INT-SM4KS - MÍDIAS SOCIAIS INTEGRADAS PARA COMPARTILHAMENTO DE CONHECIMENTO EM PROJETOS DE TI

FRAMEWORK INT-SM4KS: MÍDIAS SOCIAIS INTEGRADAS PARA COMPARTILHAMENTO DE CONHECIMENTO

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Objetivo do estudo
Este estudo investiga o uso de ferramentas de mídia social integradas para apoiar os processos de compartilhamento de conhecimento em projetos de tecnologia da informação (TI). Seu principal objetivo é o desenvolvimento de um framework, INT-SM4KS, para auxiliar gerentes de projeto.

Relevância/originalidade
Compartilhamento é o processo mais significativo da gestão do conhecimento e o sucesso do projeto requer requer que ele aconteça em todas as etapas A combinação de TI com processos de negócios é facilitador e tecnologias de mídias sociais constituem elemento valioso

Metodologia/abordagem
A Teoria dos Affordances foi a lente teórica adotada. Design Science Research (DSR) foi adotado como método prescritivo. O desenvolvimento do framework baseou-se em uma revisão abrangente da literatura e entrevistas com participantes de projetos de TI para avaliação e refinamento.

Principais resultados
O framework resultante compreende três componentes, baseados na percepção, atualização e efeito de affordances. É apresentado em duas visões complementares: componente e integrativa, sendo potencialmente relevante para contribuir na solução de problemas identificados na literatura e na prática.

Contribuições teóricas/metodológicas
O trabalho acrescenta ao corpo de conhecimento e fornece uma ferramenta de apoio projetada e validada especificamente para profissionais e pesquisadores.

Contribuições sociais/para a gestão
A TI tornou-se ativo essencial nas organizações e o conhecimento contribui para vantagem competitiva A aplicação bem-sucedida do framework em projetos de TI pode promover os benefícios da Gestão do Conhecimento, potencialmente aumentando a eficácia da gestão e influenciando positivamente nos resultados

Palavras-chave: Gerenciamento de projetos, Compartilhamento de conhecimento, Projetos de tecnologia da informação, Mídias sociais, Recursos

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Study purpose

This study investigates the use of integrated social media tools to support knowledge-sharing processes in information technology (IT) projects. Its main objective is the development of a framework, the INT-SM4KS, to assist project managers.

Relevance / originality

Knowledge sharing is the most significant process of knowledge management and in project management domain, success requires sharing knowledge at all stages. Matching IT with business processes is a knowledge sharing facilitator and social media technologies emerged as a valuable element.

Methodology / approach

The Affordance Theory was the theoretical lens adopted; The Design Science Research (DSR) was adopted as a prescriptive method. The framework development was based on a comprehensive literature review and interviews with IT project participants helped to assess and refine it.

Main results

The resulting framework comprises three components, based on affordance perception, actualization and effect. It is presented in two complementary views: component and Integrative and is potentially relevant to contribute to solving problems identified in literature and in practice.

Theoretical / methodological contributions

The work adds to the body of knowledge and provides a support tool designed and validated specifically for practitioners and researchers.

Social / management contributions

IT has increasingly become an essential asset in organizations and resources such as knowledge contribute to competitive advantage.The successful application of the framework in IT projects can promote the benefits of KS, potentially increasing management effectiveness and positively influencing outcomes.

Keywords: Project management, Knowledge sharing, Information technology projects, Social media, Affordances

INT-SM4KS - INTEGRATED SOCIAL MEDIA FOR KNOWLEDGE SHARING IN IT PROJECTS

1 – INTRODUCTION

1.1 - CONTEXTUALIZATION

Information technology (IT) has increasingly become a powerful conductor of business strategies and an essential asset in the organization's competitive game plan (Koriat & Gelbard, 2019; Rai, 2016). Transformational forces like social media (SM), mobility, cloud computing, internet of things (IoT), artificial intelligence (AI), and others are influencing businesses' reshaping (Marnewick & Marnewick, 2019; Rai, 2016; Zin et al., 2018). Such circumstances have brought about a special interest in improving IT projects, making their management a current key concern (Gholami & Murugesan, 2011; Koriat & Gelbard, 2019; Rai, 2016).

