

Story-making to nurture change: creating a journey to make transformation happen

Daniel Trabucchi, Tommaso Buganza, Paola Bellis, Silvia Magnanini, Joseph Press, Roberto Verganti and Federico Paolo Zasa

Abstract

Purpose – To overcome change management challenges, organizations often rely on stories as means of communication. Storytelling has emerged as a leading change management tool to influence and bring people on sharing knowledge. Nevertheless, this study aims to suggest stories of change as a more effective tool that helps people in taking action toward transformation processes.

Design/methodology/approach – The authors apply design science research to develop and evaluate how writing a prospective story engages organizational actors in the transformation process. The authors test the story-making artifact in a field study with five companies and 115 employees who participated in 75 workshops.

Findings – Using the findings to discuss the role of story-making in facilitating the emergence of new behaviors in transformation processes, the authors link story-making with the opportunity to make change happen through knowledge dissemination rather than merely understanding it.

Research limitations/implications – The authors illustrate the role of iterations, peers and self-criticism that help story-makers embrace sensemaking, developing a shared knowledge based that influence individual actions.

Practical implications – The authors propose the story-making approach that organizations can follow to nurture change to make transformation happen through knowledge cocreation.

Originality/value – The research explores story-making as an individual act of writing prospective stories to facilitate the emergence of new behaviors through shared knowledge.

Keywords Design science research, Change management, Leadership, Narratives, Sensemaking, Innovation, Shared knowledge

Paper type Research paper

(Information about the authors can be found at the end of this article.)

Received 28 July 2022
Revised 24 September 2022
Accepted 10 October 2022

© Daniel Trabucchi, Tommaso Buganza, Paola Bellis, Silvia Magnanini, Joseph Press, Roberto Verganti and Federico Paolo Zasa. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at: <http://creativecommons.org/licenses/by/4.0/legalcode>

The authors would like to thank all the partners of IDEaLs, who provided their active feedback and reflections in developing the Story Making Experience. A special thanks also goes to all the people from the partner companies who participated in the Story Making Experience.

Introduction

Organizational scholars have extensively investigated the various ways in which stories can be used in organizations at multiple levels, whether to influence internal or external stakeholders (Anteby and Molnár, 2012; Foster *et al.*, 2011; Hatch and Schultz, 2017; Rowlinson *et al.*, 2010), making sense of novel organizational dynamics (Nissley and Casey, 2002) or helping people shape individual identities by sharing knowledge (Foroughi, 2020; Foster *et al.*, 2011; Anteby and Molnár, 2012; Hatch and Schultz, 2017). Conceived as the act of telling and sharing stories, storytelling has emerged in change management as a powerful tool to facilitate change (Buchanan and Dawson, 2007) by delivering an overarching organizational purpose, shared knowledge and bringing people on board in relation to specific goals in a novel scenario (Klein, 2005; Denning, 2008). In other words, stories emerged as a key tool to help employees going through change management activities and embrace transformations.

We live in a world of continuous change, within and outside the organizations, that made change a constant in today's organizations (Petrou *et al.*, 2018), requiring even to

challenges dominant paradigms (Bellis *et al.*, 2022). We refer to various kinds of changes that move from digital transformation to the chance to embrace a new strategic direction for the organization, anything that requires employees to act on new behaviors that benefit the organization (Der Ven, 2011). Nevertheless, people often prefer to stick to the status quo. Indeed, change management emerged over the years as the reaction to the human tendency to resist to change (Waddell and Sohal, 1998). Resistance has a long history in management studies, defined as any conduct that maintains the status quo in the face of pressure to alter the status quo (Zaltman and Duncan, 1977; Dobusch *et al.*, 2021). Stories proved to be a powerful way to reduce resistance, since they enhance the understanding of change, by creating a wider comfort zone in the “transformed” environment. This usually takes the shape of “story-telling” (van der Steen *et al.*, 2021).

In most cases, storytelling implies the historic-rhetoric sharing of stories in a specific timeframe related to events that occurred in the past (Collins and Rainwater, 2005; Whyte and Classen, 2012; Foroughi, 2020). Stories are usually considered monodirectional tools through which managers aim to influence and convince people in a top-down perspective (Klein, 2005; Denning, 2008; Weinpress *et al.*, 2018) where the listener’s role is subordinated in praise of the presenter (Boyce, 1995; Collins and Rainwater, 2005).

Nevertheless, such a conceptualization of storytelling has not been proven free of flaws due to its one-way approach, which addresses individuals merely as recipients of a given story (Collins and Rainwater, 2005; Foroughi, 2020). In other words, stories seem to be proved effective in understanding the need for change within an organization rather than helping employees in actually committing to change by embracing new behaviors.

As a consequence, recent studies have increasingly posed the attention on individual stories as possible enablers of a bottom-up approach, where organizational members can act as “storytellers” of the change they are going through (Collins and Rainwater, 2005; Buchanan and Dawson, 2007). In particular, there is a growing interest in how the creation of stories can facilitate people to embrace the transformational process in first person, taking commitment to new behaviors (Buchanan and Dawson, 2007; Gabriel, 2000).

Besides, as the act of shaping stories has been found beneficial for individuals to make sense of the changing environment (Cunliffe and Coupland, 2012), it also might facilitate the commitment to a particular meaning influencing future actions (Maitlis and Christianson, 2014).

These observations let emerge a gap in the organizational studies of stories. There is a tension toward the study of individual stories, and there are hypotheses on the role that stories may play in the sensemaking process (Weick, 1995), moving from a purely theoretical understanding to a change in the behaviors we can observe in employees, by a knowledge cocreation process. Therefore, this research aims to use stories as a tool that can help employees in embracing change in a transformation process, taking concrete commitments that generate new behaviors within the organization.

To bridge this gap, our study relies on previous studies that conceive the practice of building stories from a more pragmatic, participatory and factual (Dawson and McLean, 2013) rather than rhetoric perspective (Foroughi, 2020). This is formalized in the *story-making* concept. It is a participatory and evolutionary approach aimed at involving people in writing and actualizing their transformational stories within the boundaries of a given organizational direction through the fulfillment of small, concrete actions over time that lead to new behaviors while generating knowledge.

To do so, we formulate the following research objective: to understand the dynamics of story-making at the individual level to embrace change within an organizational transformation.

To reach this goal, we designed a field study with five multinational companies as part of IDeaLs research platform. We apply design science research (DSR) (Hevner *et al.*, 2004) to

develop and evaluate a story-making approach in collaboration with managers and employees from five organizations. Employees from each organization went through a longitudinal story-making experience – articulated around a series of digital collaborative workshops – during which they engaged in writing their prospective story of change to embrace a personal transformation toward a given organizational direction. We gathered the data from a total of 75 workshops through digital surveys and the level of fulfillment of their commitments in different phases of the process.

Our study contributes to the literature on the role of stories in organizations and storytelling as a factual tool for change management in several ways. First, we propose a shift from storytelling to story-making, showing how stories – if embedded in an iterative and longitudinal approach – can facilitate the sensemaking process of the organizational transformation by supporting individuals in going deeper into the meaning of the required change by making sense of it leveraging shared knowledge (Collins and Rainwater, 2005; Buchanan and Dawson, 2007). Therefore, this study provides empirical evidence to extant research, highlighting the pragmatic and constructive nature of sensemaking (Maitlis and Christianson, 2014). In particular, we suggest how the role of iterations, interactions among peers and self-criticism in story-making trigger people in making sense of a new organizational direction (Weick, 1995; Huarng and Ribeiro-Soriano, 2014; Prior *et al.*, 2018) and implement it through small, concrete actions. A second contribution is related with the impact of the stories; storytelling traditionally leads to an emotional activation, while we showed that if the individual has an active role through story-making, this can lead to a physical engagement that links with new behaviors (Kahn, 1990).

The last contribution, coherent with the DSR approach used in this study, is the story-making experience with proved to be a powerful tool to help organizations in onboarding employees toward an organizational transformation by helping them in committing to an actual change.

From a managerial perspective, we propose an actionable process that allows people to participate in shaping their individual trajectories within the boundaries of a given organizational direction as the main protagonists of their own stories, framing their evolution by coordinating with peers in collective transformation.

Literature review

Stories, the earliest form of entertainment and learning in childhood, shape the way we live. As children, we play through stories and love to hear tales from our parents. Growing up, we continue our encounters with stories in books and movies. It is in the nature of humans to think narratively rather than argumentatively or paradigmatically (Weick, 1995). Stories evoke a mix of curiosity and fear, a pretext for understanding and action (Humphreys and Brown, 2002; Patriotta, 2003; Cunliffe and Coupland, 2012). As one of the most powerful artifacts for engaging people, stories have become a relevant subject of research in organization studies. In the next section, we present and review the main contributions in this field.

Stories and narratives in organization studies

In recent years, stories and narratives have received particular attention from organizational scholars, and their adoption in organizational settings has grown (Foroughi, 2020; van Hulst and Ybema, 2020; Abolafia, 2010; Denning, 2008; Bhardwaj and Monin, 2006; Linde, 2001). Narratives and stories are deemed effective persuasion tools to manage key stakeholders (Anteby and Molnár, 2012; Hatch and Schultz, 2017), serving as translation devices across multiple players (Bartel and Garud, 2009; Enninga and Lugt, 2016). Indeed, Hatch and Schultz (2017) show that stories drive organizational actors through rediscovering and recontextualizing microprocesses that bring authenticity to their actions.

In organization studies, scholars distinguish between narratives and stories, assigning them specific roles for organizational purposes (Collins and Rainwater, 2005; Boje, 2001; Gabriel, 2000). On the one hand, narratives are plotted, directed and staged to produce a linear, coherent and monological rendering of events (Boje, 2001). Coherently, organization scholars have devoted increasing attention to historical narratives and their application to building collective memories in organizations (Foroughi, 2020; Wadhvani et al., 2018). In addition, narratives are considered a useful tool to influence internal and external stakeholders (Anteby and Molnár, 2012; Foster et al., 2011; Hatch and Schultz, 2017; Rowlinson et al., 2010), make sense of organizational trajectories (Nissley and Casey, 2002) and help shape organizational identity (Foroughi, 2020; Foster et al., 2011; Anteby and Molnár, 2012; Hatch and Schultz, 2017).

Unlike narratives, stories are defined as “self-deconstructing, flowing, emerging and networking, not at all static” (Boje, 2001, p. 1). As such, stories are considered effective tools to communicate and construct knowledge through collective sensemaking (Boje, 1991; Brown et al., 2009; Gabriel, 2000), share knowledge, innovate and learn (Bartel and Garud, 2009; Brown and Duguid, 2001), manage and strategize (Barry and Elmes, 1997; Fenton and Langley, 2011) and promote or resist change (Brown et al., 2009; Buchanan and Dawson, 2007).

Hence, stories and narratives (Table 1) deserve particular attention in organizations, as they are not simply a passive mirror of reality, but an active attempt to form, preserve, reinforce and avoid various networks of activities (Steuer and Wood, 2008). While narratives are plotted in a linear way to produce a clear image of events, stories are more flowing and emergent in nature (Boje, 2001), making stories particularly effective in fostering engagement in organizations (Buchanan and Dawson, 2007). In the next section, we introduce the concept of storytelling as a leadership tool that organizations use to facilitate change management through stories.

Storytelling as a leadership tool for change management and sensemaking

We mentioned that telling and sharing stories is an effective way to communicate and build collective understanding (Boyce, 1995). More precisely, managers tell strategically interwoven stories about how an organization changes and how it remains the same, thereby attempting to change the meanings employees attribute to the organization, sharing knowledge. As a result, storytelling is gaining momentum as a tool for leaders to facilitate change in organizations (Steuer and Wood, 2008; Denning, 2008).

Change is typically the discontinuity of the state-of-the-art with a potentially destabilizing and disruptive effect on organizational life (Balogun and Johnson, 2004; Bartunek et al., 2006; Lenka et al., 2018; Rieple and Snijders, 2018). Change is often perceived by

Table 1 Stories and narratives in the organizational literature

<i>Narratives/Stories</i>	<i>Scope</i>	<i>Main references</i>
Narratives	Historical narratives for collective memories Tool to influence stakeholder	Foroughi, 2020; Wadhvani et al. (2018) Anteby and Molnár, 2012; Foster et al. (2011); Hatch and Schultz, 2017; Rowlinson et al. (2010)
	Tool to make sense of organizational trajectory Shape organizational identity	Nissley and Casey, 2002 Foroughi, 2020; Foster et al. (2011); Anteby and Molnár, 2012; Hatch and Schultz, 2017
Stories	Tools to create collective sensemaking	Boje, 1991; Brown et al. (2009); Gabriel, 2000
	Tool to share knowledge, innovate and learn Tool to manage and strategize	Bartel and Garud, 2009; Brown and Duguid, 2001 Barry and Elmes, 1997; Fenton and Langley, 2011
	Tool to promote/resist change	Brown et al., 2009; Buchanan and Dawson, 2007

organizational actors as a generator of chaos and anomie – instability resulting from a lack of purpose – resulting in the loss of meaning for individuals who have lived in one organizational world and are asked to adopt the practices, norms and behavior of another (Fronza and Moriceau, 2008).

Thus stories and storytelling are considered powerful tools to facilitate the transition toward a novel scenario and create a new, shared worldview in an organization. Furthermore, top executives can use stories in the context of change for several purposes:

- deliver a broad vision and thereby enable the realization of specific organizational goals;
- manage contradictions and ambiguities between the official discourse and its practical implementation;
- mitigate the suffering caused by loss;
- express the assimilation of values that the absorption process imposes; and
- attempt safe embedding into the official discourse and thereby assure a place in the new order (Steuer and Wood, 2008).

