

In the process of knowledge discovery and business development, some technologies - eg. wiki - serve to improve communication between employees, customers and external partners. While others are looking to find a social to change the way their processes engage with customers at runtime others are looking to do social mining to transform the way their processes works.

The combination of social tools and social networks with BPM tools within the context of case management, can improve the way business applications handle work. It can improve not just the efficiency of current processing methods, but can also help to expose and quickly distribute new information, from emergent trends to best practices. Business applications become not just a platform to perform work, but a platform for innovation.

Thinking about social systems improving ACM application development is like thinking of using social software to to make the writing of newspapers more collaborative, or making the writing of books more collaborative. Such approach might unleash the real power of social software.
Social systems make former patterns collaborative. For example, blogs don't just make the writing of newspapers more collaborative, they completely change the nature of how information is spread. A wiki is not about getting people to collaboratively write books that are published in the traditional manner, but it is about eliminating the divide between the author and the reader.

The more feedback - the better business outcome.

SACM allows bringing more voices into the conversation case processing. Collaborative case management is typically involving a small group of people. Members of these groups tend to be those actually managing the processes—often also known as knowledge workers or subject-matter experts. In such arrangements using collaborative tools that let KWs do collaborative discovery so they can project things on a whiteboard and people can do modeling and provide feedback.

Social ACM in Richardson's view, occurs when you bring in *all* the voices. It's about the network. It's about being able to open up a dialog so everyone in the organization can see everything and provide feedback. "It makes the assumption that the knowledge and innovation is in the business and that you want to get everyone engaged," [cytat]. And because of the tools, everyone can be engaged. Even people who might miss specific meetings can see what's being changed or suggested and post comments in the style of a Facebook feed.
Participation in a case processing is "social" in nature. The knowledge workers are members of a team who often want to discuss and collaborate with each other and want to know what other participants are thinking. In many case they want the ability to use the thoughts and feedback of others to change and improve their own actions in a process. Knowledge workers who participate in processes are not automatons working on a factory floor. Instead they are humans with the need to learn and to satisfy emotional needs.

It is for this reason that we find more and more social networking type capabilities in ACM and BPM offerings of different vendors. This includes the integration of instant messaging, Wikis, discussion forums, and collaboration.. These ad hoc collaborative capabilities are added on top of a structured solution to leverage some of the benefits[3].

Benefits and challenges of social Case Management.

Social CM is a process of active involvement of all stakeholders (employees' knowledge and external partners, sometimes customers) in the processing of business cases. Using collective intelligence and participation in joint (thanks to social networking tools) production are the key benefits from the transfer of managing traditional cases or business processes to the environment with social networking case management. However, few acknowledge that in comparison with traditional business process, social ACM impacts and involves a complex organizational and performative actors and behaviors ecosystem. Social ACM engages a larger and more heterogeneous set of actors and aims to achieve a higher quantity, quality, variety, and timeliness of contributions[9].

- Business Processes developed and improved through the use of social technologies and techniques. Using social software to help with the development of applications for case processing means that the knowledge workers/developers are the ones using the social media to make them more effective. It is the developers who are socializing.
- Collaboratively designed and iterated case processesing. Using social software for case processing lifecycle makes sense because it will allow other people (managers, customers, executives) have input to the process design.

For example, The 3rd Workshop on Business Process Management and Social Software [10] talks about: "Social software is a new paradigm… Therefore, more and more enterprises regard social software as a means for further improvement of their business processes and business models. For example, they integrate their customers into product development by using blogs to capture ideas for new products and features. Thus, business processes have to be adapted to new communication patterns between customers and the enterprise: for example, the communication with the customer is increasingly a bi-directional communication with the customer and among the customers. Social software also offers new possibilities to enhance business processes by improving the exchange of knowledge and information, to speed up decisions, etc. Social software is based on four principles: weak ties, social production, egalitarianism and mutual service provisioning."

As the above quotation indcates that business owners use the social software by themselves, to actually conduct business, and how the business place is transformed by the use of social software.

Proper use of social software will be about individuals producing, publishing and running their own case management applications. Not collaboration on the design phase, but designing individually, and collaborating with a completed solution.

Social ACM in practice.