In this organizational scenario, intangible resources such as knowledge contribute to the organization's competitive advantage and directly affect its achievements (Koriat & Gelbard, 2019; Marnewick & Marnewick, 2019). Knowledge is considered critical for organizations that increasingly realize its role as a factor of production and understand the challenges to its acquisition and dissemination (Lindner & Wald, 2011; Krumova & Milanezi, 2015; Ersoy & Mahdy, 2015; Yuan et al., 2013). In this regard, knowledge sharing (KS) is the most significant process of knowledge management (KM), as it forms the foundation of most initiatives (Anwar et al., 2019; Krumova & Milanezi, 2015).

"Knowledge sharing occurs when individuals convey knowledge or acquire it from others" (Ahmed et al., 2019, p. 74). Particularly in the project management domain, success requires the sharing of knowledge at all project stages, as well as active collaboration to establish a mutual understanding among participants by coordinating and integrating multiple knowledge sources, which adds to the complexity (Nidhra et al., 2013). As a result, the ability to share technical, organizational, and professional knowledge among project members and across project teams has emerged as a critical concern in IT projects (Karlsen & Gottschalk, 2004).

Panahi et al., (2012) consider that information technology is a major enabler of knowledge sharing activities and processes. In this context, it is worth highlighting that IT project teams are growing more decentralized (Zin et al., 2018), and more flexible teamwork has been demanded as organizations have become more project oriented (Lansmann et al., 2019). Any issue relating to the project management process is intensified, and only technology makes knowledge sharing possible (Wells & Kloppenborg, 2019).

In this context, the use of social media technologies presently pervades organizational settings, so much so that its benefits and challenges in project mnagement domain can no longer be ignored (Ahmed et al., 2019; Sarka & Ipsen, 2017). Social media emerges as a valuable platform to support IT projects, facilitating knowledge creation and sharing, networking, collaboration, and communication (Ahmed et al., 2019; Kanagarajoo et al., 2019; Koriat & Gelbard, 2019; Yuan et al., 2013). Social media applications like wikis, instant messengers, and videoconference tools assist effective knowledge sharing among IT workers and IT work teams (Koriat & Gelbard, 2019; Nabelsi et al., 2017; Sarka & Ipsen, 2017; Zahedi et al., 2016).

1.2 - PROBLEM SITUATION

Existing research shows that data integration from multiple social media tools contributes to the resolution of various types of problems regarding knowledge sharing

(Ikemoto et al., 2017; Stray et al., 2019; Veronese & Chaves, 2016). Nevertheless, the lack of integration among IT-based tools has long been seen as a challenge, forcing a lot of work to be done and hindering the way people do things (Niazi et al., 2015; Pirkkalainen & Pawlowski, 2014; Riege, 2005; Santos et al., 2012). In this context, ensuring social media tools' efficient and meaningful integration is an essential managerial task (Forsgren & Byström, 2018), notably in virtual project teams (Manzoor, 2016). This scene was amplified after the increase of remote working caused by the outbreak of COVID-19 (Kinder, 2020).

On the other hand, theoretical and practical studies have identified some barriers to social media adoption and use, such as selecting or replacing tools and technologies in a context of rapid technological obsolescence (Babenko et al., 2019; Ranjbarfard et al., 2014; Vergara et al., 2020); developing or improving knowledge sharing processes (Asrar-ul-Haq & Anwar, 2016; Zahedi et al., 2016); creating guidelines for tool use (Eriksson & Chatzipanagiotou, 2021); planning and developing training (Stray et al., 2019); or designing a structure to enable storing and retrieving knowledge (Dingsoyr & Smite, 2014; Kukko, 2013; Zahedi & Babar, 2014).