Therefore, in the context of large-scale changes, stories have the power to align people and bring them on board concerning specific business purposes (Denning, 2008). Some authors (Bennis, 2000; Gardner, 2011; Heifetz and Heifetz, 1994) explore how leaders might trigger organizational and social change by devising an appropriate story. A story can unfreeze boundaries, open up possibilities and stimulate change. Coherently, Denning (2008) explains the pivotal role of choosing the right narrative pattern for a particular purpose and performing it in the right way to involve people. Further, Martin (2016) highlights that it is a matter of what is told and about who the teller is: different voices might convey values and messages in different ways.

Hence, storytelling facilitates change, as stories enable people to make sense of it (Reissner, 2011). Sensemaking is defined as the process, considering both emotional and cognitive dynamics, that enable people to understand something (Weick, 1995; Maitlis and Christianson, 2014). Usually, this process is triggered by a discontinuity, which may be related to unexpected events generating an emotional reaction and any kind of change or innovation (Weick *et al.*, 2005). In other terms, sensemaking is the process that deals with the individual who sees a change or a transformation coming and needs to understand it, generating knowledge. Through sensemaking, the individual envisions a novel scenario to embrace and make the change happens (Maitlis and Christianson, 2014).

Indeed, storytelling is a memorable way to present a novel scenario and draw valuable outcomes from inferences within the narrative (Roth and Kleiner, 1998). Stories facilitate a new sense of self-perception, as they allow shaping new worldviews: they provide an intimate experience that enables individuals to make sense of, and become familiar with, the new organizational space (Cunliffe and Coupland, 2012). As a consequence, stories help organizational actors deal with the contradiction between expectations and actual experiences during change (Bryant and Cox, 2003). Through listening to stories, people make sense of what they are experiencing through the ongoing interpretation, assessment and appraisal of their experiences and actions (Cunliffe and Coupland, 2012). Therefore, people learn how to deal with the unacceptable through stories, making it manageable (Humphreys and Brown, 2002). Storytelling is not simply about description and communication, but about emotionally connecting with an audience, creating and sustaining plausible meanings and discrediting obsolete worldviews that no longer fit with the change logic (Gabriel, 2000; Buchanan and Dawson, 2007).

Even if the studies on the topic are many and well-established, they are not free of critiques presented in the next section.

Drawbacks of the storytelling approach

We highlighted how stories in the form of storytelling play a crucial role in facilitating change in organizations through their sensemaking effect. However, scholars also point to storytelling's possible drawbacks or limitations, namely, the monodirectional and rhetoric sharing of stories (Collins and Rainwater, 2005; Foroughi, 2020). Storytelling is mainly used as a top-down tool to communicate and persuade (Klein, 2005; Denning, 2008; Weinpress *et al.*, 2018), instrumentally enhancing the organization's legitimacy, engaging people in the story rather than involving them in its creation (Abolafia, 2010; Brown, 2005). As such, stories create meaning reflecting the organizational reality (Collins and Rainwater, 2005). Through stories and storytelling, groups and organizational members build a shared understanding and collectively center on the meaning (Boyce, 1995).

However, scholars also highlight that stories not only shape collective understanding of a changing environment but also "trajectories of change into the future" (Buchanan and Dawson, 2007). As change occurs, there is never one authentic truth, but multiple stories, as individuals look for their place in the overall picture (Brown, 2006; Czarniawska and Wolff, 1998).

Accordingly, change can be considered a multiplayers' process, and stories framed in an individual's mind can be worthy because they reveal an organizing's plural and fragmented nature (Buchanan and Dawson, 2007). Nevertheless, studies on organizational stories celebrate the art of the storyteller (Collins and Rainwater, 2005). Boje (2003) treats the organization as a storytelling system, where stories are "performed" by organizational members as persuasive anecdotes. Similarly, Gabriel (2000) subordinates the listener to the monologue of the storyteller.

As a consequence, previous studies (Collins and Rainwater, 2005; Buchanan and Dawson, 2007) invite breaking down the barriers that separate active storytellers from passive listeners in the hope of facilitating the development of multiple stories of change. This means having a bottom-up approach where stories are not told persuasively one to many but are shaped and conceived by the organizational actors directly affected by change. Clearly emerging from the literature is the need for a multiple individuals' views of change (Buchanan and Dawson, 2007; Reissner, 2011) that "opens space for a discussion of motives and purposes, power and domination, aspirations and follies, vanity and self-doubt, ambiguity and polyphony" (Tsoukas, 2005, p. 102), allowing the muted and marginalized voices of change to be heard (Sturdy and Grey, 2003).

Besides, allowing individuals to shape their own story of change would facilitate their sensemaking of change, enabling at the same time, future actions and new behaviors (Maitlis and Christianson, 2014). Stigliani and Ravasi (2012) proposed an articulated process that links individual and collective sensemaking, leveraging on the influence of others to make sense of things. Further, Press and colleagues (2020, 2021) pointed out the need for a movement from the individual to the collective dimension and from a learning to a shaping attitude, showing the dynamic nature of sensemaking, often based on convergence and collaborative dynamics (Magnanini *et al.*, 2021, 2022; Zasa *et al.*, 2022).

Buchanan and Dawson (2007) conceptualize organizational change as a multistory process, highlighting the need for empirical studies that integrate multiple views and provide a synthesis that is considering various views and is coherent at the same time. In addition, they suggest that organizational change should be explored retrospectively using stories and prospectively creating stories. In a way, from a human perspective, organizational changes are more about sense-perception, prereflective intentionality and motility than information processing and factual data (Cunliffe and Coupland, 2012). More than the more traditional storytelling, story creation may provide an intimate experience that allows people to become familiar with the new organizational space and find their place within it.

Research gap

Therefore, this study aims to build on this call for a different approach based on multiple individuals building perspective stories within the transformation process. More precisely, through a story-making method, we propose a shift from the rhetoric and chronicle approach (Foroughi, 2020) to a more pragmatic, participatory and factual one (Dawson and McLean, 2013).

We explore whether writing prospective stories of change can facilitate organizational actors to make sense of the change, to commit to it and take action in the transformation process. By focusing on personal stories, we aim to explore how people commit to and act in change (Buchanan and Dawson, 2007; Gabriel, 2000). Our main assumption is that through the creation of their personal stories of change, action toward change is likely to flourish.

In other words, we aim to move from a telling approach based on a retrospective dimension to a making approach based on a prospective dimension that looks ahead to help individuals commit to new behaviors within the organizational transformation.

Therefore, we can reframe the goal of our research – “to understand the dynamics of story-making at the individual level to embrace change within an organizational transformation” – in two specific research questions:

RQ1. How can the act of writing a prospective story of change facilitate the sensemaking of the change required?

RQ2. How can writing a prospective story of change impact the commitment to embrace new behaviors?

Overview of the study

To reach the goal of our study, we adopted a DSR approach, developing an artifact (a process made of various workshops and supporting tools, named “Story-making experience” in the remaining of the paper) to solve a concrete organizational problem (Van Aken, 2004; Hevner *et al.*, 2004; Bertrand *et al.*, 2021; Magistretti *et al.*, 2021; Simeone and D'Ippolito, 2022). This research paradigm is anchored in the natural science research methods and aims to develop and demonstrate theoretically grounded artifacts (Hevner *et al.*, 2004). DSR pertains to a *Mode 2* research paradigm (Gibbons, 1994): like other approaches like Action Research, the researcher is immersed in the context and produces theoretical knowledge in a situated practice. Like AR, DSR aims to solve a real organizational problem (Shani and Coghlan, 2018). The difference consists in the output of the research-practice collaboration, as DSR provides guidelines to researchers on rigorously developing and evaluating artifacts that can be used within organizations. Indeed, this research project is part of the wider IDEaLs research platform [...], that is rooted in the *Mode 2* paradigm, relying on a hybrid approach between Action Research and DSR (Buganza *et al.*, 2022).

Stories have been used in the managerial field predominantly as a top-down tool to influence the sensemaking process of others (Cunliffe and Coupland, 2012). Yet, to perform story-making, employees should be empowered to write their own stories. To test the effectiveness of story-making, it was thus necessary to first create a standard approach to writing the stories. Hence, we developed a story-making experience, an organizational artifact that helps employees write their stories.

The peculiarities of design science research

The DSR paradigm builds upon Simon's theory of the sciences of the artificial (Simon, 1996). According to this perspective, design is a problem-solving method; consequently,

DSR aims to develop artifacts that provide value in the situated practice (Collatto *et al.*, 2018). DSR is already extensively applied in information systems (Gregor and Hevner, 2013) but can bring value even further to areas of strategic management or organizational theories (Birkinshaw *et al.*, 2014).

The process of DSR addresses both the development and evaluation of an artifact (Hevner *et al.*, 2004). An artifact is defined as any concrete or abstract method, tool or process which provides useful value to its' user (Hevner *et al.*, 2004). Peffers *et al.* (2007) describe seven activities that ensure rigor and fit of the DSR approach, which are discussed in the following section.

Overview of design science research in the transformation context

DSR represents a problem-centered approach: starting from a concrete organizational problem, the researchers suggest artifacts to overcome these challenges. To some extent, this reflects other organizational problem-solving approaches like appreciative inquiry – an approach focused on problem-solving that begins in a workshop setting, where the researcher supports the emergence of the main pillars of the organization life (Stowell, 2022). The appreciative inquiry (AI) process consulting approach focuses predominantly on what is working to strengthen these positive aspects (Brands and Elam, 2017). Differently, we propose the development of a tool through DSR which allows every participant to express their expected behaviors: opportunities and tensions will be addressed in a collaborative environment by the participants.

Problem identification and motivation. This research is part of IDEaLs (www.ideals.polimi.it/), cofounded by Politecnico di Milano and the Center for Creative Leadership, a research platform that links researchers and practitioners. In the year of study, the research problem was defined in collaboration with practitioners, which yielded a relevant organizational problem anchored in managerial theories (Shani and Coghlan, 2018). The heterogeneity of involving multiple stakeholders in the research process provided reflexive depth in the research results' design, development and evaluation. For each organization, a core-team of managers first defined their own organizational problem, linked with a transformation project, that move from the need to embrace digital transformation to the willingness to develop new forms of diffused leadership (all the challenges and related transformation projects are discussed in Table 2). With the help of the research team, these problems were linked to theoretically relevant problems into a single overarching research problem (Shani and Coghlan, 2018) which is the need

Table 2 Challenges of the five companies		
Partner	The challenges	Ongoing transformation project
Alpha	What is your personal commitment to allocating 10% of your time to fostering innovation?	To develop an innovation culture
Beta	How can you be recognized as an innovative leader?	To let emerge new forms of leadership
Gamma	How can you be recognized as a partner for the development of modular and configurable solutions?	To craft a new innovation culture
Delta	How should I change my daily behaviors to realize our company's new meaning in my daily work?	To embrace a new organizational direction
Epsilon	How do you have to change – and what do you have to learn – to take advantage of digital opportunities while remaining at the center?	To own and exploit digital transformation

to help people embracing concrete actions and new behaviors coherent with the transformation goals.

Objective of the solution. As a result, this research aims to address the problem of employee participation in organizational innovation activities (Trabucchi *et al.*, 2020). Our objective was to develop a solution which would support sensemaking in periods of change (Röth and Spieth, 2019).

Design and development. To achieve this aim, we developed a *story-making experience* which could support the individual sensemaking process. The *story-making experience* consists of a series of organizational development workshops and a card-set with instructions. The artifact was designed in an iterative process of alternative generation and testing (Hevner *et al.*, 2004) based on external kernel theories (Gregor and Hevner, 2013). Specifically, we rely on design theories on narratives to develop a story-making approach, as outlined in the following sections. In the following sections, we illustrate the development and evaluation of the artifact.

Demonstration. After the development, we tested the artifact in one field study for each company in IDEaLs. In each organization, the artifact was applied to a sample of the employees to help facing the organizational transformation. For the research team, the demonstration acted as a test on the field. It helped to gather insights from repeated usage, which were implemented in a successive version of the *story-making experience*.

Evaluation. We discuss both the quantitative impact of the approach on employees' change in behavior and the qualitative usage of the approach (Hevner *et al.*, 2004). Finally, we discuss our findings highlighting both theoretical and practical implications.

Communication. We highlight the utility and novelty in the eyes of the practicing professionals who contributed to its' development and application.