Knowledge Worker begins work on new case. When in the decission proces KW didn't have enough information to proceed he can:

- Make use of the knowledge in the form of external socjaln network tools (eg. Internet forum of law/legal discussion)
- Use instant messaging to chat with internal SME and as a result add the conversation history as a case evidence (artefact)
- Search an internal document repository based on folskonomy and popular social tagging / relevant documents
- After completing the following steps he may share comments, or leave information for other KW working on similar case.
- By the experience and adaptation he can add own elements to the process (solution templates, views, proces definitions) instance to optimize case processing.
- He can also use content analytics to analyze the source of information like social networks (tweets, facebook etc) and support the decision-making proces.

This is typical of the mechanisms for social media and collaboration. But looking at the nature of the ACM can safely say that, comparing to the traditional BPM tool – ACM is much more open and acurate for social and collaboration by definition.

For example, after having several similar cases, KW in back office recognizes that some checks for the software appear regularly, so it would be best to include them in a template. Based on the previous cases he is reasoning the processing of next cases could be optimized.
KW thinks that if he can make the template available to other colleagues, he might ask them once in a while to perform the checks for him so that he saves some time. Therefore, he searches for the case that contains the checks he has in mind, copies the part that he wants into a new template, and edits the template with instructions so that other KWs will be able to follow them. KW shares his knowledge by publishing that template in the community library's section for their group. Other KWs can now access the template. If there will be similar case, then KWs can copy the template into his case. In this example we can see all of the CBR phases. In effect, first KW has saved some time, while still giving guidance and instruction and sharing expert knowledge to the rest of the team by creating case patterns/templates.
Users of templates can rate them, tag them, and make suggestions for improvements. A template can be promoted to a policy to gain more visibility to KM. CBR process assures that template is only promoted to a policy after it has been reviewed and accepted by the relevant participants and parties. The same can happen with the discontinuation of templates/policies. As a result, only practically proven cases become templates. The set of templates is constantly

improving: new templates are created as needed and obsolete templates are discontinued. This points that CBR adaptation is a constant cycle. As an effect, the template library's content can adapt to new processes and new business situations as the need arises. This can be done by the automation of the case processing solution by combining ACM features with CBR idea.

Conclussion

Adaptive management initiatives are frequently used in multi-stakeholder situations. The more immediate barriers to success in these cases are proving to be organizational and social.

Business applications can drive superior outcomes by taking a work-focused approach that brings to bear whatever technologies are needed to facilitate the work, rather than a technology-focused approach. That is why SACM should be highlighted as a promising business platform of new generation case management. Adaptive Case Management, because of its more work-focused mandate provides a way to incorporate social tools into a business application.

SACM can improve not just the efficiency of current processing methods, but can also help to expose and quickly distribute new information, from emergent trends to best practices. This powerful combination can empower workers and help organizations substantially increase worker productivity. It does this not by turning them into cogs within a machine, but rather by giving them as many opportunities as possible to use their accumulated skills and knowledge, even in areas that might normally be outside of their job scope.

At the same time, organizations can increase worker satisfaction, elevating the level of engagement, increasing their sense of contribution and increasing awareness of those contributions.

Collaborative adaptive approaches should be flexible, and designed to grow. Community involvement helps create ownership and a feeling of accomplishment in working together to solve a problem.

This approach offers a path to changing the way applications are developed and managed. It offers the possibility of moving towards a type of application development that is user-generated and just-in-time with applications evolving with the needs of the business in real time, rather than only at design time.

An enterprise managed according to the ACM concept inextricably combines day-to-day ability to create and validate innovations on a wide basis with its core business, thus mitigating the risks and challenges associated with business process optimization. By allowing process operators to change their processes dynamically, the entire enterprise management system becomes open to creative initiatives from a broad community of workers. At the same time, there is no risk of chaos that would result from uncontrolled changes to operational principles. Additionally, with the ability to trace the effect of changes, it is possible to enhance the organization's collective knowledge base by adding information as to which practices and solutions deliver the best and the worst results. This means real, day-to-day business process

improvement and adaptation on the basis of knowledge possessed by a broad community of workers and validated by the customer.

One of the core assumptions for ACM is the belief that the organization being managed should constantly expand and process its existing knowledge of the mechanisms present in the business environment ['mastering'] in which it operates, and that this management model is not simply more effective: it is necessary in order to respond to the staggering pace at which today's markets and their expectations evolve. It is often said that the goal of ACM is to establish a learning organization. Improvements to a company's internal processes are made in several dimensions, and this applies to both managers and employees.

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