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Introduction to the Special Issue: The Literature Review in Information Systems

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Abstract:

There has been a flowering of scholarly interest in the literature review as a research method in the information systems discipline. We feel privileged to contribute to this conversation and introduce the work of the authors represented in this special issue. Some of the highlights include three new methods for conducting literature analysis and guidelines, tutorials, and approaches for coping with some of the challenges involved in carrying out a literature review. Of the three "new method" papers, one (ontological meta-analysis and synthesis) is entirely new, and two (stylized facts and critical discourse analysis) are novel in the information systems context. The other four paper address more general issues: the challenges of effective search strategies when confronted with the burgeoning volume of research available, a detailed tool-supported approach for conducting a rigorous review, a detailed tutorial for conducting a qualitative literature review, and a discussion of quality issues. Collectively, the papers place emphasis beyond the traditional "narrative synthesis" on the importance of selecting the appropriate approach for the research context and the importance of attention to quality and transparency at all stages of the process, regardless of which approach is adopted.

Keywords: Literature Review, Research Methods, Information Systems Discipline, Conceptual Research.

1   A Renaissance of Literature Analysis as A Research Method

For many years, the literature review was in danger of being seen as a necessary evil that researchers paid lip-service to before getting onto the "real" work of conducting research. The last three or four years have challenged that view. We are currently witnessing a flowering of interest, a "renaissance" if you like, in literature review and research synthesis approaches and methods. There are two motivations for this special issue: first, a growing awareness that we can, as a discipline, improve on the current de-facto standard of the narrative literature review; and, second, increased understanding of the range of types and methods available for conducting effective literature reviews.

The Motivation for Change

Elsewhere, we have argued for the need for change in our approach to literature analysis in recent forums (Tate, Furtmueller, & Win, 2014; Armitage & Conner, 2001). The first motivation for this special issue was to challenge the prevailing orthodoxy in information systems research, the "narrative synthesis" of previous literature, conducted by verbally describing past studies (King & He, 2005). Usually, the voice of the researcher in a narrative review is absent and an objective stance is adopted. The review focuses on presenting knowledge without considering the context in which that knowledge was created (Hart, 1998). In our call for papers, we argued that the decontextualized narrative synthesis approach suffers from "the god trick" of "seeing everything from nowhere"—in other words adopting a fiction of objectivity and universal coverage but, in fact, presenting a biased and personal selection.

The lack of consideration of the context of knowledge creation potentially impedes critical engagement with previous literature. For example, advances in research methods may cast doubt over previous studies using dated methods. Examples of such changes are the realization that, in quantitative studies, formative measurement deserves different treatment than reflective measurement (Diamontopoulos, 2011; MacKenzie, Podsakoff, & Podsakoff, 2011; Edwards, 2011). An example in qualitative work is the rise of socio-materiality as a primary ontological and epistemological lens (Orlikowski & Scott, 2008), which requires the re-interpretation of past work in this new context. Another example is the increasing consensus of design research principles and the evaluation of design research, beginning with the seminal work by Hevner, March, and Park (2004). Again, earlier studies may need to be re-evaluated in light of the newly accepted principles. Other contextual factors affecting knowledge creation may be political; for example, Sylvester, Tate and Johnstone (2013) have argued that one of the reasons for the phenomenal success of the ServQual instrument (Parasuraman, Zeithaml, & Berry, 1988) was its authors' ongoing advocacy, which continued over several decades. It is possible that equally meritorious work did not gain the same prominence partly because the authors simply moved on the other things.

Besides not considering the context, narrative literature review lacks any standardized procedure, and, thus, they afford the researcher considerable liberties in choosing (and excluding) and interpreting past research. One effect of this liberty is "meaning variance", where constructs with the same name may have slightly (or not so slightly) divergent definitions and operationalizations depending solely on the researcher's choices and interpretations. As a result, narrative reviews are typically ineffective in building a genuinely cumulative tradition, with knowledge "piling up" rather than "building up". Combined with an editorial emphasis on novelty, the narrative review becomes a contributing factor in a raft of overlapping but incommensurable studies. Lacking any standardized procedure, narrative reviews are typically ineffective in building a genuinely cumulative tradition. On the other hand, Boell and Cecez-Kecmanovic (2014) have argued that excessive attention to a structured approach could undermine critical engagement with literature. It is possible that the liberties of the narrative review allow the occurrence of Eureka moments in literature analysis, which may be suppressed by more rigid and structured approaches.

