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Statements on the Contribution by Grisold et al. from Issue 2/2022

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In a Letter to the Editor, Hans-Gert Gräbe and Ralf Laue commented on the paper “The Five Diamond Method for Explorative Business Process Management” by Grisold et al. (2022) which has been published in the BISE Issue 2/2022. Gräbe and Laue raise concerns of how Grisold et al. introduce the TRIZ method and relate it to their explorative BPM approach. In their response, Grisold et al. address the methodological differences between TRIZ and explorative BPM.

The critical commentary and the authors’ subsequent response are presented below to provide clarity.

Christof Weinhardt, Editor-in-Chief.

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1 Comments on the Contribution by Grisold et al.: The Five Diamond Method for Explorative Business Process Management

Hans-Gert Gräbe, Ralf Laue

In Grisold et al. (2022), recently published in the BISE Journal, the authors propose a method for explorative business process management (BPM). Their method analyzes processes with the aim to suggest process innovation towards new value propositions. We strongly agree with the authors that such explorative work that considers business models in addition to isolated business processes deserves a lot of interest in the BPM community. However, we disagree with the authors concerning their discussion of related work with respect to the TRIZ approach, and we would like to substantiate our concerns in this comment. Grisold et al. (2022) propose a method that “guides explorative BPM activities by supporting organizations in identifying opportunities from business and technology trends and integrating them into business processes with novel value propositions”. The method is evaluated against competing artifacts. For this purpose, two design objectives (DO) are identified. An “ex-ante artificial evaluation ... against literature-backed DOs and competing artifacts” is carried out against “selected existing methods from BPM”, “methods from IM” (innovation management) and “TRIZ”. Unfortunately, the comparison with TRIZ is incomplete and is not doing justice to this comprehensive theory. The authors cite only one TRIZ reference, Altshuller (2004). This publication, originally published in 1989 in a publishing house for children’s books (detskaya literatura, Moscow) is a popular science book for (young) students. The cover text of the Russian original states: “The author introduces students to the basics of inventive problem solving. The book contains a large number of

problems, drawn from real-life invention practice.” While this is a worthwhile goal, one cannot expect to find a comprehensive discussion of the theory in such a book. Instead, we refer to common textbooks on TRIZ at an advanced level (such as Altshuller (1999), Shpakovsky (2006), Koltze and Souchkov (2017), Lyubomirsky et al. (2018)), we realize that “trends of engineering system evolution” (also called “laws of development of technological systems” or “tendencies of technical system innovation”) is given a lot of space. The purpose of those trends is to predict possible evolution of systems, i. e., to find and exploit the opportunities that are coming along. Therefore, the statement that TRIZ “does not address DO.2, as it focuses on solving problems rather than seeking opportunities” is definitely incorrect with regard to TRIZ. Trend-analyzing approaches were also applied to business models and business processes at an early stage, see for example Mann (2007), Smith (2006a, b), and Souchkov (2010). In more recent work (Wagner (2021)), these business trends are also related to other approaches such as the St. Gallen Business Model Navigator (Gassmann et al. 2015). The evaluation of (DO.2c) is therefore also incomprehensible with regard to TRIZ. The same applies to the evaluations DO.1 (“method needs to address the exploration goal of BPM”). While it is correct that TRIZ can be used successfully to improve existing products, TRIZ tools such as “S-curve analysis”, “trends” and “system operator” (9 windows) explicitly aim to look for new opportunities. In particular in the area of the development of business innovation strategies in the context of a stronger orientation towards sustainability, a series of contributions were presented at the leading international TRIZ conference TRIZ Future in the last two years, as can already be seen from the conference subtitles “Systematic Complex Problem Solving in the Age of Digitalization and Open Innovation” (2020) and “Creative solutions for a sustainable development” (2021). We acknowledge that there is a lack of publications on TRIZ in academic papers, and—as Chechurin (2016) points out—the discussion on TRIZ to a certain degree “never left the mostly closed circle of the TRIZ developers’ community”. Anyway, TRIZ contains numerous insights and tools that deserve to be studied, developed further and applied by the academic community and in practice. We are convinced that TRIZ can be helpful in the field of explorative BPM and hope that our comment helps to put TRIZ into the right context.