In consequence, scholars have been looking into the efficient usage of integrated SM tools in project management and knowledge management. Popescu (2014) highlighted the importance of unique platforms that would integrate a wide range of social media components to facilitate management by avoiding monitoring several dispersed tools; Ikemoto et al. (2017) postulated that social media technologies need to be integrated via a single interface to reach their full potential; Narazaki et al. (2020) advocated that social media tools should be integrated into a unique set being used, not become more tools to be managed.

1.3 - IMPROVEMENT OPPORTUNITY

In such a vein, recent solutions have been addressing this technological gap and responding to academic claims with the introduction of a class of collaborative tools referred to here as "integrated social media platforms." These current solutions are concerned with a unified user interface and a unique set of social media features. They include such products as Microsoft Teams, Slack, and Jira Software (Eriksson & Chatzipanagiotou, 2021; Mittal & Mehta, 2020; Stray et al., 2019). Additionally, the use of plugins and other components that connect to the integrated environment via Application Programming Interfaces (APIs) allows for the addition of other tools and applications (Silva & Chaves, 2021).

Despite the use of integrated platforms, however, within project teams it remains difficult to know how to best interact with other team members in order to share knowledge and benefit everyone (Eriksson & Chatzipanagiotou, 2021; Stray et al., 2019). Surprisingly, in the age of integrated social media cloud-based platforms, the selection and use of appropriate tools to support project management processes such as knowledge sharing is still an issue in virtual work environments (Nidhra et al., 2013; Ikemoto et al., 2020; Rozman, 2019). In this regard, a comprehensive assessment of the tools to be used and how to use them is required to meet the project's needs based on its characteristics (Ikemoto et al., 2020).

As a consequence, taking into consideration this scenario where academic literature and practitioners' experience coexist, a problem was stated as "IT project managers lack an artifact to guide them on the integration of social media tools to support knowledge sharing in their projects, particularly in virtual teams". In this regard, a technological product was developed to help bridge this practical and theoretical gap.

2 - THE TECHNOLOGICAL PRODUCT

The technological product proposed and developed was a framework for the integration of interactions mediated by social media technologies to support knowledge sharing in IT projects. It was denominated Integrated Social Media for Knowledge Sharing (INT-SM4KS). In this light the definition of a framework is considered as "a network of interconnected concepts that together provide a comprehensive understanding of a phenomenon or phenomena" (Jabareen, 2009, p. 51), and the use of a framework as a "real or conceptual guideline to serve as support or guide" (Vaishnavi et al., 2019, p. 16).

The development approach took people, processes, and technology into account to handle human interactions in knowledge sharing processes mediated by integrated social media features. The framework was designed, developed, and evaluated using a five-step process model proposed by Vaishnavi et al. (2019). It is expected that the analysis and use of the knowledge supplied by the framework would aid project managers in overcoming problems identified in the literature and in practice concerning the use of integrated social media in IT projects, such as selecting or replacing tools and technologies in a context of rapid technological obsolescence; developing or improving knowledge sharing processes; planning and developing training; and developing guidelines for tool use.

In terms of the theoretical approach, it is worth highlighting the socio-technical dimension of the construction of the framework, which is reflected in the choice of affordances as the theoretical lens. Affordances can be defined as relationships between the properties of an object and the capabilities of the individual that determine how it can be used (Norman, 1988). In this conception, the different features of the object exist independent of the users, but the affordances do not, for they are unique meanings related to the particular way in which each actor perceives and uses the object (Leonardi & Vaast, 2017; Treem & Leonardi, 2013).

Using the affordances concept to explore the relationship between technology and organizational change can improve the design of technological artifacts and the users' engagement with the activities they mediate (Treem & Leonardi, 2013). Corroborating, Waizenegger et al. (2020) assert that virtual team performance can be enhanced if processes are adapted for the affordances offered by the technology. Moreover, in the context of constant changes in IT project environments, the use of the affordance perspective is much more likely to have staying power (Treem & Leonardi, 2013).