As the IS discipline has aged, some research streams have become extremely large, complex, contradictory, and heterogeneous in their theoretical foundations and methodologies. Diffusion of innovation (Greenhalgh, 2005) and IS-service quality (Sylvester et al., 2013) both fall into this category. It is unrealistic to "synthesize" these bodies of knowledge because they contain conflicting findings. As one conference presenter said recently, "arrows are going every which way". Seeking synthesis in heterogeneous literatures can de-emphasize important differences and areas of debate in the search for "the mythical center" (Sylvester & Tate, 2008).

While this special issue has been in preparation, we have seen other important papers published. Recognizing the diversity of types and purposes for conducting a literature analysis, Pare, Trudel, Jaana, and Kitsiou (2015) have developed a typology of literature reviews, including new (to IS) literature review forms such as the "umbrella", a method of evidence synthesis that has recently emerged in the health sciences domain where evidence from multiple systematic reviews (qualitative or quantitative) is integrated into one accessible and usable document to address a narrow research question. Rowe's (2012) editorial in *European Journal of Information Systems* explicitly positioned reviews as a particular genre of research and makes a call for more review papers. Two years later, Rowe (2014) explored the diversity in the review genre with a classification scheme. Scholars have also written IS-specific tutorials on quantitative techniques such as Bayesian structural equation models for integrating prior knowledge (Evermann & Tate, 2014), which make the use of these methods accessible to the wider community of IS researchers rather than being restricted to a few methods specialists.

Moving to the second motivation for this special issue, increased understanding of the range of methods available, we need to step back from the deficiencies or merits of particular forms of literature review and ask why we conduct literature reviews in general. Until recently, little attention has been paid to the underlying structure and range of methods for conducting effective literature reviews. An effective literature review can and should serve one or multiple purposes such as summarizing prior knowledge, aggregating or integrating data, explaining and building theory, and critically assessing extant literature (Pare et al., 2015). These outcomes require clear guidelines and support processes for a comprehensive literature review of various types. These may vary depending on the nature and purpose of the literature review.

We consider conducting a literature review to be conducting research, and there are as many ways of analyzing research literature as there are of conducting other forms of research. This also means that there are issues of acceptable process and demonstration of validity involved in literature research as in any research method. In fact, many paradigms and methods for gathering and analyzing empirical data have direct correspondences or close analogies in methods of "data gathering" (searching and selecting sources) and "data analysis" (where research literature is the "data") for conducting literature reviews. These include crucial discourse analysis (Wall, Stahl, & Salam, 2015), grounded theory (Wolfswinkel, Furtmueller, & Wilderom, 2013), soft systems analysis (Sylvester et al., 2013), and stylized facts (Houy, Fettke, & Loos, 2015) to name just a few.

Introducing New Approaches

The papers in this special issue offer a range of perspectives, methods, and techniques and focus strongly on guidance and examples to aid both novice and experienced researchers in effectively using new literature analysis methods and better using familiar methods. Three of the papers in this issue (Ramprasad & Thyn, 2015; Houy, Fettke, & Loos, 2015; Wall, Stahl,& Salam, 2015) introduce new methods.

Ramprasad and Thyn (2015) present an original literature analysis method that is particularly effective for identifying under-researched and over-looked areas and for providing a "picture" of a domain. Titled "ontological meta-analysis and synthesis", this method first involves developing ontological statements that describe the domain from a big-picture view. Although this approach runs the risk of attracting criticism from formal ontology scholars, the domain ontology that acts as the starting point is inductive and depends on face, content, and semantic validity and domain experts' validation. It is lightweight and does not require formal expertise to develop and use; as such, its value as a communication tool outweighs disadvantages in formalism. The starting point of the method is "an (agreed by domain subject matter experts) ontology; not the ontology, recognizing that there can be many equally valid ontologies for the same domain. Each ontology is a lens to study the domain". The authors then use the ontology as a basis for searching and classifying papers. Another strength of the approach is that, following the analysis, the results can be presented in a visual overview, which shows simply and graphically the "bright" (well-researched), "light" (little-researched), and "blank/blind" (neglected) areas of the domain. Another strength is that the approach works equally well for overviewing the general coverage of other bodies of evidence, such as practitioner reports or government statistics. When we first saw this method presented at a conference, the audience were enthusiastic and considered it to be novel, powerful, simple, and intuitive.