Research design and participants

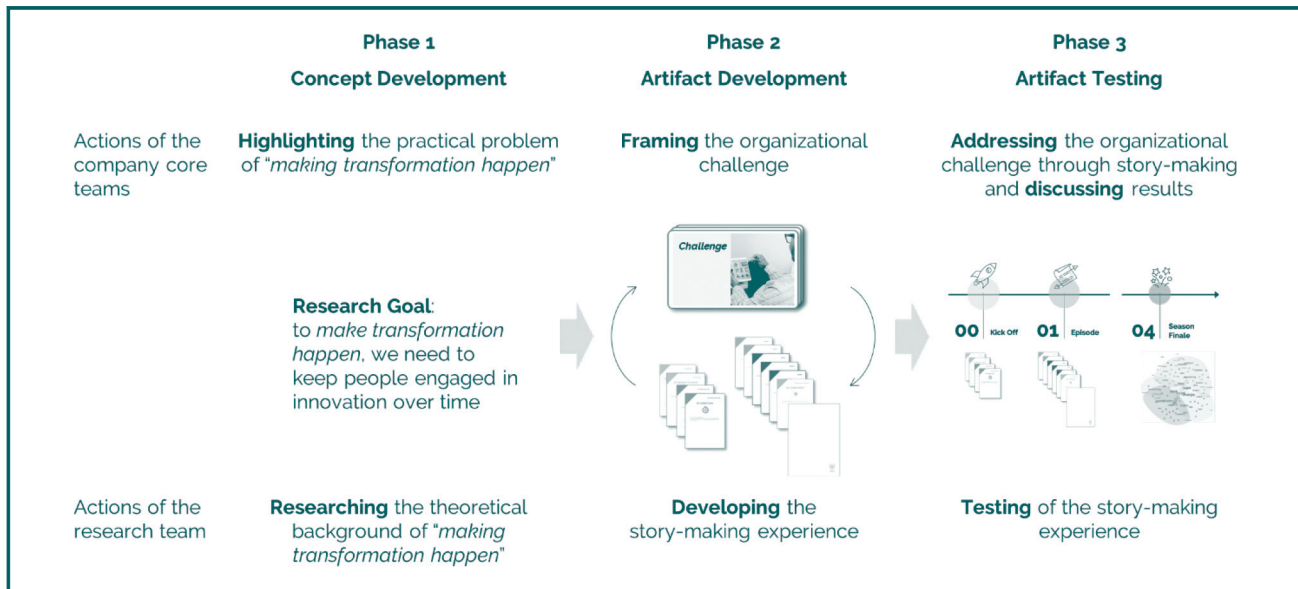
The initial idea of story-making was developed as a response to an organizational, theoretically relevant problem, which was identified with the help of five companies (Phase 1). Then, the research team developed the details of the *story-making experience* while each organization framed their own challenge more in detail (Phase 2). Finally, the *story-making experience* artifact was implemented, tested and discussed by its' users and the research team (Phase 3). This process is represented in detail in [Figure 1](#).

Phase 1: concept development. This study is part of the second year of IDEaLs, lasting from September 2019 to September 2020. In the first phase, the research team defined the overarching research problem together with the core teams of managers.

Phase 2: artifact development. The second phase of the process consisted of two parallel activities: on the one hand, the organizations framed their challenge; on the other hand, the research team developed the artifact and tailored it to the evolving problem ([Figure 1](#)).

The artifact was developed over a series of iterations: first, research team and company core teams identified the aim of the artifact. Second, the research team developed the architecture of the experience internally before discussing it with the core team of each company independently. The researchers and a core team of managers for each company met on a regular basis for a period of six months (September 2019–February 2020). At least three meetings lasting approximately 1 h were held with each organization. In these meetings, the research team shared the progress and collected feedback on the *story-making experience*. Moreover, research team and core team collaboratively refined the organizational challenge which the organizations were facing. Each challenge represents an ongoing or upcoming organizational innovation

Figure 1 Three phases of the DSR approach to develop the story-making experience



project, well-known to the members of each organization but with the difficulty of bringing people on board.

Third, a preliminary version of the experience was developed and tested with a student sample in January 2020. After this preliminary version, the artifact improved following the feedback received to make it less redundant and clearer from a participant perspective. Fourth, a pilot was performed in February 2020 with one company. Another meeting was held in March 2020. All core teams and the research team discussed preliminary findings from the pilot application, which was considered successful and let us move to the artifact testing phase with all the companies involved in the study.

Phase 3: artifact testing. The third phase consisted of the evaluation of the story-making experience through a field study, to "monitor the usage of [the] artifact in multiple projects" (Hevner *et al.*, 2004: 86). In each company, we applied *story-making experience* to a specific challenge and discussed the results with the core-team of each company, and the participants in the field study.

All partner companies had defined in Phase 2 an innovation project, where they encountered difficulties in bringing people on board. The challenges are summarized in Table 2. In addition to the specific challenges, the managerial team provided participants with contextual information and the organizational values and opportunities to help orient their stories throughout the study. Participation in the study was voluntary but strongly encouraged through a call for action by the management team. Convenience sampling sacrifices significance in favor of willingness, which was essential to engage participants in the study itself and the reflection-in-action at the end of the process.

The study participants came from different organizational functions, levels and countries of origin, albeit balanced in gender (see Table 3). Of the 115 employees, 97 participated in all phases of the study, writing their personal transformation stories and responding to all the surveys.

For each company, the study lasted approximately three months and started with the presentation of the challenge by the management team. Thereafter, four collaborative sessions took place in which the *story-making experience* was administered. The whole

Table 3 Descriptive statistics of the companies and participants

Partner	Industry	Employees	Country of origin	No. of participants	Gender
Alpha	Commodities	10k–50k	Europe, Africa	20	50% female
Beta	Food and beverage	100k–500k	Worldwide	20	45% female
Gamma	Health care	100k–500k	Worldwide	20	45% female
Delta	Commodities	100k–500k	Italy	23	53% female
Epsilon	Health care	100k–500k	Switzerland, Italy	32	47% female

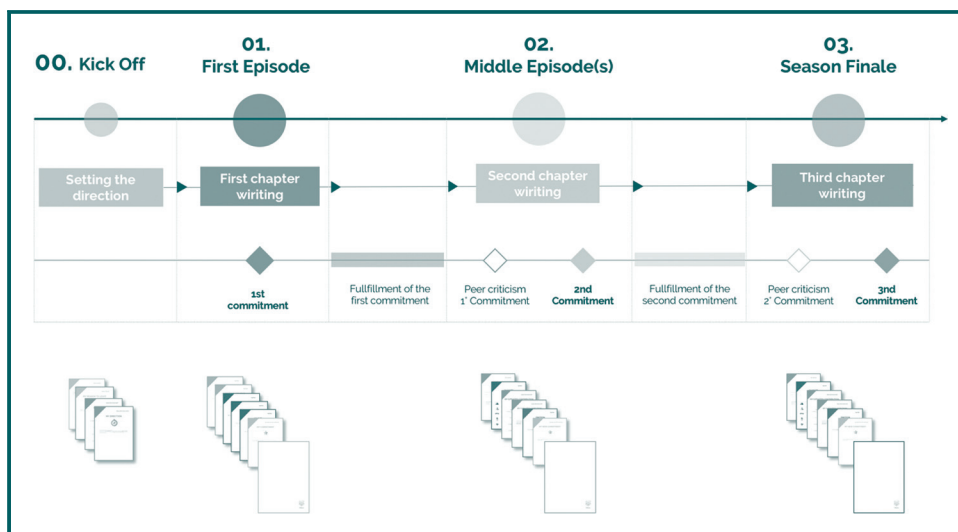
study was designed and administered in a digital environment, which enabled involving employees distributed around the globe (Asia, Europe, USA and Africa).

Finally, the findings gathered in each individual study were discussed collectively to gain insights on additional challenges that emerged during the projects and to critically assess the value of the story-making experience from a practical point of view. These final moments of collective reflection contributed to the trustworthiness of the results: after almost two months, we presented our findings to an audience to avoid the risk of “going naïve” (Gioia, Corley and Hamilton, 2013). In line with the reflective practice principle, the participants in the field study helped the researchers make sense of their experience (Schön, 1983; Sandberg and Tsoukas, 2020).

Artifact design: the story-making experience

After Phase 2, the *story-making experience* was administered in the same way to all participating organizations. The final artifact consists of a tangible element and a process (a series of workshops). Each participant is given a set of cards which facilitate the process (Figure 2). These cards are distributed in three workshops (episodes), a kickoff meeting and a season finale (a closing session). The episodes took place approximately two weeks apart. Average attrition rate was 0.04 from Episode 1 to Episode 2, and 0.09 from Episode 2 to Episode 3; attrition rate is highly variable (Goodman and Blum, 1996); thus, we consider the loss of merely 18 employees to be negligible for our study.

The workshops were presented to participants as episodes to help them understand they needed to create their own stories, differently from storytelling used as a communications tool (Martin, 2016).

Figure 2 Experiment flow and the card set

To facilitate the story-making experience, we developed a set of cards showing the necessary steps participants had to focus on in each workshop. The cards (see [Table 4](#) for a detailed description) acted as a design artifact, a means of sense-giving throughout the project ([Barry and Meisiek, 2010](#)). The cards included elements such as the definition of a *sacrificial moment* – as change might require sacrifice – or the selection of a *companion* – a colleague or friend they wanted to share their transformation path with. Throughout the process, participants used the cards as a canvas to make notes of their reflections before writing their stories at the end of each episode.

Table 4 Detailed description of the card-set supporting the story-making experience

<i>Cards</i>	<i>Statement</i>
My self	Organizational involvement allows individuals to reflect on their personal and social identity (Watson, 2008). Hence, stories should be based on personal experiences and interactions with peers (Hatch and Schultz, 2017)
My reason to leave	Motivation and aspiration affect individual tendency to change and innovate (Argote and Miron-Spektor, 2011). Hence, each individual story should identify a threshold moment to embrace the new call to adventure (Campbell, 1949)
My direction	When innovating, individuals should have a clear vision of where they are going (Perry-Smith and Mannucci, 2017). Hence, everyone should set a personal trajectory to envision how their story can fit into the overarching organizational direction (Denning, 2006)
My contribution	Innovation entails the innovative work behavior of introducing and applying new ideas (Janssen, 2000). Hence, stories should translate personal aspirations for transformation into concrete contributions (Bennis, 2000)
Obstacle	A successful approach to novelty requires resilience to negative events (Edmondson and Nembhard, 2009). Hence, every story should have a series of proofs to shape the transformation of individuals (Campbell, 1949)
Sacrificial moment	Innovation implies letting go of previous conceptions and meanings (Pratt and Foreman, 2000). Hence, stories should help accept giving up something dear to succeed in the journey (Campbell, 1949)
Companion	Innovation is easier to achieve in the intimate environment of pairs (Rouse, 2020). Hence, stories should support individuals in identifying an ally to accomplish their quest (Campbell, 1949)
Mentor	Transformational leadership fosters individual innovativeness (Jung et al., 2003). Hence, stories should support individuals in identifying an expert in the field to instruct, guide or lead them throughout their quest (Campbell, 1949)
Object	When novelty is created, it is necessary to transfer knowledge across boundaries (Carlile, 2002). Hence, stories should support individuals through a physical tool or artifact to be used during their quest (Campbell, 1949)
My commitment	A first step toward understanding an innovation opportunity requires taking action (Maitlis and Sonenshein, 2010). Hence, prospective stories should be progressively realized through small, concrete actions selected by individuals to commit to their goal
Enhancement	Constructive criticism can foster creative idea generation among peers in innovation (Verganti, 2016). Hence, stories should help individuals share knowledge and contribute to enriching the ideas of others (Bartel and Garud, 2009)
Criticism	Innovation is prospective but anchored in making sense of past events (Stigliani and Ravasi, 2012). Hence, intimate moments of self-perception help to reframe interpretation of the course of events and upcoming chapters (Cunliffe and Coupland, 2012)

Participants were further asked to commit to their stories by taking a first step. Taking concrete action provides a basis for understanding and revising the approach to a problem (Maitlis and Sonenshein, 2010) and the starting point to act new behaviors (Der Ven, 2011). Hence, in each episode, participants wrote down one action to take in the following weeks on a “commitment” card. We will refer to this concrete action as the personal commitment. In the following episode, they would reflect on their commitment and build on their experience to shape the next steps of their narrative. Throughout the study, participants worked alone, in pairs and in small groups (four to six participants) for critical feedback on their point of view (Bellis and Verganti, 2020). Allowing individuals to work in small groups before sharing their reflections in a larger constellation helps to build awareness and shared knowledge (Fine and Hallett, 2014). The groups were shuffled to ensure no subcultures would form among participants working closely together and share their perceptions and understanding.

Introducing the challenge: the kickoff. Each project started with a digital kickoff with two goals: presenting the organizational challenge to participants and introducing the digital software (Miro) used throughout the story-making experience.

At the kickoff, participants were given information in a digital online session about an upcoming innovation project by the managerial core team, comprising the contextual and strategic factors leading to the decision to undertake the project. All participants had previously been informed about the innovation project but not their detailed role in it. No specific information was provided on how the participant’s work would be impacted, but they were given a question to think about how they would react to the change.

The kickoff was shared in a virtual session and lasted approximately 2 h, in which participants had the opportunity to clarify any doubts concerning the forthcoming transformation process. Thereafter, participants were invited to start reflecting on the challenge and formulating their expected response. Each participant was given the necessary cards to reflect on the reasons to take part in the project and how the transformation would impact their identity.

Story-making through conception: Episode 1. Two weeks after kickoff, the first actual story-making episode took place. The goal of this first episode was to individually develop a draft of the transformation story, share it with the group and make a concrete commitment for the transformation to happen.

This episode lasted approximately 4 h and began with the management team reminding the participants about the challenge and gradually providing them with the full set of cards to reflect on their transformation journey. First, the participants designed their transformation story choosing the cards that best reflected the envisioned future. Next, they made a commitment to take action, a concrete and measurable objective to pursue by the next session and a first step to making transformation happen. After these individual activities, the story was shared first in the more intimate pair environment (Bellis and Verganti, 2020), and then discussed in the larger group environment. Hence, each individual transformation story would become part of collective understanding, demonstrating that organizational transformation consists of multiple individual narratives.