2.1 - DEVELOPMENT OF THE FRAMEWORK

The artifact was built from three studies, which comprised a professional doctoral thesis. The first one aimed to identify existing problems in the IT project domain to whose solution the use of social media to share knowledge can contribute. A systematic literature review (SLR) was carried out to increase understanding and direct future research efforts, by investigating the academic literature on the research subject between 2010 and 2019 to uncover emerging gaps related to knowledge sharing in virtual and hybrid project teams as well as on the use of integrated social media tools. The overview of the subject addressed the most used tools; tasks and processes supported; stakeholders involved; and tools' contribution to knowledge sharing practices. Additionally, literature gaps and research opportunities were identified referred to the lack of studies on the public sector; on the use of social media for knowledge sharing in project management practices and methodologies; and on the use of new technologies such as mobile, artificial intelligence, cloud computing, and Internet of Things.

Based on the research agenda outlined in the previous study, the objective of the second study was the identification of difficulties in knowledge sharing within different IT project

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workplaces where using collaborative social media tools can make a significant contribution. In order to gain a more in-depth and empirically grounded understanding of the problems in in project workplaces, semi-structured interviews were conducted with fifteen senior IT project managers from various business sectors. In this regard, a number of problems were uncovered, as well as the fact that most interviewees mentioned the usage of social media integrated tools, particularly in distributed teams, and emphasized the importance of usability and accessibility.

Social media tool usage reported by the interviewees concentrated on just a few tools: wikis, instant messengers, videoconferencing, shared repositories, and issue trackers. In addition, it was also reported that the intense use of traditional tools such as emails and file system directories for storing and sharing knowledge. The study provided a better understanding of collaborative tool use to support knowledge sharing and uncovered organizational, individual, and technological knowledge sharing barriers in the specific context of IT projects. Four subclasses were identified and described in the class of "problems of knowledge sharing in IT projects": i) familiarity and suitability of knowledge sharing tools; ii) acquisition, infrastructure, and maintenance of knowledge sharing tools; iii) limitations on the use of knowledge sharing tools; and iv) knowledge management.

In the third study, it was developed and evaluated a framework that could contribute to the solution of the research problem to be addressed, identified in the first two studies: the need for guidance on the integration of social media technologies to support IT project managers in sharing knowledge. The development was based on a comprehensive literature review and on eighteen interviews conducted with participants of agile projects to validate and refine the framework. In addition, the completeness, the complexity, the ease of use, and the impact of the framework were evaluated by four senior project managers in a focus group meeting. The Design Science Research (DSR) method was used in the development, enabling the experience of joining theoretical foundation with its application in a real-world environment (Narazaki et al., 2020).

The affordances classification presented by Sun et al. (2019) was adopted. Those authors carried out a systematic literature review to identify enterprise social media affordances and their influence on knowledge sharing. Ten different classifications, encompassing thirty-eight affordances were analyzed and consolidated, resulting in a reclassification into five groups of related affordances: Association, Editability, Notified Attention, Reviewability, and Pervasiveness.

2.2 - THE INT-SM4KS FRAMEWORK

The framework's design drew on the concepts of affordance perception, affordance actualization and affordance effect (Bernhard et al., 2013; Volkoff & Strong, 2017). To provide a more comprehensive understanding of the artifact developed, two views of the framework are presented: the component view and the integrative view. The two perspectives are complementary, and this is how the framework describes the environment approached in the work.

2.2.1 THE COMPONENT VIEW

In the component view, one can observe the representation of the sequence of three steps in which knowledge sharing occurs in the project through human interactions enhanced by the affordances of social media technology integration. The component view is presented in Figure 1.