Houy and colleagues (2015) adapt the stylized facts method from economics for the IS discipline. Addressing the challenges of accumulating knowledge on a heterogeneous domain, which, as we suggest earlier, tends to privilege novelty over replication, they note that "only a few topics of interest to IS could offer adequate data material to conduct a meta-analysis". Noting that quantitative meta-analysis has strictly defined and restrictive methodological requirements that (with a few exceptions) cannot be met by the corpus of IS literature, they suggest that this limitation in the source material may be part of the explanation for the popularity of the narrative-type review because it can be much more inclusive. As a middle-ground between the inclusive but highly subjective narrative review and the formalized and objective but highly restrictive quantitative meta-analysis, the authors offer the stylized facts approach. Stylized facts aggregate heterogeneous knowledge into generalized and simplified statements describing characteristics and relationships derived from empirical observations. The advantage of stylized facts is that they are broadly supported but not necessarily true in every situation and context. For example, the link between increased educational achievement and increased life-time earnings is a stylized fact— frequently true, but vulnerable to many situations and contextual factors where the link does not appear to be present. As the growing body of empirical evidence associated with IS phenomena that have been studied using different theoretical lenses, constructs, and operationalizations grows (precluding quantitative meta-analysis or other quantitative aggregation techniques), this method would appear to have much potential The authors offer an exhaustive treatment of the method from both a theoretical and practical perspective. The authors describe its origins, key features, strengths and weaknesses compared to other methods, and pre-requisites for source data. The authors provide an interesting discussion of how the approach can be used to inductively generate theory from accumulated empirical observations. Once again, they provide an extensive illustration to make the method accessible to researchers who wish to adopt it. In our view, this method potentially provides a valuable tool for IS researchers because it seems well suited as a method for accumulating our mounting body of frequently incommensurate empirical studies.

Wall and colleagues (2015) argue that ideological hegemony in literature reviews can limit our ability to ask new questions. They offer an approach for using critical discourse analysis as a literature analysis methodology. Drawing on Habermas (1984), the authors argue that review papers can be "containers for ideological hegemony upon which entire research disciplines or sub-disciplines are built". They propose critical discourse analysis as a means of opening debate about embedded and taken-for-granted beliefs and assumptions in academic research. They argue that working largely from what is known tends to result in incremental research, while a critical approach, aiming to identify what is marginalized, may identify new research questions. As well as providing a useful theoretical discussion, the authors provide a detailed method, coding scheme, and example for conducting a critical analysis. The authors base their coding scheme on Cukier, Ngwenyama, Bauer, and Middleton's (2009) and adapt it. They guide readers through assessing comprehensibility, truth claims, sincerity, and legitimacy in research discourse. Since we have previously challenged "the god trick" in which the author of a literature review disingenuously affects neutral objectivity when in fact they come to the task (as we all do) with their own set of subjective assumptions, we applaud this method for surfacing and challenging the things we take for granted.

Challenges and Strategies

The other four papers address more general issues and challenges: searching, navigating, managing, and analyzing the sheer volume of research available and evaluating the quality of standalone literature review papers.

van Brocke, Simons, Reimer, Niehaves, and Plattfaut's (2015) paper addresses the challenge of the "mushrooming of publication outlets" such that "with only a few mouse clicks, researchers are able to retrieve more literature than anyone would be able to read and evaluate in a lifetime". They observe the unique challenges of searching IS-related literature that relate to the discipline's characteristics: the diversity of themes and sources. the fragmented and cross-disciplinary characteristics of IS topics, and the tendency for topics to come and go with waves of technology or for similar concepts to be published under different headings. They also identify practical issues in searching research literature: the volatility of coverage of research databases, their different search and retrieval functionality, the different coverage and subscription models available at different institutions, and the necessity of using reference management software despite its frequent glitches to cope with the sheer volume of research papers involved. They continue by offering pragmatic guidelines for managing and documenting the search

process and recognize that different strategies may be required depending on the nature and purpose of one's review.