Story-making through iterations: Episodes 2–3. In the subsequent two episodes of the story-making experience, participants critically reflected on their past experiences and adapted their future path accordingly (Verganti, 2016). The aim of these episodes was to help participants make of the changes in their stories and revise their development going forward. Both episodes were performed in small groups of four to six participants to enable a more intimate discussion (Bellis and Verganti, 2020). Groups changed between episodes one, two and three to allow the cross-pollination of ideas.

These two episodes lasted approximately 2 h and were similarly designed. At the beginning of each workshop, participants would reflect on the commitment made in the previous

episode to help anchor the next steps of their story in past actions. Participants were asked to reflect both on the fulfillment of their commitment and the causes that led to the outcome. Thereafter, cards were provided to reflect on elements of the story defined in the previous episode. In other words, participants were encouraged to reflect on whether the previously defined direction was still relevant, and whether changes needed to be made to elements of the story in relation to colleagues, mentors and potential obstacles.

Story-making through reflection: season finale. In the season finale (the closing session to critically reflect on the results of the transformation stories), participants shared the guiding principles of the story-making experience that would enable pursuing the experience beyond the workshops. As the overall aim was to make innovation happen, this final session was an important part of the experience.

The season finale lasted approximately 2 h, in which the preliminary results were shared with participants, followed by an exchange on the relevant guiding principles. The findings of each specific organization were then discussed in terms of fulfillment of the commitment patterns and story content, with each management team helping to interpret the findings.

Data collection

Throughout the field study, we collected diverse data, both qualitative in the form of written stories, cards and handwritten notes as described in [Table 5](#), and quantitative in the form of the surveys administered after each story-making episode.

We analyzed the different data adopting a mixed-methods approach, generally defined as: “The class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study” ([Johnson and Onwuegbuzie, 2004](#), p. 17).

Mixed methods are increasingly gaining scholarly attention in social sciences research, particularly in the context of action research or design-based research ([Anderson and Shattuck, 2012](#)). In its most common form, the methodology is aimed at obtaining additional data on the phenomenon under study through triangulation ([Johnson and Onwuegbuzie, 2004](#)). However, the potential of mixed-methods research is far broader, ranging from the diversification of perspectives to corroboration and validation ([Venkatesh et al., 2013](#)). In the present study, the application of mixed-methods allowed the research team to go beyond the surface-level effect of measuring engagement to understand the extent to which the story-making experience captured actual changes in behaviors.

While mixed methods combine qualitative and quantitative research to help researchers answer the research question ([Johnson and Onwuegbuzie, 2004](#); [Venkatesh et al., 2013](#)), researchers point out that in conducting mixed-methods research, a compelling reason is needed to mix multiple approaches. In our case, this methodology allowed developing the story-making approach with more breadth and depth, adding meaning through words, pictures and narratives ([Johnson and Onwuegbuzie, 2004](#)).

Measures. At Times 1, 2 and 3, participants in the study self-assessed the fulfillment of their commitment, and the actions they had promised to take in $T - 1$.

As mentioned, the story-making experience was aimed at fostering emotional and physical engagement in change. Hence, we designed a *commitment* card through which each participant committed to one specific action prior to the subsequent episode. In the subsequent episode, the fulfillment of the commitment was assessed through a single question, “To what extent did I fulfil my commitment?” measured on a five-point scale ranging from not at all (1) to completely (5). To overcome problems associated with a single-item measure, the data collected included a qualitative assessment of the reasons behind incomplete fulfillment. Each comment consisted of a brief descriptive text that was transcribed and coded ([Corbin and Strauss, 2008](#)). Initially, two researchers coded 1/3 of

Table 5 Data sources

<i>Data sources</i>	<i>Use in the research</i>
<i>IDeaLs research meetings</i> Platform-level sessions Four research meetings 18 h	These research meetings helped ensure coherence among the different projects and the overall research platform design, allowing an initial development of the research objectives, their control during project execution and conclusive critical reflection
<i>Setup meetings</i> Core management team 15 meetings (roughly three per company) 15 h	In the initial phases of each experiment, several meetings were conducted with the managerial team of each organization to identify the challenges and frame them in a story setting. The meetings lasted around 60 min, and questions in this initial phase related to the context and project aim
<i>Main workshops (Episodes)</i> Story-making sessions 65 workshop sessions 140 h	During the data analysis phase, the transcriptions of the recordings were analyzed to look for recurring behaviors among participants. In particular, we observed the reactions to how individual transformation stories were shared, and how the subgroups of participants collaborated in finding common themes in their stories. The kickoff and closing sessions were helpful to observe interactions among the participants and the core management team, addressing doubts on the challenges or organizational opportunities. The closing session (season finale) contributed to a critical reflection on the methodology
<i>Additional workshops: kickoff and season finale sessions</i> Ten sessions 30 h	The kickoff and closing sessions were helpful to observe interactions among the participants and the core management team, addressing doubts on the challenges or organizational opportunities. The closing session (season finale) contributed to a critical reflection on the methodology
<i>Transformation stories</i> Personal transformation stories First episode: 111 pages Second episode: 107 pages Third episode: 100 pages Story-coach card set First episode: 1,130 cards Second episode: 430 cards Third episode: 475 cards	The analysis of written stories provided the opportunity to understand the content of the transformation outlined both at the individual and the collective level, as well as how the idea of transformation evolved over time In addition to the stories, the cards highlighted the raw reflections of participants. The cards were unstructured, used as a canvas and contained the participants' notes throughout the episodes
<i>Surveys</i> Engagement 415 data points	At the end of each episode, the engagement of participants in the challenge was assessed to track the ability of the story-making experience to keep participants engaged
Commitment 304 data points	At the beginning of each episode, the fulfillment of commitments was assessed to track the physical efforts of participants and support the sensemaking of past actions. The comments were analyzed qualitatively to inform on the types of actions story-making spurred

the "commitment" cards. Then, the researchers discussed their codes and converged on three categories of commitments. Then, they coded the remaining part of the cards. In case of disagreement, a third researcher was involved in a discussion until total agreement was reached. Fulfillment of the "commitment" card was measured approximately one week after each story-making episode at Times 2, 3 and 4.

Findings

Due to the complexity of the research project, we divide the findings into two main sections. First, we detail the evolution of the stories over the episodes and the content of the transformation stories the participants created, providing an empirical answer to the first research question. Second, we assess the commitments participants made over time and their degree of fulfillment, providing empirical evidence to the second research question.

Evolution of the story over episodes

The stories that emerged from the participants' journeys brought to light different and insightful patterns, showing that personal transformation toward an organizational direction is triggered by writing a prospective story of change. In particular, the analysis of the stories led to identifying three main levels of analysis used to read the participants' stories: *semantic*, *abstract* and *narrative*. The observation of these levels – intertwined in the natural flow of stories – allowed us to understand how the participants dealt with the new scenarios over time.

The first *semantic* level reflects how the writer constructs meaning in relation to the sociocultural context. Relying on the conception of words as fundamental social constructs that humans collectively create and share, we observed some key topics present in the *sum of all stories* but progressively associated with different concepts over time. For instance, in company Beta, the “people” topic emerged predominantly but changed depending on the course of action. In the first episode, it was attributed to the concept of innovative leaders; in the second, to the professional role and skills to be activated for change; and finally, to the project team. Similarly, participants progressively articulated the “work” topic, conceived first as the contextual work environment, then interpreted as the effort to spark innovation and build consensus to ultimately mobilize actions and behaviors. Interesting to note is that the design of prospective stories merged with the pragmatic nature of story-making, allowing participants to further elaborate the interpretation of emerging concepts according to their application in a real context.

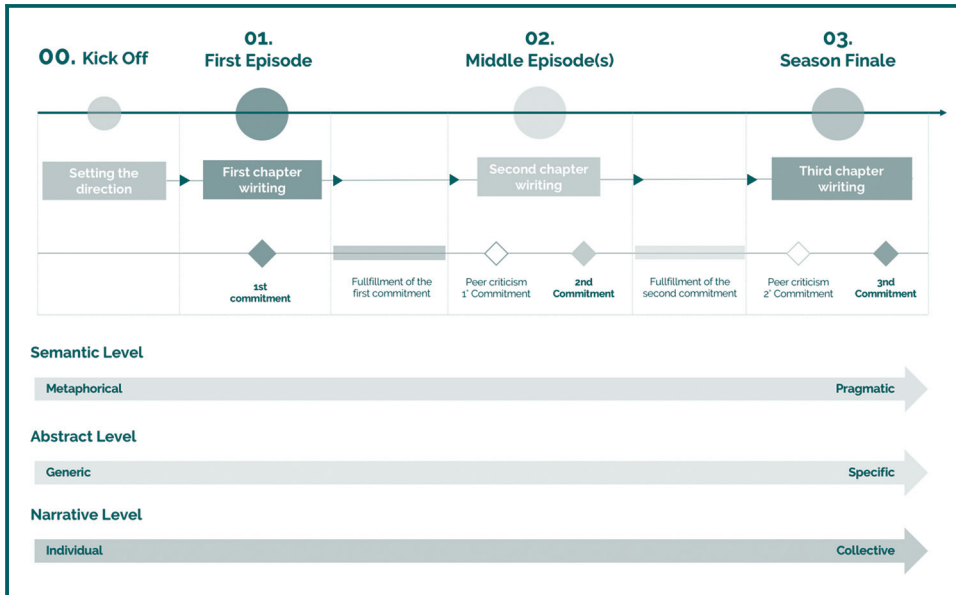
Then, focusing on the *abstract* level, we observed that words used in stories ranged from general to specific over the episodes. Surprisingly, in the first episode, participants used more open terms in building their story, focusing predominantly on the general objective of change and the need to transform. Broader and abstract keywords such as “innovation,” “change” or “need” allowed participants to plan their desired path and include uncertain and, therefore, unmanageable elements in their stories. In moving forward and experiencing the factual dimension of story-making, participants' attention shifted from their desired objective to identifying ways to achieve it. In this regard, more specific terms such as “commitment,” “project” and “activity” were used to determine how to tangibly address change. Therefore, the use of story-making helped participants continuously reframe their desired transformation in light of the contextual elements by adapting their storylines to unexpected barriers and breaking down broader goals into smaller actions.

Finally, the *narrative* level allowed us to observe a shift in participants' perspectives, moving from an individual to a collective viewpoint in their stories. The majority of stories indicated that participants initially resisted the organizational direction in their work environment, then either identifying potential aspects on which to act or forging novel linkages. In starting to act, relations with people and goals became more important as a means to mobilize change by building consensus around it. Finally, the shift in narrative lay in the collective dimension – leading teams to collaborate, launching shared projects, involving new stakeholders – to really start to make change happen. Interesting to note is that participants used the stories as a reflective tool, triggering awareness of their role and synergies with others to accelerate change.

[Figure 3](#) summarizes the main evolutions according to the three levels, while [Figure 4](#) illustrates the most cited keywords in the participants' stories across the three episodes, while [Table 6](#) highlights the qualitative findings coded according to the three aforementioned levels driving the evolution of the stories.

As further evidence and to exemplify the process, we next cite different excerpts from one participant's story to show how the semantic, abstract and narrative levels intertwined over the three episodes. The first excerpt of Andrew's story is the following:

Figure 3 Evolution of the change process at the different levels



One year ago, I decided to transform in a positive way *to innovate myself*. [...] Until then, I mainly worked frenetically and had no time or dedication for *bold steps, moves or thoughts*. Thinking metaphorically, my company was a *plant*, while my actions would be the nutrients and the water to let it grow. Yes, I would be a small drop, but still contributing to allow it to live.

We particularly note the key emerging concept of *bold actions*, identified as generic steps to allow the company to grow. The language is metaphoric and abstract, narrated in the first person to capture topics not yet clear in the protagonist's mind. "[...] I wanted to embody my team's vision in our projects, hoping that my effort would be of inspiration to others. Therefore, I committed to acting bravely and being *bold* in the *future*."

Unfortunately, Andrew's commitment at the end of the first episode was not fulfilled as successfully as he had hoped. First, the small action he identified was too vague, and his intentions came up against a crucial obstacle: his colleagues' resistance to change. Hence, in the second episode, Andrew reframed the evolution of his story, with more specific language according to what he had learned over the previous weeks.

Last time, I committed to acting bravely to become an enabler of future growth. Further down the line, I encountered the obstacles of people not believing in the story or being defensive, so I stopped speeding, stepped back, and thought about *how to join forces with my teammates*.

The difficulties Andrew previously faced led him to figure out how to include his peers in his story of change, broadening the narrative. At the same time, the *bold actions* topic, contextualized in the team setting, was interpreted differently and in a more realistic way:

I discovered that it is important to be empathic with each other for a *diverse group of people* to believe in the change. [...] What if a number of small drops could coalesce so as to have a greater impact? *Actions shared by many* are stronger than individual bold actions. [...]

The concept of *actions shared by many* emerged as an engaging element for Andrew, to the point that he chose a different commitment to be fulfilled by the third episode.

Figure 4 Aggregation of the most frequently cited keywords in the stories by company



We would present *the new team vision jointly* in many large meetings, open to those willing to be part of it. [...] A new tree – our team tree – had been planted and the new branches started growing.

Finally, in the third episode, the three levels slightly changed, confirming the evolution of the past episodes. From a semantic level, the *bold actions* topic, which evolved into *actions shared by many* in the second episode, was further articulated in *courageous collective actions*, while a more choral narrative was definitively chosen as the most compelling. Moreover, the words used to describe the innovative activities were further refined, using more precise language and clarifying some previously expressed concepts.