Figure 1 – Component view of the INT-SM4KS framework
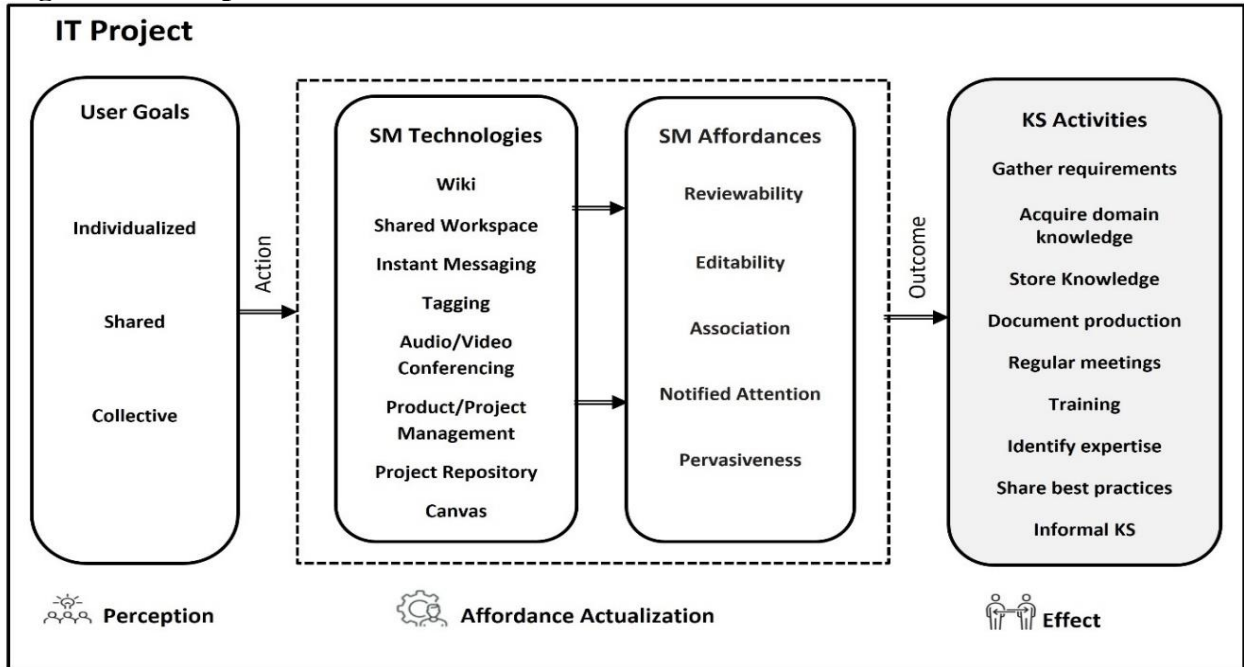
Note: created by the authors.

The first step involves the perception process where the goal-oriented users perceive the social media affordances and the opportunities to perform actions. The second comprises the affordance actualization, where the user turns possibility into action, making use of the perceived potential to support his goals. Finally, in the third step, the affordances actualization will produce an effect of immediate concrete outcomes for achieving knowledge sharing goals.

2.2.2   THE INTEGRATIVE VIEW

The integrative view keeps the same components and their respective elements, but they are presented differently. The goals and actions are still present on the left, and the resulting knowledge sharing activities are still present on the right. However, in the central component of affordance actualization, the integration of social media technologies is highlighted.

The inner circle represents the proposed set of tools integrated into the same interface, from which they can all be activated. The tools are grouped by their primary impact on the project's knowledge-sharing activities – namely, control, storage, and communication – as indicated by the different colors. This categorization is supported by the literature (Eriksson & Chatzipanagiotou, 2021; Ikemoto et al., 2020; Narazaki et al., 2020) and corroborated by the interviewee responses. The integrative view is presented in Figure 2.