2 Author Response to “Comments on the Contribution by Grisold et al.: The Five Diamond Method for Explorative Business Process Management”

Thomas Grisold, Steven Gross, Katharina Stelzl, Jan vom Brocke, Jan Mendling, Maximilian Röglinger, Michael Rosemann

We would like to thank the authors for their interest in our work. We appreciate their time and commitment with which they engaged with our paper, and that they find the Five Diamond Method both relevant and timely to make BPM initiatives more receptive to (digital) innovation opportunities. We welcome the comments on our paper and take them as an opportunity to clarify the claim and scope of our method. In essence, the comment at hand raises two central concerns: (1) we misread TRIZ, and thus, (2) provide an incomplete evaluation of our method. Both claims are to be treated seriously, and we would like to carefully respond to them in the following.

As for the first point, we would like to recall that our research is positioned in the field of BPM. While we included a brief discussion of the history of BPM in our article (for complementary discussions, see, e.g., Baiyere et al. 2020 and Recker 2014), we would like to emphasize that this community has developed specific assumptions and conventions in relation to how researchers approach specific phenomena (Mendling et al. 2021). To this end, it is important to reinforce the distinction between problem-driven and opportunity-driven business process redesign (Grisold et al. 2019; Groß et al. 2021; Kohlborn et al. 2014; Rosemann 2020). While the former starts with specific problems to be solved (e.g., lack of cost efficiency), the latter is triggered by the exploration of new possibilities that may or may not consider the existing process. Opportunity-driven redesign arises from external enablers that may be relevant for a given organization, but are not yet considered. Opportunity-driven redesign thus implies that a solution is being defined before a potential problem is identified (von Hippel and von Krogh 2016). This is crucial to note because this sets our method—and the assumptions that it is built upon—apart from TRIZ. TRIZ is a problem-solving method that typically capitalizes on opportunities after a problem has been identified (Chechurin 2016). In consequence, TRIZ is built on tools and patterns that allow for exploring innovation opportunities in systematic ways. In the context of BPM, this becomes prevalent, for example, when we consider attempts that use TRIZ to enable process innovation (Smith 2006a; b). The Five Diamond Method, in contrast, aims to provide an open-ended and less structured approach to (digital) innovation. To look at it from a different angle, TRIZ—and the techniques the authors are mentioning, such as the system operator—considers some manifestation of the past (be it in

the form of a problem or existing solution) and thus implies path dependency. In contrast, the main focus of explorative BPM, and our Five Diamond Method, is concerned with future potentials, regardless of whether they arise from or align with present or past developments. Taken together, while we understand that the statement “TRIZ [...] focuses on solving problems rather than seeking opportunities” appears to be imprecise, we would like to stress that this statement needs to be read with the underlying assumptions of BPM in mind.

This leads us to the second point, namely that the authors express concerns in relation to our methodological approach, particularly with regards to DO.2. Again, we would like to put our work into context. In our study, we present design objectives to ensure the quality and usefulness of our method while following a design science research approach. The goal of DO.2 foregrounds the perspective from innovation management, suggesting that “[i]n order to identify and integrate opportunities into new business processes, an explorative BPM method needs to be (a) structured along an innovation process, (b) ensure creativity-seeking, and include (c) business and (d) technology trends as opportunity sources.” (Grisold et al. 2021, p. 155). Again, this statement needs to be read from the viewpoint of BPM. Our understanding of ‘opportunity sources’ implies that past or present operations are bracketed off because key is what happens around the organization, and is *potentially* of value to the organization. New ideas, products or services move into the spotlight, regardless of how good or bad current operations are. As mentioned before, the Five Diamond Method differs from TRIZ in the sense that it is relatively unstructured and seeks to enable an open-ended and unbiased exploration of innovation opportunities. Taken together, we assert that our methodological approach was sound and complete. The same applies to DO.1.

We would like to thank the authors for their interest in our work, and their commitment to engage with it on a deeper level. We agree with the authors that we could have offered an elaborated presentation and discussion of the related literature on TRIZ. The reference we provide in the paper may provide an incomplete view of TRIZ, and we are thankful to the authors for the literature they suggested in their comment. After re-visiting the literature, we are confident that our treatment of TRIZ did not lead to flaws in our evaluations, or leaves them incomplete. At the core of our work is that BPM, and explorative BPM in specific, comes with specific assumptions and goals, and we hope that our response clarifies the concerns expressed by the authors in their comment.

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