The challenges of managing the enormous amount of papers that are potentially involved in a literature review is also the subject of Bandara, Furtmueller, Gorbacheva, Mikson, and Beekhuyzen's (2015) paper. This paper explicitly views "the literature review process as a qualitative study" treating research literature as "the data set". These authors advocate for the use of research tools, such as NVivo, Leximancer, CiteSpace, and Excel, to support what can be a herculean task. The authors offer practical guidelines for selecting a tool and a detailed, four-step, tool-supported process: extraction of relevant literature, organization and preparation for analysis, detailed coding and analysis, and write-up and presentation. Echoing the concerns of van Brocke et al. (2005), these authors also note the challenges involved in searching and selecting papers. The authors then describes the process of analyzing and coding research literature. Echoing a recurring theme of the papers in this issue, they show that one can adopt many different coding schemes using both inductive and deductive approaches depending on the nature and purpose of the review. The beauty of the approach is that it "squeezes" research papers thoroughly to extract the rich data contained therein and, thus, goes beyond the "results" sections to allow one to capture factors such as the business domain or historical context of the study. A tool-supported approach also allows one to easily capture and manage samples and excerpts from the paper to be captured to illustrate the coding categories—a good practice in the presence of the widespread "meaning variance" that can occur when researchers synthesize at construct level and do not compare detailed definitions and operationalizations. This approach encourages the data to reveal emergent and surprising themes, unexpected similarities, and contradictions that the researcher did not expect and was not specifically looking for. In the spirit of qualitative research, this approach "lets the data speak". The authors also offers suggestions for rich diagrams and visualizations to present the results of the analysis. While advice in this paper is in no-way restricted to novices—many experienced researchers will recognize the advice they have long needed without knowing it—we note that the novice researcher well versed in tool-supported literature analysis will be well placed to carry out qualitative analysis on empirical data after reading it.

Schryen's (2015) paper, in keeping with *CAIS*'s aims, offers a detailed tutorial on developing qualitative IS literature reviews. The author directs the paper more specifically at novices because it provides detailed steps. Schryen also addresses the oft-neglected "before" and "after" activities of literature analysis in considerable detail: the initial framing of the literature and the interpretation of results. Extensive IS-specific illustrations and the use of an integrated example, which guides the reader through the overall process of compiling a qualitative literature review, make this paper relevant and accessible to IS research students.

Templier and Pare (2015) examine the challenging issue of evaluating literature reviews' quality. They make a persuasive argument that while quality is an important criterion for evaluating any sort of research, it is critically important for standalone literature review papers that other researchers "seek out for inspiration and use to position their own studies" because they often become "core, or milestone" papers in a discipline. Increasing interest in the discipline in publishing standalone literature analysis papers (for example, Rowe, 2014) also motivates a strong interest from potential authors, reviewers, and editors in quality criteria. The authors present five stages of a general procedure for conducting literature reviews with a focus on methodological rigor: problem formulation, literature search, screening for inclusion, quality assessment, data extraction, and data analysis and synthesis. They also advocate a contingency approach by arguing that different types of literature reviews, produced for different purposes, require different processes and attendant quality criteria. Guided by four quality criteria of rigor (internal validity, objectivity, external validity, and reproducibility), the authors provide a quality checklist for different types of reviews that authors, reviewers, and editors can use.

Common Themes

While the papers presented in this issue are different in focus, they share some themes. van Brocke et al. (2015) and Bandara et al. (2015) discuss the challenges associated with the growing quantity of research. In the same way that it was once said that "no one ever got fired for buying IBM", we observe that there seems to be an informal heuristic that "no one ever got rejected for reviewing only "basket of eight" journals". In the absence of guidelines for navigating the "lifetime" of knowledge available, this has become a safe de-facto standard for researchers, with many perils of ignoring important bodies of knowledge in related or reference disciplines, high-quality conferences, and niche journals to name just a

few. We hope that the discussion of searching strategies from van Brocke et al. and the tool-supported methodologies for handling large volumes of research literature that Bandara et al. and the useful comments in search strategies that other authors in this special issue provide will provide much more detailed, nuanced, and "fit-for-purpose" strategies for searching and selecting papers for their literature reviews.