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Figure 2 - Integrative view of the INT-SM4KS framework
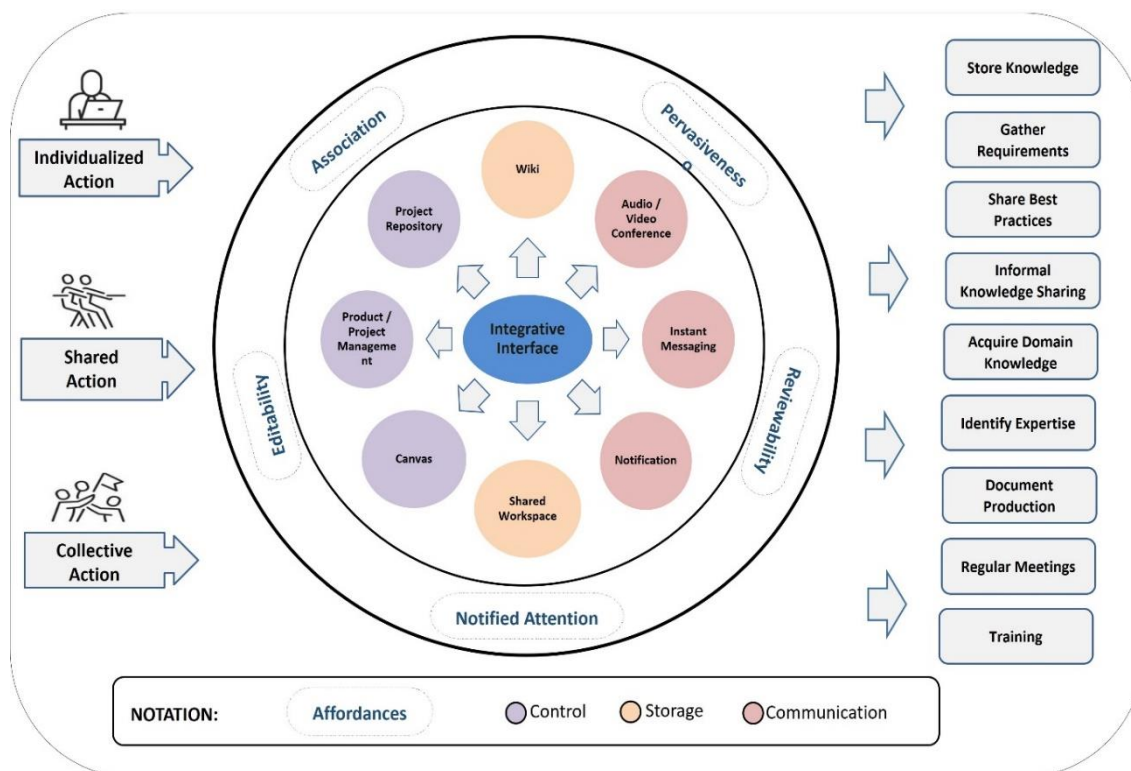
Note: Created by the authors.

On the left side, we can see the technologies used mostly for control: project repositories, product/project management, and canvas. In the center, the technologies are used mostly for storing knowledge, i.e., wikis and shared workspaces. On the right side, the technologies are used mostly for communication, i.e., audio/video conferences, instant messaging, and notifications. The outer circle contains the five groups of materializable affordances. This arrangement indicates that the set of affordances is related to all the technologies, that one technology can materialize one or many affordances, and that many technologies can materialize one or many affordances.

3 - ANALYSIS OF THE ARTIFACT ACCORDING TO CAPES CRITERIA

In accordance with the CAPES' guidelines, a framework can be categorized as an "Unpatentable Process/Technology or Product/Material", which consists of "products and/or technological processes that, due to legal impediments, do not have a formal protection mechanism in Brazilian territory, including any intellectual property assets" (CAPES, 2019, p. 72). In this regard, the artifact, i.e., the framework, complies with the set of criteria used by CAPES to assess an unpatentable process/technology: adherence, impact, applicability, innovation, and complexity. The evaluation of the framework's compliance with each criterion is thus shown below.

The **adherence** of the framework is high, since it was developed as an activity of a graduate program, originated in the program research lines, and connected to an axis project within the "Information Technology and Innovative Projects." line. As a consequence, we can assert that the thesis and the framework adhere completely to the graduate program (PPGP) and the research line of the advisor professor.

The **impact** is potentially relevant. The efficient application of the framework in IT projects can possibly assist project managers by improving the benefits of knowledge sharing among project participants as well as between different projects. These benefits can increase managerial effectiveness and have a favorable impact on the success of IT projects carried out within an organization. The demand was spontaneous, and the general objective of the work was already defined at the beginning of its execution, although the specification of its characteristics was not, because it is an activity inherent to the project's work. The impacted area is potentially large, encompassing all the activities of IT project management; a more precise estimate of this extent depends on the use that will be made of the framework.