[...] This gave us the pace and the confidence to move on. I was quite surprised that having built meaningful relationships gave us the *courage to act together* as a team. [...] *We needed a plan and a team playbook* [...] to list all the games and rituals to get various stakeholders on board and create a chance for them to contribute on their side.

In conclusion, this example shows that the semantic, abstract and narrative levels, albeit intersecting, evolved as the participant pursued his own transformation. Indeed, the *bold actions* topic semantically changed from the first episode in light of the team setting, integrating the concept of cooperation and shared confidence. Similarly, the narrative shifted from the individual to the choral level as a necessary step to make change happen.

Table 6 Excerpts from participants' stories coded according to the three main analysis levels

Analysis level	Episode 1	Episode 2	Episode 3
Semantic (Evolving concepts according to context)	<p>"What seems the simplest thing is actually very difficult: <i>Communicating</i> ...</p> <p>However, my aim is to <i>make people</i> in the headquarters <i>aware</i> of the activities of a power plant and vice versa, through the values that the company conveys to us ..."</p> <p>"As an <i>innovative</i> leader, I think that taking care of my team is a first daily duty ... We have to inspire others to <i>spark discussion</i> and find <i>breakthrough ideas</i> ..."</p>	<p>"... I will try to <i>transfer my knowledge</i> about what I <i>have learned</i> and to have more and more opportunities to <i>grow and improve</i>"</p> <p>"... I understood I have to change my approach by <i>making ample time</i> for <i>innovation</i> and constantly <i>be in touch</i> with coaches for guidelines and guidance"</p>	<p>"... The story starts again by setting the goal of "<i>communicating</i>" as a way to <i>dedicate time</i> to my colleagues each day so that it becomes a <i>habit</i> and is realized every day in its own time"</p> <p>"... <i>helping others to innovate</i> thanks to my experience of life. This was a game changer! Acting as a catalyst to empower the team and colleagues ..."</p>
Abstract (From general to specific)	<p>"So, I committed myself to "<i>thinking more outside the box</i>" and <i>trust my initial personal feelings</i>. This job just started and is far from finished ..."</p> <p>"... I wanted my company to undertake a <i>digital revolution</i> ... The main objective was to automatize the main flows of the process ... in order to really <i>innovate and become efficient</i> and truly <i>competitive</i>"</p>	<p>"... I had no true bells on it [the previous commitment]. What was wrong? ... I made a new, more concrete commitment to look at the customer satisfaction process by talking with colleagues (manager), and eventually with another manager with global responsibility to see our "state-of-the-art" and look for references"</p> <p>"... looking back, I realized that the target I had set myself was a bit too far-reaching, and perhaps even too general ... I focused on the necessary steps to automatize the process of the project ..."</p> <p>"... the pursuit for change is never perfect and I just need to build the courage to fail. ... I told ... about my struggles and I definitely felt less alone in my journey"</p> <p>"... And therefore I took more time for myself – to craft first my personal statement to get self-clarity – to give myself the tools to enable and inspire others in an effective way – to inspire others – to ripple outwards ..."</p>	<p>"It was easier than I expected [the committed tasks]. Therefore, my new commitment is to <i>narrow further</i> by <i>adding one or two interviews</i> with colleagues and then <i>organizing the material</i> and ideas collected in a form that can be easily communicated to all stakeholders ..."</p> <p>"... During the development of the project itself, I realized how important it was to have <i>all activities under control: tools, functionalities, and operative tasks</i> to be fulfilled. Initially, I set myself <i>work objectives</i> that were <i>too general</i> and therefore <i>difficult to achieve</i>"</p> <p>"... Well, maybe instead of letting go of my perfectionist expectations and <i>doing the task alone</i>, I should just <i>get everyone involved</i> in building an <i>embellished fantastic box together</i> AND delivering it by Friday!"</p> <p>"This involved operating across two different levels – on one level, <i>leading and enabling my program team</i> – on the other level to <i>inspire and lead</i> the brand design direction across other <i>programs and teams</i>. ..."</p>
Narrative (From individual to collective)	<p>"I wanted to learn everything and do everything, just like the <i>perfect student</i>! I was but there simply wasn't enough time. Wanting to do everything perfectly is my fatal flow: it's too time consuming! ..."</p> <p>"... I have created the enabling conditions, so I can become <i>more fluid</i> and move easily across <i>different levels</i> and in different landscapes. ..."</p>	<p>"... the pursuit for change is never perfect and I just need to build the courage to fail. ... I told ... about my struggles and I definitely felt less alone in my journey"</p> <p>"... And therefore I took more time for myself – to craft first my personal statement to get self-clarity – to give myself the tools to enable and inspire others in an effective way – to inspire others – to ripple outwards ..."</p>	<p>"... Well, maybe instead of letting go of my perfectionist expectations and <i>doing the task alone</i>, I should just <i>get everyone involved</i> in building an <i>embellished fantastic box together</i> AND delivering it by Friday!"</p> <p>"This involved operating across two different levels – on one level, <i>leading and enabling my program team</i> – on the other level to <i>inspire and lead</i> the brand design direction across other <i>programs and teams</i>. ..."</p>

Finally, the abstract and metaphorical language Andrew used in the first episode gave way to more practical and concrete wording, identifying tools and activities to support the transformation.

Given the low generalizability of a single story, on top of the excerpts presented in the previous table, we also report the longitudinal excerpts from three other individual stories in [Table 7](#).

Overview of the commitments made

At the end of each episode, participants made a commitment, a short-term goal to be accomplished by the next episode aimed at propelling participants toward their personal direction of change. Each participant wrote their commitment on a specific card, constituting the input for our analysis.

Across the five companies and the three episodes, we collect a total of 330 observations. We eliminated any missing or invalid responses from the data set (some participants left halfway through or did not explicitly make a commitment in all episodes). Thus, our final database consists of 304 observations. Through in-vivo coding, we identified three main categories into which we clustered all the commitments:

1. *I do*: This category includes all the participants' commitments dedicated to doing something new compared to their normal routine; or embrace things in a different way, in other words, taking specific actions toward their personal change direction. Some examples are:

Do something innovative in a project that pushes the boundaries of 'what we always do'. Back it up with research, thoroughly document your process, and present it in a way that is simple and compelling.

I will purposefully pilot, measure, and document one small change in one project where I can demonstrate (short term) the benefit of such approach. I will ask for feedback from the people I will be working with on this so I can further adjust and use it as proof (credibility) for a broader audience so that they can also use it in their change journey. (bottom-up organizational change)

1. *I learn*: This category includes all those commitments aimed at learning something new to embrace their personal change direction. Some examples are:

I will learn an innovative technique within the next 3 weeks and implement learning at work!

I will look for courses and webinars on digital transformation within my industry.

1. *I involve*: This category includes all the commitments of participants perceiving the need to actively engage someone in their own transformation journey. In some cases, they sought a single person, in other cases, a group. At times, they specifically involved their companion or mentor, at other times, diverse categories of stakeholders (e.g., colleagues, suppliers, clients). Some examples are:

Find an ambassador and together create a workshop and share it via the academy:

1. I will share the current state with a bigger group of specialists to obtain their feedback and contribution for missing parts (prototyping remotely);
2. I will start to find people that want to be part of the DT team even if the full schedule is not ready; and
3. I will do a dry run with my colleague to see if our schedule works.

Table 7 Other individual stories

<i>Participant's name (Company)</i>	<i>Episode 1</i>	<i>Episode 2</i>	<i>Episode 3</i>
Robert (Alpha)	<p>"One year ago, I embarked into a great journey to become an <i>innovative catalyst</i> in the company. . . .</p> <p>I wanted to become the person that is able to <i>guide people</i> in the team with different vertical capabilities to <i>collaborate</i> better together. This could <i>foster growth</i> by embracing everyone's peculiarities. . . .</p> <p>"That's why I committed into <i>proposing this idea</i> to M, my manager"</p> <p>"It was now or never. There's always something that will let you postpone what is important, but that was the moment. I wanted to effectively work to become an <i>innovative leader</i>. The problem? I did not know how . . ."</p> <p>"My team is composed of <i>talented people</i> and we the company already proposes mentorship programs to who wants to boost their career. . . ."</p> <p>"I committed into this journey with my <i>passion</i>. I just wanted to offer it to my people to <i>act</i> as an enabler of <i>innovation</i>"</p> <p>"Out of sheer curiosity I decided to well-acquaint myself with <i>modularity principles</i> and as I dived deeper into this I started realising how much work needed to be done in living in a sustainable way"</p> <p>" . . . it is a matter of mindset. Agility asks for fluid collaboration among different stakeholders . . ."</p>	<p>" . . . I understood that it is important <i>not only to propose ideas</i>, but also show what is the <i>clear plan beyond</i> them to make them more <i>credible</i> and <i>concrete</i>"</p> <p>"I decided to <i>partner with my colleague A</i>, to refine the proposal to the management team"</p> <p>" . . . we had a set of <i>important</i> deliveries and I <i>did not have time to focus</i> on what I committed into last month"</p> <p>"It was an alarm. That was a priority for sure, but I did not make time for that and it just <i>slipped out of my mind</i>"</p> <p>"I decided to have a <i>conversation</i> with one of my <i>team</i> to understand how things were going"</p> <p>"After some pondering I realised this is the <i>work of a team</i> but the <i>team does not yet exist</i>"</p> <p>"Since these activities were not on <i>anyone's priority</i> least we decided to have a weekly meeting to ensure the said parties were making time in their <i>busy schedules</i>"</p>	<p>" . . . I felt more confident during the transformation because <i>I was not alone</i>"</p> <p>" . . . change is hard and time consuming. You are just a drop, but <i>engaging others</i> into your journey can become a true game changer for moving things for real"</p> <p>" . . . I felt reinvigorated. We set up a <i>series of meetings</i> to keep <i>monitoring her advancements</i>"</p> <p>" . . . as a leader, I need to get rid of my <i>perfectionism</i> on myself, <i>prototyping</i> things out.</p> <p>They are just small steps, but looking behind I'll see a road already passed by"</p> <p>" . . . the team and supplier could identify further opportunities as need arose and inspiration enabled"</p> <p>"It was a small achievement but I'm more confident to keep setting this small milestones towards a modularity approach"</p>
Nada (Beta)			
Yael (Gamma)			

Once we coded all the commitments into the three categories, we proceeded to analyzing how these commitments were distributed in the different episodes and how they evolved over time. Figure 5 and Table 8 provide the details of this analysis.

Interesting to note is that all three types of commitments took place across the different episodes. However, while the commitments labeled “I do” are the most relevant and stable over time, those labeled “I learn” tended to diminish consistently in favor of those related to “I involve”. Three main findings derive. First, most participants actively changed their way of doing things. Second, to embrace change, some participants perceived the need to learn something and acquire new knowledge. However, this need decreased as people passed through the different episodes and started making sense of the change and understanding how to actively embrace it. Third, change is not something people take on alone. The percentage of commitments where participants actively engaged someone else in their transformation journey increased over the episodes.

The average completion rate was similar across all the commitment categories and episodes, as summarized in Table 9. Interestingly, overall, the fulfillment rate gradually grew from Episode 1 to Episode 3, suggesting that over the episodes, participants become more confident with the change process and more able to successfully fulfill their personal commitments.

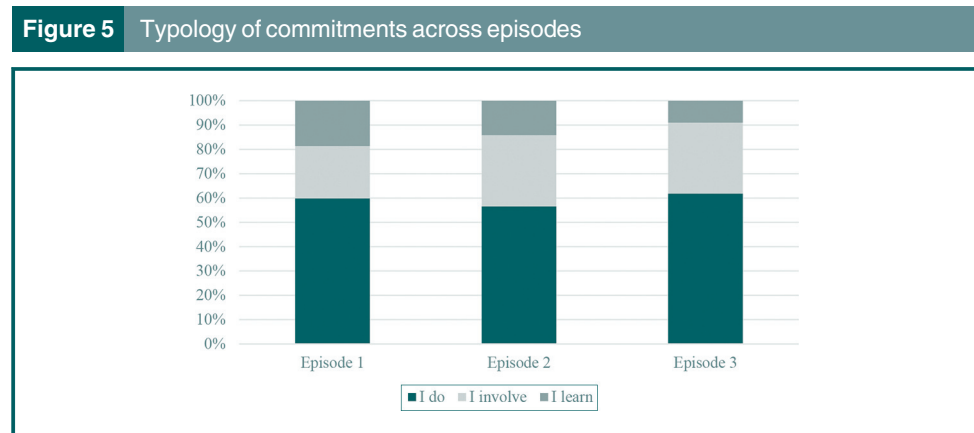


Table 8 Distribution of commitment types by episode

Episode	I do (%)	I involve (%)	I learn (%)
Episode 1	59.80	21.57	18.63
Episode 2	56.57	29.29	14.14
Episode 3	61.80	29.21	8.99

Table 9 Fulfillment of commitments by episode

Episode	I do Average completion rate	I involve Average completion rate	I learn Average completion rate	Total Average completion rate
Episode 1	3.09	3.21	3.00	3.10
Episode 2	3.35	3.14	2.75	3.17
Episode 3	3.20	3.17	3.20	3.19

This indicates that story-making provides not only a way to engage in the organizational challenge but transforms engagement into action as participants physically take on the challenge and set a course to respond to it.