The particularly challenging nature of IS literature, its diversity, heterogeneity, contradictions, temporal discontinuity, and general lack of consistency necessary for formal meta-analysis or other knowledge accumulation methods is another common theme. Several of the papers in this issue offer much-needed alternatives to trying to broker a "synthesis" when none exists. We urge anyone reviewing research literature to engage with the diversity, subtlety, and contradictions that exist in their area of enquiry in a truthful, critical, and meaningful way. Ideally, this may also be accompanied by some sort of visualization. The ontological meta-analysis method, stylized facts method, critical discourse analysis method, and the various coding options that Bandara et al. (2015) offer all offer researchers new tools and strategies for doing this.

The papers in this special issue emphasize the diversity of types, purposes, approaches, and perspectives for literature analysis and the absolute necessity of a contingency approach for all stages of the literature review process, including searching, selection, evaluation, analysis, and presentation. Several offer explicit guidelines for conducting particular types of review. Like a cookbook, we hope that these "recipes" will raise awareness of the possibilities available and encourage researchers to experiment with untried approaches. However, the possibilities are endless and so are the variations. It will never be possible to catalogue and codify them all. We hope that. beyond explicit methods guidance, some of the heuristics and issues in these papers will assist researchers to formulate their own research analysis methods and encourage mindfulness at all stages of the process.

The final theme we want to highlight is the importance of attention to quality at all stages of the literature review process. Many of the papers argue for the contribution that a structured process makes to the quality of the final literature review or analysis. Allowing for the fact that the process should be highly contingent on the nature and characteristics of the analysis being conducted and that clearly no "one-size-fits-all" approach exists, the majority of the authors, even the ones advocating critical and inductive approaches, recommend some form of systematization. In our view, there is no inherent contradiction between emergent, iterative, inductive, and creative approaches and systematization. In fact, Bandara et al. (2015) show that systematic coding of research literature can reveal unexpected themes or contradictions that the researcher did not initially observe, and Wall et al. (2015) show that a structured method can be developed to guide critical discourse analysis. However, in our view, the range and sophistication of the methods and guidelines now available means that the days of the "naïve" narrative synthesis review—with no explicit attention to purpose, world-view, quality, context, hegemonic assumptions, characteristics of inclusion and exclusion, characteristics of the source literature, and methods of analysis—should be over. This does not mean that narrative and iterative and emergent approaches no longer have a place, but that they need to be underpinned by more systematic, rigorous, and repeatable (or traceable) methods. The goal of systematization is demonstrable research quality. It does not matter whether one's views of quality come from the qualitative or quantitative camp or from somewhere in between. Achieving and demonstrating auditability and truthfulness in qualitative research (Miles & Huberman, 1994) requires equal attention to systematization as the validity, reliability, and replicability of quantitative research (Straub, Boudreau, & Gefen, 2004). Both are equally relevant and important to methods for literature analysis as they are to methods for empirical research. And, in any event, as van Brocke et al. and Bandara et al. suggest, systematization is likely a necessary survival strategy for coping with the sheer volume of knowledge available.

2   Conclusion

We do not believe that discussion of the literature review in information systems reached saturation from this "renaissance" of literature analysis methods publications. For example, the potential of "big data"-type analytics using text-mining approaches in literature analysis remains relatively unexplored. Currently, we largely rely on researchers to manually identify overlapping or similar constructs, but, in the future, this may be automated with text mining and natural language processing algorithms. It is probably not a coincidence that we are seeing a renaissance of interest in forms and methods for literature review and

analysis at the same time as a massive increase in the sources readily available to researchers. Since the range and number of literature sources available and our ability to retrieve and search them almost instantly will only increase with the power and sophistication of technology, ongoing attention to literature analysis and presentation methods is essential.

References

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. British Journal of Social Psychology, 40, 471-499.

Bandara, W., Furtmueller, E., Gorbacheva, E., Mikson, S., & Beekhuyzen, J. (2015). Using Insights from Qualitative Data Analysis and Tool Support for Rigorously Reviewing Literature. Communications of the AIS. 37(8), 154-204

Boell, S., & Cecez-Kecmanovic, D. (2014). On being "systematic" in literature reviews in IS. Journal of Information Technology, 1-13.

Cukier, W., Ngwenyama, O., Bauer, R., & Middleton, C. (2009). A critical analysis of media discourse on information technology: Preliminary results of a proposed method for critical discourse analysis. Information Systems Journal, 19(2), 175-196.