The **applicability** has the potential to be very high, because the framework will be available to be used by the large community of professionals working on IT projects. Additionally, as knowledge sharing processes and IT project execution are widespread throughout organizations, there is good potential for growth in the use of the framework by project professionals from various business sectors.

According to CAPES' directions, the classification for the **innovation** criterion is based only on the generation of knowledge, not on the features of the technological product such as usability, complexity, or impact (CAPES, 2019). In this respect, the framework can be considered an innovative medium-content production because the combination of technical knowledge to be employed has already been established. Knowledge was created as a result of the framework's development; it was related to the application, integration, and/or technological evolution of existing knowledge.

In terms of the framework's **complexity**, it can be considered a medium-complex production resulting from the combination of pre-existing and stable knowledge regarding the various actors involved in its development. This criterion must be understood as "a feature associated with the diversity of actors, relationships, and knowledge required for product elaboration and development" (CAPES, 2019, p. 24).

4 - THE USE OF THE INT-SM4KS FRAMEWORK

The framework development was anchored in practitioners' information and suggestions, addressing users' wants and needs to produce knowledge that is solution-oriented in order to propose a practical artifact (Shapiro et al., 2007; Van Aken, 2005). The main objective of the work is the proposition of a framework for the integrated use of social media tools to support knowledge sharing in IT projects, to assist IT project managers in solving issues highlighted by studies on social media adoption and use. The goal of the artifact is to help project managers with developing their personal technology strategy and optimizing technology use for knowledge sharing, by planning training events, for example.

In this regard, we initially stress that the project manager must ensure that senior management agrees with the knowledge-sharing initiatives planned for the project. Organizations need to plan their investments and decide on different demands that consume resources and sharing knowledge may not always be a top priority. This is frequently true for projects developed by organizations that contract out the project work, where the contractor decides not to invest in knowledge sharing in order to reduce costs. The identification and persuasion of the key stakeholders in the issue to be addressed is one of the three central dimensions in their engagement framework proposed by Faff et al. (2021).

The project manager's next move is to explore the subject, becoming familiar with the tools, activities, affordances, and other framework components. This comes after securing the agreement of the key stakeholders for the investment. In this regard, Silva and Chaves (2021) identified that a lack of knowledge of social media tools is a barrier to their use in IT projects

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to share knowledge, corroborating Ghobadi and Mathiassen (2016) and Riege (2005), who assert that a lack of familiarity or experience with collaboration technologies may have a negative impact on effective knowledge sharing.

The knowledge of the framework elements will enable the manager to define how knowledge sharing will take place in his project, applying it to the situation of the problem he wants to address. Then he will be able to decide which objectives he wants to achieve and the means by which he would do it. At this point, he must also consult the mapping presented in Figure 3 to select which affordances match the knowledge sharing activities he wants to develop as well as the tools that will be used .

Figure 3 - Mapping between affordances and social media tools

	Affordance	Wiki	Shrd Wksp	A/V Conf	Notf	Inst Msng	Canv	Pj/Pd Mgmt	Proj Rep
Association	A10 - Find information I already knew or was aware of. In or out of the project.	X	X				X	X	X
	A15 - Find people I already know or am aware of. In and or of my project.					X			
	A20 - Find new information I did not know or wasn't aware of. In or out of the project.	X	X				X	X	X
	A25 - Form relationships with other users, e.g., friending, following, etc.					X			
	A30 - Join individual conversations, groups or online communities.			X		X			
	A35 - Consult and react online to others' presence, profiles, content and activities, e.g., adding a tag, commenting, responding a question, "like", etc.	X		X	X	X	X	X	X
	A40 - Obtain and use others' files, documents, photos, or other information.	X	X	X		X	X	X	X