Discussion

This research aims to understand the dynamics of story-making at the individual level to embrace change within an organizational transformation by generating shared and individual knowledge. This paper has important implications for the study of the use of stories in organizations (Foroughi, 2020; van Hulst and Ybema, 2020; Abolafia, 2010; Denning, 2008). Much of the existing literature focuses on how stories can be used as persuasion tool for internal and external stakeholders (Anteby and Molnár, 2012; Foster et al., 2011; Hatch and Schultz, 2017; Rowlinson et al., 2010), especially to present future trajectories and change (Nissley and Casey, 2002). Much of previous research focuses on stories as a top-down tool aiming to communicate, convince (Klein, 2005; Denning, 2008; Weinpress et al., 2018) and enhance organizational legitimacy. Therefore, most studies view the storyteller as the central figure compared to the listener, who is considered a passive receiver of a precreated view of the change (Gabriel, 2000; Collins and Rainwater, 2005). Moreover, most prior research deals with stories of a historic-rhetoric nature with the goal of fostering positive behaviors or attitudes in the future (Collins and Rainwater, 2005; Foroughi, 2020). Nevertheless, recent studies have called for different approaches that give an active role to receivers (Collins and Rainwater, 2005; Buchanan and Dawson, 2007), highlighting the need for many organizational stories from an individual perspective (Tsoukas, 2005; Buchanan and Dawson, 2007; Reissner, 2011). Our research responds to these calls by exploring whether writing a personal prospective story of change can engage the writer in the transformation processes.

Taking a different perspective on organizational stories, we corroborate some of the attributes that prior research has identified. Coherently, during change processes linked to organizational transformations, people tend to perceive a disruptive effect on their organizational life (Balogun and Johnson, 2004; Bartunek et al., 2006). Storytelling helps individuals make sense of these changes (Nissley and Casey, 2002), which is extremely relevant, but may not be enough. Our results show that using a story-making approach enables not only sensemaking (Weick, 1995; Stigliani and Ravasi, 2012) but also taking an active part in the change. To go more in depth in the discussion of our results, the remaining of the section is divided into two parts to provide an answer to the two research questions, first digging into how the act of writing a prospective story of change facilitates the sensemaking of the change required and then focusing on to understand the dynamics of story-making at the individual level to embrace change within an organizational transformation.

Story-making as a sensemaking tool: the role of time, criticism and iterations

Collective sensemaking is a process highly studied in previous literature, where various microphases have been highlighted (Stigliani and Ravasi, 2012). Recent studies pointed out how sensemaking of transformation processes requires both individual and collective reflections to familiarize with what is new and make sense of it by knowledge generation (Press et al., 2020, 2021). In this perspective, storytelling has often been used as a tool to facilitate individual sensemaking of a given transformation in an organization (Brown et al., 2009; Gabriel, 2000).

Moving from storytelling to story-making, our research is based on two significant differences: first, we performed a longitudinal study to give time and space to the participants to have the chance to embrace change in their behaviors, and at the same time, we had the chance to observe multiple stories of change within the same frame of

transformation. Indeed, our field study was designed to promote multiple interactions with participants, peers and the reiteration of the same mechanism through participants writing three episodes of their story while going through the process. Reading the results of our research through the lenses of previous studies, we can see how the time, the request of criticism and the iteration variables had a significant impact on the observed results.

In particular, one of the main limitations of the storytelling approach is the timespan of its effect. As with many change management tools, storytelling tends to have a strong impact in the short term and then gradually dissipates (Trabucchi *et al.*, 2020). A recent literature review shows how the vast majority of studies considered time in a retrospective way, as a way to make sense of what appended; nevertheless, there are emerging studies that support the usage of time in a prospective way (Dawson and Sykes, 2019). There are growing evidence on the power that thinking about the future can help people in familiarizing with it, helping them in reacting to possible future scenario (McGonigal, 2022).

The story-making is coherent with this prospective use of time, allowing users to think forward and act in the present or very near future. The experience gave us the chance to observe people over an average period of three months, asking them to go back to the analysis of their transformation story workshop after workshop. The analyses of the story presented in the Findings section let emerge how the sensemaking process evolved over the episodes. Going back to the *narrative* level of the previous analysis, the gradual movement from stories that deal with resistance to change to the need to mobilize other people to embrace the transformation is a key finding that needs a more theoretical discussion.

Going through a sensemaking cycle (Stigliani and Ravasi, 2012) for each episode, participants had the chance to go more in depth in what it means and why it is needed to go through the transformation process. This is expanding the contributions done by Press and colleagues (2020, 2021): it is not enough to move from an individual to a collective dimension and from learning to shaping. These changes need to happen repetitively. Change is not an activity that can take place instantaneously, and it needs time to be processed, absorbed and understood and the chance to use a longitudinal approach seem to have reached the expected results.

In this process, the chance to deal with other people – going through the same transformation process – played another relevant step. Peers play a significant role in transformation projects (Bellis and Verganti, 2020; Rouse, 2020), and a first critical discussion of the story in the process of being crafted helps make it stronger and more meaningful (Verganti, 2016). Telling the story to a peer in the search for validation has two effects. On the one hand, it forces participants to work on feasible stories to gain peer approval and understanding (Hunter, Cushenbery, and Jayne, 2017). On the other hand, discussing the stories with peers makes them really simple through the act of telling them (Rouse, 2020). Similarly, presenting the stories to others enables the cross-pollination of stories and engaging in a transformation that shows many different voices (Tsoukas, 2005), leading to community and the perception of going toward something new together.

The third and final design variable was the iteration of the story-making approach. Iteration underlies many recent managerial approaches, including agile, design thinking and valuing the opportunity to learn from failure (Dell'Era, Magistretti, Cautela, Verganti, and Zurlo, 2020). These elements were part of the study by way of a criticism card that – at the beginning of each episode – required thinking back to the previous part of the story, assessing the commitment made and making sense of it (Stigliani and Ravasi, 2012). Inspired by the agile world, this self-critical reflection has the main goal of refocusing the outcome of the transformation to committing to an action that is actually relevant rather than persisting in pursuing the wrong outcome. The impact of this variable, from a story-making perspective, was rather surprising. On the one hand, stories became increasingly tangible.

The iterations helped participants make sense of the transformation process (Stigliani and Ravasi, 2012), own it and move from abstract to more concrete actions.

Story-making as a tool to make transformation happen embracing new behaviors

One of the main consequences of the sensemaking process for listeners in a storytelling approach is fostering an emotional attachment toward the transformation process and the new direction (Klein, 2005; Denning, 2008). Story-making seems to have a similar effect while also crafting collective understanding (Buchanan and Dawson, 2007) by generating multiple stories that converge.

Our research on story-making supports some previous findings on storytelling, reinforcing the role of stories in organizations as a change management tool and challenging previous findings by expanding the role that stories might play in organizations. Further, our research demonstrates that story-making goes beyond the emotional level of engagement and leads to action. This is highly coherent with the two types of engagement that characterize the work of employees (Kahn, 1990), moving from purely emotional engagement in the first story writing activity to a clear focus on the physical dimension in the last iteration. Indeed, most stories in the last episode focused on making concrete actions that represent new behaviors toward the transformation.

Two key requirements of participants in our story-making experience were writing a prospective story of change and for each episode to include a concrete commitment to make the change happen. The outcome of first requirement was directly observable in the workshops: participants wrote their stories with the help of moderators managing the workshops. The outcome of the second requirement was less observable: participants committed to taking concrete action in the subsequent weeks, but no rewarding mechanisms or controls were in place. Moreover, participants could continue with the project even in the absence of fulfilling their previous commitment. Nevertheless, as the results show, this story-making approach led people to commit to concrete actions that actually took place. In other words, shifting from storytelling to story-making and giving participants an active role in the process enabled moving from emotional engagement (Gabriel, 2000; Buchanan and Dawson, 2007) to physical engagement (Kahn, 1990) or from the abstract and cognitive to the physical level.

This shows the impact that stories can have on facilitating the emergence of new behaviors.

Storytelling is based on the past, making it ideal and memorable (Roth and Kleiner, 1998). Story-making entails prospective stories in the context of change. In other words, the story-making approach creates, on purpose, an unbalanced dimension between the story writing (the planning of change) and its realization. This helps individuals to tell the story and bond together the ideal world she can think of with what she actually leaves. Therefore, the willingness to resolve the gap between the plan and what actually happens set the individual in motion – both in terms of reflections and in terms of behaviors – episode after episode. As it emerges from the findings and from the evolution of the stories over the episodes.

Finally, the literature points out the need for a multistory of change (Buchanan and Dawson, 2007; Reissner, 2011). Although our study did not involve the creation of one organizational story with many perspectives, it enabled the creation of collective individual stories that influence each other through the interaction of the writers. Similar patterns emerged throughout the episodes as the content of the stories evolved from an abstract level at the beginning to a more concrete level at the end of the study.

Our findings suggest that, in contrast to previous studies on stories in organizations, they are multilayered: stories deal with the planning of future behaviors, and the actual behaviors acted. What individuals imagine and live creates a tension that generates an urgency to reconnect these two layers. Moreover, stories are not frozen in time: they become “circular” and open through continuous reframing that evolves over time. In terms of the commitment

categories, we observed a slight increase in commitments related to taking action (I do) and peer involvement (I involve) over the episodes, namely, the physical dimension emerging over time. The data also show the highly coherent shift from abstract concepts in the first episode to concrete concepts in the final episode, highlighting that self-criticism helped participants make sense of the transformation and go forward in the same direction.

Conclusion

Based on the rich literature on stories in organizations, our study suggests the value of story-making – compared to traditional storytelling – to help organizations bring employees toward an organizational transformation. The main concerns of storytelling relate to its typical top-down nature and the passive role of listeners, imposing pregenerated knowledge. We have aimed to contribute to the storytelling literature by providing a perspective on the tangible impact of story-making by cogenerating shared knowledge.

We adhere to a DSR paradigm to develop an organizational artifact, the story-making experience, which promotes the active participation of employees in organizational transformation projects. We test the artifact through a field study in five multinational organizations part of IDEaLs research platform [...], and argue that story-making based on a prospective story of change is an effective tool to engage people and make transformation happen.

Taking a theoretical perspective, we can highlight two main contributions. On the one hand, the chance to move from storytelling to story-making let emerge a wider theoretical understanding of the sensemaking process of the individual in organizational transformation. In particular, the chance to go through the story-making experience let emerge the value of the longitudinal perspective of the activity, the iterative and collective nature of the experience. Indeed, the content of the individual stories written by the participants evolve over time, showing how their understanding of the challenge change. This has implications at the sensemaking level (Stigliani and Ravasi, 2012; Press *et al.*, 2021).

On the other hand, the analysis of the commitments taken let emerge the second contributions. Storytelling has been traditionally linked with emotional engagement, while story-making seems to have the power of activating physical engagement (Kahn, 1990). This is linked with the new behaviors that arise through the story-making experience and that helped the participants in actively changing. In other words, story-making enables individuals to effectively embrace change and make transformation happen rather than just understanding it.

From a managerial perspective, our study suggests that story-making can be used alongside storytelling to help people identify and embrace new behaviors that contribute to change as a change management tool. DSR does not guarantee, *per se*, a high level of generalizability, still, the chance to rely on a theoretical diverse sample (giving the different nature of challenges that the various organizations worked on), let us understand something more. Our research guarantees us to control for external validity as the same process was applied in the same way across all the companies. At the same time, enabled us to spot some differences among different companies enabling us to see different nuances of change. For example, whether the process was the same, the change faced by participants was different across all companies. We can cluster changes in two main groups: first-order and second-order changes (Blumenthal and Haspeslagh, 1994). The former refers to changes that requires people to learn incrementally new competencies and skills (Goodstein and Burke, 1991), while the latter are changes that aim to set a complete new set of value, norms and behaviors in the organizations (Pardo del Val and Fuentes, 2003). Companies Alpha, Beta and Epsilon, belong to the former cluster, while Gamma and Delta to the latter one. Different change contexts require participants to implement different behaviors. For instance, in participants involved in organization's second-order changes, commitments labeled as "I do" where the more frequent. While participants engaged in first-

order changes preferred commitments labeled as “I learn.” Interesting, the commitments taken are coherent with the change faced. An interesting case is the one of company Alpha. It seems to be an exception for the kind of challenge they give. The goal for participants was to understand how to use 10% of their time to foster innovation, enabling greater heterogeneity in the commitments. Even if these findings do not have statistical validity, they show how story-making is context independent enabling each company to pass through its change whatever it is and foster individual transformation without imposing any constraints but facilitating sensemaking activities and action.

The main practical contribution, therefore, is the story-making experience itself, the artifact created to apply the DSR approach. Indeed, this artifact and the overall story-making approach can be used by organizations to help people making sense of future changes or new innovative directions to be followed. On top of this, the managerial implications of this study can be extended at the individual level. What we are suggesting with this stool is to find the strength to take time to examine an evolving situation, creating a perspective image and cyclical discussing it. The overall artifact is meant to be used in a collective way to enhance criticism; nevertheless, it may be used as an inspiration for individuals to create perspective stories, taking commitments and looking for peers that may help activating a reflective process on what may emerge during the transformation process.

As in any study, especially when highly exploratory, ours is not free from limitations that also provide future research opportunities. While the development of story-making was informed by kernel theories in scientific literature and tested in real organizational settings, the generalization of the results requires further studies investigating a wider sample and the type of change at the center of the project. Coherently with the DSR approach, we worked with five companies that shared a common overarching problem – resistance toward various kinds of organizational transformations – that accepted to be part of our research by letting us to work closely with their employees. The heterogeneity of the companies involved, and the type of “challenges” proposed to the participants, show a good validity of the results. Nevertheless, future studies may explore the individual characteristics or the organizational factors that can enhance the type of experience presented in the study, possibly studying also those individuals that appear more resistant to change and less touched by this kind of approach. During our study, few people left the program – as showed with the attrition rate – mainly for time constraints, but it would be interesting to dig into the understanding of the individual characteristics that make this approach more or less suitable.