Diamontopoulos, A. (2011). Incorporating formative measures into co-variance-based structural equation models. MIS Quarterly, 35(2), 335-358.

Edwards, J. R. (2011). The fallacy of formative measurement. Organizational Research Methods, 14(2), 370-388.

Evermann, J., & Tate, M. (2014). Bayesian structural equation models for cumulative theory building in information systems—a brief tutorial using BUGS and R. Communications of the Association for Information Systems, 34, 1481-1514.

Greenhalgh, T. (2005). Storylines of research in diffusion of innovation: A meta-narrative approach to systematic review. Social Science & Medicine, 61(2), 417-430.

Habermas, J. (1984). The theory of communicative action. Boston, MA: Beacon Press.

Hart, C. (1998). Doing a literature review: Releasing the social science research imagination. London, UK: Sage.

Hevner, A., March, S., & Park, J. (2004). Design science in information systems research. MIS Quarterly, 28(1), 75-105.

Houy, C., Fettke, P., & Loos, P. (2015). Stylized facts as an instrument for literature reviews and cumulative information systems research. Communications of the AIS. 37(10), 225-256.

King, W. R., & He, J. (2005). Understanding the role and methods of meta-analysis in IS research. Communications of the Association for Information Systems, 16, 880-894.

MacKenzie, S., Podsakoff, P., & Podsakoff, N. (2011). Construct measurement and validation procedures in MIS and behavioral research: Integrating new and existing techniques. MIS Quarterly, 35(2), 293-334.

Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook (2nd ed.). Newbury Park, CA: Sage Publications.

Orlikowski, W., & Scott, S. (2008). Sociomateriality: Challenging the separation of technology, work and organization. Academy of Management Annals, 2(1), 433-474.

Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: A multi-item scale for measuring consumer perceptions of service quality. Journal of Retailing, 64(1), 12-40.

Pare, G., Trudel, M.-C., Jaana, M., & Kitsiou, S. (2015). Synthesizing information systems knowledge: A typology of literature reviews. Information and Management, 52, 183-199.

Ramprasad, A., & Syn, T. (2015). Ontological meta-analysis and synthesis. Communications of the AIS. 37(7), 138-153.

Rowe, F. (2012). Toward a richer diversity of genres in information systems research: New catagorization and guidelines. European Journal of Information Systems, 21(5), 469-478.

Rowe, F. (2014). What literature review is not: Diversity, boundaries and recommendations. European Journal of Information Systems, 23(3), 241-255.

Schryen, G. (2015). Writing qualitative IS literature reviews—guidelines for synthesis, interpretation and guidance of research. Communications of the AIS. 37(12), 286-325.

Straub, D., Boudreau, M.-C., & Gefen, D. (2004). Validation guidelines for IS positivist research. Communications of the ACM, 13, 1-79.

Sylvester, A., & Tate, M. (2008). Beyond the "mythical centre": An affirmative post-modern view of SERVQUAL research in information systems. In proceedings of the European Conference in Information Systems (pp. 13-24).

Sylvester, A., Tate, M., & Johnstone, D. (2013). Beyond synthesis: Re-presenting heterogeneous research literature. Behaviour and Information Technology, 32(12), 1-17.

Tate, M., Furtmueller, E., & Win, K. (2014). Tutorial: Beyond synthesis—contemporary and innovative approaches for analysing and presenting research literature. Tutorial presented at Australasian Conference on Information Systems, Auckland, New Zealand.

Templier, M., & Pare, G. (2015). A Framework for Evaluating Literature Reviews. Communications of the AIS, 37(6), 112-137.

vam Brocke, J., Simons, A., Reimer, K., Niehaves, B., & Plattfaut, R. (2015). Literature Search in Information Systems Research: Challenges and Recommendations. Communications of the AIS, 37(6), 205-224.

Wall, J., Stahl, B., & Salam, A. (2015). Critical Discourse Analysis as a Review Methodology: An Empirical Example. Communications of the AIS, 37(11), 257-285.

Wolfswinkel, J., Furtmueller, E., & Wilderom, C. (2013). Using grounded theory as a method for rigorously reviewing literature. European Journal of Information Systems, 22, 45-55.

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