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	A45 - Share files, documents, photos, videos, links, and other information with others.	X	X	X		X	X	X	X
	A50 - Direct public messages to and receive public messages from a specific individual or group.					X	X	X	X
	A55 - Enrich the text through the use of graphical icons, photographs, etc.	X	X			X	X	X	X
	A60 – Control file sharing enabling.		X	X		X	X	X	X
	A65 – Control chat enabling to internal and/or external users.					X	X	X	X
	A70 – Share screen in video events			X			X		
	A75 – Control internal/external participation permission in audio/video events			X					
	A80 - Create audio/video conference rooms			X					
	A85 - Communicate between audio/video conference rooms			X					
Editability	E10 - Edit others' information after they have posted it.	X	X				X		X
	E15 - Edit my information after I have posted it.	X	X			X	X	X	X
	E20 - Collaboratively create or edit content, e.g., documents and posts.	X	X				X		X
	E25 - Select or subscribe to specific groups and content.					X	X	X	
	E30 - Duplicate content.	X	X			X	X	X	X

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Category	Item	1	2	3	4	5	6	7	8
	E35 - Create groups and control who can participate.			X		X	X	X	X
	E40 - Control access to group stored conversation					X	X	X	X
	E45 - Remove groups and their content					X			
	E50 – Control content update permission	X	X				X	X	X
	E55 - Manage content storage and consultation	X	X				X	X	X
	E60 - Control suitability of included or changed content	X	X						
Notified Attention	N10 - Receive notifications about others' information or updates								
	N15 - Receive notifications about information or updates referring to a specific content of interest.		X						
	N20 - Indicate presence/absence/do not disturb and other status			X		X	X		
	N25 - Check if other users are accessible.			X		X		X	
	N30 – Send notification about audio/video conferences and other events			X	X				
	N35 - Create automatic notification about audio/video conferences and other events			X	X				
	N40 – Send notification about content to another user	X	X	X	X		X	X	X
	N45 - Notify request for permission to speak in a video conference			X					

Pervasiveness	P10 - Get quick responses to my requests from others.					X			
	P15 - Communicate with others from any place, while moving, commuting, or traveling.	X	X	X	X	X	X	X	X
	P20 - Communicate with others at any time.	X	X	X	X	X	X	X	X
	P25 - Communicate with infrequent or less important work relationships.		X	X	X	X	X	X	X
Reviewability	R10 - Find information about previous projects	X	X			X	X	X	X
	R15 - Users are able to view and reuse knowledge after posted, at anytime they need	X	X			X	X	X	X
	R20 - Conversations may be searched, browsed, replayed, annotated, visualized, and restructured					X	X	X	X
	R25 - Search for information or people by entering search words.		X			X	X	X	X
	R30 - Learn about who knows what in the organization, identifying experts in relevant fields	X	X	X		X	X	X	X
	R35 - Search for information or people by following links between contents.	X	X		X				
	R40 - Search for tags or keywords that someone else has added to content.	X	X				X	X	X
	R45 - See other people's answers to other people's questions.					X	X	X	X

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R50 - Include information, photos, and other content on media that present my personal identity	X			X	X	X	X
R55 - Adjust my media profile to my preferences and abilities				X	X	X	X
R60 - Participants can use the interaction between team members, which is automatically preserved				X	X	X	X
R65 - Include files, documents, photos, videos, audios and other project content.	X	X		X	X	X	X
R70 - Search for files, documents, photos, videos, audios and other project content.	X	X		X	X	X	X
R75 – Record and preserve audio/video content.			X	X			
R80 – Transcribe and preserve audio/video content.			X				
R85 - List the audio/video event participants			X				

Note: Created by the authors

It is recommended that the project team members participate in this step, in order to discuss the best tool features and select a set of tools that best fits project needs because the mismatch between individual needs, tools, and work routines also restricts knowledge sharing practices (Foote & Halawi, 2018; Riege, 2005; Santos et al., 2012; Zahedi et al., 2016). After these definitions have been consolidated, market tools should be prospected to determine which ones best match the proposed solution, if necessary. In this context, if we define integration as the use of more than one social media technology in the same platform, Microsoft Teams, Azure DevOps, Jira, Trello, Redmine, and Google Workspace were the most often mentioned products by the practitioners who participated in the research.

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