References

- Abolafia, M.Y. (2010), “Narrative construction as sensemaking: how a central bank thinks”, *Organization Studies*, Vol. 31 No. 3, pp. 349-367.
- Anderson, T. and Shattuck, J. (2012), “Design-based research: a decade of progress in education research?”, *Educational Researcher*, Vol. 41 No. 1, pp. 16-25.
- Anteby, M. and Molnár, V. (2012), “Collective memory meets organizational identity: remembering to forget in a firm’s rhetorical history”, *Academy of Management Journal*, Vol. 55 No. 3, pp. 515-540.
- Argote, L. and Miron-Spektor, E. (2011), “Organizational learning: from experience to knowledge”, *Organization Science*, Vol. 22 No. 5, pp. 1123-1137.
- Balogun, J. and Johnson, G. (2004), “Organizational restructuring and middle manager sensemaking”, *Academy of Management Journal*, Vol. 47 No. 4, pp. 523-549.
- Barry, D. and Elmes, M. (1997), “Strategy retold: toward a narrative view of strategic discourse”, *The Academy of Management Review*, Vol. 22 No. 2, pp. 429-452.
- Barry, D. and Meisiek, S. (2010), “Seeing more and seeing differently: sensemaking, mindfulness, and the workarts”, *Organization Studies*, Vol. 31 No. 11, pp. 1505-1530.
- Bartel, C.A. and Garud, R. (2009), “The role of narratives in sustaining organizational innovation”, *Organization Science*, Vol. 20 No. 1, pp. 107-117.

- Bartunek, J.M., Rousseau, D.M., Rudolph, J.W. and DePalma, J.A. (2006), "On the receiving end: sensemaking, emotion, and assessments of an organizational change initiated by others", *The Journal of Applied Behavioral Science*, Vol. 42 No. 2, pp. 182-206.
- Bellis, P. and Verganti, R. (2020), "Pairs as pivots of innovation: how collaborative sensemaking benefits from innovating in twos", *Innovation*, Vol. 23 No. 3, pp. 375-399.
- Bellis, P., Trabucchi, D., Buganza, T. and Verganti, R. (2022), "How do human relationships change in the digital environment after COVID-19 pandemic? The road towards agility", *European Journal of Innovation Management*, Vol. 25 No. 6.
- Bennis, W.G. (2000), "Managing the dream: reflections on leadership and change", *Basic Books*, p. 317.
- Bertrand, J., Brusset, X. and Chabot, M. (2021), "Protecting franchise chains against weather risk: a design science approach", *Journal of Business Research*, Vol. 125, pp. 187-200.
- Bhardwaj, M. and Monin, J. (2006), "Tacit to explicit: an interplay shaping organization knowledge", *Journal of Knowledge Management*, Vol. 10 No. 3, pp. 72-85.
- Birkinshaw, J., Healey, M.P., Suddaby, R. and Weber, K. (2014), "Debating the future of management research", *Journal of Management Studies*, Vol. 51 No. 1, pp. 38-55.
- Blumenthal, B. and Haspeslagh, P. (1994), "Toward a definition of corporate transformation", *MIT Sloan Management Review*, Vol. 35 No. 3, p. 101.
- Boje, D.M. (1991), "The story-telling organization: a study of story performance in an office-supply firm", *Administrative Science Quarterly*, Vol. 36 No. 1, pp. 106-126.
- Boje, D. M. (2001), "Narrative methods for organizational & communication research", *Narrative Methods for Organizational & Communication Research*, Sage, Newbury Park (California), pp. 1-160.
- Boje, D.M. (2003), "Using narrative and telling stories", *Management and Language: The Manager as a Practical Author*, pp. 41-53.
- Boyce, M.E. (1995), "Collective centring and collective sensemaking in the stories and story-telling of one organization", *Organization Studies*, Vol. 16 No. 1, pp. 107-137.
- Brands, K.M. and Elam, D. (2017), "Identifying teaching best practices for accounting courses using appreciative inquiry", *International Journal of Knowledge Management Studies*, Vol. 8 Nos 1/2, p. 54, doi: [10.1504/IJKMS.2017.084412](https://doi.org/10.1504/IJKMS.2017.084412).
- Brown, A.D. (2005), "Making sense of the collapse of barings bank", *Human Relations*, Vol. 58 No. 12, pp. 1579-1604.
- Brown, A.D. (2006), "A narrative approach to collective identities", *Journal of Management Studies*, Vol. 43 No. 4, pp. 731-753.
- Brown, J.S. and Duguid, P. (2001), "Knowledge and organization: a social-practice perspective", *Organization Science*, Vol. 12 No. 2, pp. 198-213.
- Brown, A.D., Gabriel, Y. and Gherardi, S. (2009), "Story-telling and change: an unfolding story", *Organization*, Vol. 16 No. 3, pp. 323-333.
- Bryant, M. and Cox, J.W. (2003), "The telling of violence", *Journal of Organizational Change Management*, Vol. 16 No. 5, pp. 567-583.
- Buchanan, D. and Dawson, P. (2007), "Discourse and audience: organizational change as multi-story process", *Journal of Management Studies*, Vol. 44 No. 5, pp. 669-686.
- Buganza, T., Bellis, P., Magnanini, S., Press, J., Shani, A.R.B., Trabucchi, D., Verganti, R. and Zasa, F.P. (2022), *Storymaking and Organizational Transformation: How the Co-Creation of Narratives Engages People for Innovation and Transformation*, Taylor and Francis, Milton Park (Oxfordshire).
- Carlile, P.R. (2002), "A pragmatic view of knowledge and boundaries: boundary objects in new product development", *Organization Science*, Vol. 13 No. 4, pp. 442-455+456.
- Campbell, J. (1949), *The Hero with a Thousand Faces*, Pantheon Books.
- Collatto, D.C., Dresch, A., Lacerda, D.P. and Bentz, I.G. (2018), "Is action design research indeed necessary? Analysis and synergies between action research and design science research", *Systemic Practice and Action Research*, Vol. 31 No. 3, pp. 239-267.

- Collins, D. and Rainwater, K. (2005), "Managing change at sears: a sideways look at a tale of corporate transformation", *Journal of Organizational Change Management*, Vol. 18 No. 1, pp. 16-30.
- Corbin, J. and Strauss, A. (2008), "Strategies for qualitative data analysis", *Basics of Qualitative Research. Techniques and Procedures for Developing Grounded Theory*, Vol. 3, p. 9781452230153.
- Cunliffe, A. and Coupland, C. (2012), "From hero to villain to hero: making experience sensible through embodied narrative sensemaking", *Human Relations*, Vol. 65 No. 1, pp. 63-88.
- Czarniawska, B. and Wolff, R. (1998), "Constructing new identities in established organization fields: young universities in old Europe", *International Studies of Management and Organization*, Vol. 28 No. 3, pp. 32-56.
- Dawson, P. and McLean, P. (2013), "Miners' tales: stories and the storytelling process for understanding the collective sensemaking of employees during contested change", *Group and Organization Management*, Vol. 38 No. 2, pp. 198-229.
- Dawson, P. and Sykes, C. (2019), "Concepts of time and temporality in the storytelling and sensemaking literatures: a review and critique", *International Journal of Management Reviews*, Vol. 21 No. 1, pp. 97-114.
- Dell'Era, C., Magistretti, S., Cautela, C., Verganti, R. and Zurlo, F. (2020), "Four kinds of design thinking: From ideating to making, engaging, and criticizing", *Creativity and Innovation Management*, Vol. 29, pp. 324-344, doi: [10.1111/caim.12353](https://doi.org/10.1111/caim.12353).
- Del Val, M.P. and Fuentes, C.M. (2003), "Resistance to change: a literature review and empirical study", *Management Decision*, Vol. 41 No. 2, pp. 148-155.
- Denning, S. (2008), "How leaders can use powerful narratives as change catalysts", *Strategy and Leadership*, Vol. 36 No. 2, pp. 11-5.
- Denning, S. (2006), "Effective storytelling: Strategic business narrative techniques", *Strategy & Leadership*, Vol. 34 No. 1, pp. 42-48.
- Der Ven, N.V. (2011), "The shame of reason in organizational change: a Levinasian perspective (Bevan, Trans. D.)", Springer, London.
- Dobusch, L., Köster, N., Schäfer, E. and Seckler, C. (2021), "Open about organizational failure: a communication perspective on postmortem impression management", *Long Range Planning*, p. 102176, (article in press).
- Edmondson, A.C. and Nembhard, I.M. (2009), "Product development and learning in project teams: the challenges are the benefits", *Journal of Product Innovation Management*, Vol. 26 No. 2, pp. 123-38.
- Enninga, T. and Lugt, R. V D (2016), "The innovation journey and the skipper of the raft: about the role of narratives in innovation project leadership", *Project Management Journal*, Vol. 47 No. 2, pp. 103-114.
- Fenton, C. and Langley, A. (2011), "Strategy as practice and the narrative turn", *Organization Studies*, Vol. 32 No. 9, pp. 1171-1196.
- Fine, G.A. and Hallett, T. (2014), "Group cultures and the everyday life of organizations: interaction orders and meso-analysis", *Organization Studies*, Vol. 35 No. 12, pp. 1773-1792.
- Foroughi, H. (2020), "Collective memories as a vehicle of fantasy and identification: founding stories retold", *Organization Studies*, Vol. 41 No. 10, pp. 1347-1367.
- Foster, W.M., Suddaby, R., Minkus, A. and Wiebe, E. (2011), "History as social memory assets: the example of Tim Hortons", *Management and Organizational History*, Vol. 6 No. 1, pp. 101-120.
- Fronza, Y. and Moriceau, J. (2008), "I am not your hero: change management and culture shocks in a public sector corporation", *Journal of Organizational Change Management*, Vol. 21 No. 5, pp. 589-609.
- Gabriel, Y. (2000), *Story-Telling in Organizations: Facts, Fictions, and Fantasies: Facts, Fictions, and Fantasies*, OUP Oxford, Oxford (England).
- Gardner, H.E. (2011), *Leading Minds: An Anatomy of Leadership*, Basic Books, New York (NY).
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. and Trow, M. (1994), *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*, Sage, London.
- Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2013), "Seeking qualitative rigor in inductive research: notes on the gioia methodology", *Organizational Research Methods*, Vol. 16 No. 1, pp. 15-31, doi: [10.1177/1094428112452151](https://doi.org/10.1177/1094428112452151).

- Goodman, J.S. and Blum, T.C. (1996), "Assessing the non-random sampling effects of subject attrition in longitudinal research", *Journal of Management*, Vol. 22 No. 4, pp. 627-652.
- Goodstein, L.D. and Burke, W.W. (1991), "Creating successful organization change", *Organizational Dynamics*, Vol. 19 No. 4, pp. 5-17.
- Gregor, S. and Hevner, A.R. (2013), "Positioning and presenting design science research for maximum impact", *MIS Quarterly*, Vol. 37 No. 2, pp. 337-355.
- Hatch, M.J. and Schultz, M. (2017), "Toward a theory of using history authentically: historicizing in the Carlsberg group", *Administrative Science Quarterly*, Vol. 62 No. 4, pp. 657-697.
- Heifetz, R.A. and Heifetz, R. (1994), *Leadership without Easy Answers*, Harvard University Press.
- Hevner, A.R., March, S.T., Park, J. and Ram, S. (2004), "Design science in information systems research", *MIS Quarterly: Management Information Systems*, Vol. 28 No. 1, pp. 75-105.
- Huang, K. and Ribeiro-Soriano, D.E. (2014), "Developmental management: theories, methods, and applications in entrepreneurship, innovation, and sensemaking", *Journal of Business Research*, Vol. 67 No. 5, pp. 657-662.
- Humphreys, M. and Brown, A.D. (2002), "Narratives of organizational identity and identification: a case study of hegemony and resistance", *Organization Studies*, Vol. 23 No. 3, pp. 421-447.
- Hunter, S.T., Cushenbery, L.D. and Jayne, B. (2017), "Why dual leaders will drive innovation: resolving the exploration and exploitation dilemma with a conservation of resources solution", *Journal of Organizational Behavior*, Vol. 38 No. 8, pp. 1183-1195, doi: [10.1002/job.2195](https://doi.org/10.1002/job.2195).
- Janssen, O. (2000), "Job demands, perceptions of effort-reward fairness and innovative work behaviour", *Journal of Occupational and Organizational Psychology*, Vol. 73 No. 3, pp. 287-302.
- Johnson, R.B. and Onwuegbuzie, A.J. (2004), "Mixed methods research: a research paradigm whose time has come", *Educational Researcher*, Vol. 33 No. 7, pp. 14-26.
- Jung, D.I., Chow, C. and Wu, A. (2003), "The role of transformational leadership in enhancing organizational innovation: hypotheses and some preliminary findings", *The Leadership Quarterly*, Vol. 14 Nos 4/5, pp. 525-544.
- Kahn, W.A. (1990), "Psychological conditions of personal engagement and disengagement at work", *Academy of Management Journal*, Vol. 33 No. 4, pp. 692-724.
- Klein, L. (2005), "Systemic inquiry – exploring organisations", *Kybernetes*, Vol. 34 Nos 3/4, pp. 439-447.
- Lenka, S., Parida, V., Sjödin, D.R. and Wincent, J. (2018), "Exploring the microfoundations of servitization: how individual actions overcome organizational resistance", *Journal of Business Research*, Vol. 88, pp. 328-336.
- Linde, C. (2001), "Narrative and social tacit knowledge", *Journal of Knowledge Management*, Vol. 5 No. 2, pp. 160-170.
- McGonigal, J. (2022), *Imaginable*, Spiegel and Grau, New York City (USA).
- Magistretti, S., Bianchi, M., Calabretta, G., Candi, M., Dell'Era, C., Stigliani, I. and Verganti, R. (2021), "Framing the multifaceted nature of design thinking in addressing different innovation purposes", *Long Range Planning*, Vol. 55 No. 5, p. 102163.
- Magnanini, S., Trabucchi, D., Buganza, T. and Verganti, R. (2022), "Collaborate as a flock in the organization: how selection and synthesis influence knowledge convergence within a complex adaptive system", *Journal of Knowledge Management*, 26. pp. 142-165.
- Magnanini, S., Trabucchi, D. and Verganti, R. (2021), "Convergence in innovation: the perception of synthesis in articulating a new strategic vision", *Innovation*, pp. 1-23, (article in press).
- Maitlis, S. and Christianson, M. (2014), "Sensemaking in organizations: taking stock and moving forward", *Academy of Management Annals*, Vol. 8 No. 1, pp. 57-125.
- Maitlis, S. and Sonenshein, S. (2010), "Sensemaking in crisis and change: inspiration and insights from Weick (1988)", *Journal of Management Studies*, Vol. 47 No. 3, pp. 551-580.
- Martin, S.R. (2016), "Stories about values and valuable stories: a field experiment of the power of narratives to shape newcomers' actions", *Academy of Management Journal*, Vol. 59 No. 5, pp. 1707-1724.
- Nissley, N. and Casey, A. (2002), "The politics of the exhibition: viewing corporate museums through the paradigmatic lens of organizational memory", *British Journal of Management*, Vol. 13 No. S2, pp. S35-45.

- Patriotta, G. (2003), "Sensemaking on the shop floor: narratives of knowledge in organizations", *Journal of Management Studies*, Vol. 40 No. 2, pp. 349-375.
- Peffer, K., Tuunanen, T., Rothenberger, M.A. and Chatterjee, S. (2007), "A design science research methodology for information systems research", *Journal of Management Information Systems*, Vol. 24 No. 3, pp. 45-77.
- Perry-Smith, J.E. and Mannucci, P.V. (2017), "From creativity to innovation: the social network drivers of the four phases of the idea journey", *Academy of Management Review*, Vol. 42 No. 1, pp. 53-79.
- Petrou, P., Demerouti, E. and Schaufeli, W.B. (2018), "Crafting the change: the role of employee job crafting behaviors for successful organizational change", *Journal of Management*, Vol. 44 No. 5, pp. 1766-1792.
- Pratt, M.G. and Foreman, P.O. (2000), "Classifying managerial responses to multiple organizational identities", *The Academy of Management Review*, Vol. 25 No. 1, pp. 18-42.
- Press, J., Bellis, P., Buganza, T., Magnanini, S., Trabucchi, D., Shani, A.B., Verganti, R. and Zasa, F.P. (2021), *IDealS (Innovation and Design as Leadership): Transformation in the Digital Era*, Emerald Group Publishing, Bingley, West Yorkshire (England).
- Press, J., Verganti, R., Buganza, T. and Shani, A.B. (2020), "Design-driven transformation. Leadership for innovating with impact", White paper for Center for Creative Leadership.
- Prior, D.D., Keränen, J. and Koskela, S. (2018), "Sensemaking, sensegiving and absorptive capacity in complex procurements", *Journal of Business Research*, Vol. 88, pp. 79-90.
- Reissner, S.C. (2011), "Patterns of stories of organisational change", *Journal of Organizational Change Management*, Vol. 24 No. 5, pp. 593-609.
- Rieple, A. and Snijders, S. (2018), "The role of emotions in the choice to adopt, or resist, innovations by Irish dairy farmers", *Journal of Business Research*, Vol. 85, pp. 23-31.
- Roth, G. and Kleiner, A. (1998), "Developing organizational memory through learning histories", *Organizational Dynamics*, Vol. 27 No. 2, pp. 43-60.
- Röth, T. and Spieth, P. (2019), "The influence of resistance to change on evaluating an innovation project's innovativeness and risk: a sensemaking perspective", *Journal of Business Research*, Vol. 101, pp. 83-92.
- Rouse, E.D. (2020), "Where you end and I begin: understanding intimate co-creation", *Academy of Management Review*, Vol. 45 No. 1, pp. 181-204.
- Rowlinson, M., Booth, C., Clark, P., Delahaye, A. and Procter, S. (2010), "Social remembering and organizational memory", *Organization Studies*, Vol. 31 No. 1, pp. 69-87.
- Sandberg, J. and Tsoukas, H. (2020), "Sensemaking Reconsidered: Towards a broader understanding through phenomenology", *Organization Theory*, Vol. 1 No. 1, doi: [10.1177/2631787719879937](https://doi.org/10.1177/2631787719879937).
- Schön, D.A. (1983), *The Reflective Practitioner: How Professionals Think in Action*, Temple-Smith, London.
- Shani, A.B.R. and Coghlan, D. (2018), "Enhancing action, research, and collaboration in organization development", *Organization Development Journal*, Vol. 36 No. 3, pp. 37-43.
- Simeone, L. and D'Ippolito, B. (2022), "The potential of design-driven foresight to support strategy articulation through experiential learning", *Long Range Planning*, p. 102181, (article in press).
- Simon, H.A. (1996), *The Sciences of the Artificial*, MIT Press, Cambridge, MA.
- Steuer, R. and Wood, T. (2008), "Storytellers and their discursive strategies in a post-acquisition process", *Journal of Organizational Change Management*, Vol. 21 No. 5, pp. 574-588.
- Stigliani, I. and Ravasi, D. (2012), "Organizing thoughts and connecting brains: material practices and the transition from individual to group-level prospective sensemaking", *Academy of Management Journal*, Vol. 55 No. 5, pp. 1232-1259.
- Stowell, F. (2022), "The appreciative inquiry method: from knowledge elicitation to organisational inquiry", *Systems Research and Behavioral Science*, Vol. 39 No. 4, pp. 765-775, doi: [10.1002/sres.2806](https://doi.org/10.1002/sres.2806).
- Sturdy, A. and Grey, C. (2003), "Beneath and beyond organizational change management: exploring alternatives", *Organization*, Vol. 10 No. 4, pp. 651-662.

- Trabucchi, D., Bellis, P., Marco, D.D., Buganza, T. and Verganti, R. (2020), "Attitude vs involvement: a systematic literature review at the intersection between engagement and innovation", *European Journal of Innovation Management*, Vol. 24 No. 5, pp. 1730-1762.
- Tsoukas, H. (2005), "Afterword: why language matters in the analysis of organizational change", *Journal of Organizational Change Management*, Vol. 18 No. 1, pp. 96-104.
- Van Aken, J.E. (2004), "Management research based on the paradigm of the design sciences: the quest for field-tested and grounded technological rules", *Journal of Management Studies*, Vol. 41 No. 2, pp. 219-246.
- van der Steen, M.P., Quinn, M. and Moreno, A. (2021), "Discursive strategies for internal legitimacy: narrating the alternative organizational form", *Long Range Planning*, Vol. 55 No. 5, p. 102162.
- van Hulst, M. and Ybema, S. (2020), "From what to where: a setting-sensitive approach to organizational story-telling", *Organization Studies*, Vol. 41 No. 3, pp. 365-391.
- Venkatesh, V., Brown, S.A. and Bala, H. (2013), "Bridging the qualitative-quantitative divide: guidelines for conducting mixed methods research in information systems", *MIS Quarterly*, Vol. 37 No. 1, pp. 21-54.
- Verganti, R. (2016), "The innovative power of criticism", *Harvard Business Review*, Vol. 94, p. 18.
- Waddell, D. and Sohal, A.S. (1998), "Resistance: a constructive tool for change management", *Management Decision*, Vol. 36 No. 8, pp. 543-548.
- Wadhvani, R.D., Suddaby, R., Mordhorst, M. and Popp, A. (2018), "History as organizing: uses of the past in organization studies", *Organization Studies*, Vol. 39 No. 12, pp. 1663-1683.
- Watson, T.J. (2008), "Managing identity: identity work, personal predicaments and structural circumstances", *Organization*, Vol. 15 No. 1, pp. 121-143.
- Weick, K.E. (1995), *'Sensemaking in Organizations (Foundations for Organizational Science)*', Sage Publications, Thousands Oaks.
- Weick, K.E., Sutcliffe, K.M. and Obstfeld, D. (2005), "Organizing and the process of sensemaking", *Organization Science*, Vol. 16 No. 4, pp. 409-421.
- Weinpress, A., Bieler, A., Gelbetz, R.E. and Or, E. (2018), "Branding an academic superbrand", *Journal of Brand Strategy*, Vol. 7, pp. 117-140.
- Whyte, G. and Classen, S. (2012), "Using storytelling to elicit tacit knowledge from SMEs", *Journal of Knowledge Management*, Vol. 16 No. 6, pp. 950-962.
- Zaltman, G. and Duncan, R. (1977), *Strategies for Planned Change*, Wiley, Hoboken (New Jersey).
- Zasa, F.P., Verganti, R. and Bellis, P. (2022), "Innovator or collaborator? A cognitive network perspective to vision formation", *European Journal of Innovation Management*, Vol. 25 No. 6, pp. 567-588.

Further reading

- Martinez, M.G. (2015), "Solver engagement in knowledge sharing in crowdsourcing communities: exploring the link to creativity", *Research Policy*, Vol. 44, pp. 1419-1430.

Author affiliations

Daniel Trabucchi is based at the School of Management, Politecnico di Milano, Milan, Italy.

Tommaso Buganza is based at the School of Management, Politecnico di Milano, Milan, Italy.

Paola Bellis is based at the School of Management, Politecnico di Milano, Milan, Italy.

Silvia Magnanini is based at the School of Management, Politecnico di Milano, Milan, Italy.

Joseph Press is based at the Parsons School of Design, New School University Parsons The New School for Design, New York, New York, USA.

Roberto Verganti is based at the House of Innovation, Stockholm School of Economics, School of Management, Politecnico di Milano, Milan, Italy.

Federico Paolo Zasa is based at the School of Management, Politecnico di Milano, Milan, Italy.

About the authors

Daniel Trabucchi is an Senior Assistant Professor at the School of Management, Politecnico di Milano, where he also serves as a Senior Researcher in the LEADIN'Lab, the Laboratory for LEADership, Design and INnovation. He works on Innovation Management, with two main areas of research and teaching: platform-based business models and the human side of innovation (with strong focuses on engagement and agile methods to make innovation happen within the research platform IDEaLs). He cofounded Symplatform, the symposium on digital platforms that aims to foster a constructive discussions among scholars and practitioners. His research has been published in peer-reviewed journals such as *Journal of Product Innovation Management*, *Technological Forecasting and Social Change*, *Internet Research*, *Research-Technology Management*, *Creativity and Innovation Management*, *Technology Analysis and Strategic Management* and *European Journal of Innovation Management*; he is also a reviewer for many of these journals. Daniel Trabucchi is the corresponding author and can be contacted at: daniel.trabucchi@polimi.it

Tommaso Buganza is a Full Professor of Leadership and Innovation at the School of Management of Politecnico di Milano where he also is cofounder of LEADIN'Lab, the Laboratory for Leadership, Design and Innovation. He is a Lecturer in Innovation Management and Project Management, responsible for the Project Management Academy and coordinator of the innovation and training area at MIP (Politecnico di Milano Graduate School of Business). He is the Scientific Director of IDEaLs, the global research platform of Politecnico di Milano that pioneers new ways to engage people to make innovation happen with companies. He cofounded Symplatform, the symposium on digital platforms that aims to foster a constructive discussion among scholars and practitioners. He is a member of the scientific committee of the International Product Development Management Conference EIASM-IPDMC. His research activity explores the intersection between technological innovation and leadership and has been published in peer-reviewed journals.

Paola Bellis is an Assistant Professor at the Department of Management, Economics and Industrial Engineering at Politecnico di Milano and serves as general coordinator of IDEaLs, a global research platform which involves international companies pioneering new ways to engage people to make innovation happen. Her research interests are focused on the interplay between Innovation Management and Leadership. In particular, she has been working on the role of team of dyads for the development of innovation in established companies; moreover, she focuses on engagement strategies for innovation development.

Silvia Magnanini is a Post-Doc at Politecnico di Mialno. She is a Senior Researcher in IDEaLs, dealing with the development of engagement experiences through design practices and tools. She focuses on how collaborative decision-making methods foster convergence when people articulate a new strategic vision.

Joseph Press is an Adjunct Professor of Strategic Design at the Parsons School of Design and a Visiting Professor at Politecnico di Milano Schools of Management and Design. He is also a Futures Advisor at the Institute for the Future, where he advises organizations in the design of meaningful futures. After a 10-year career as an Architect, including completing his PhD in Design Technology at MIT, he pivoted into management consulting. He capped his 15-year career at Deloitte by founding Deloitte Digital Switzerland, an interdisciplinary team focusing on the design of innovative digital experiences for global organizations across industries. He then became the Global Innovator at the Center for Creative Leadership, where he led leadership programs to cocreate solutions to challenges requiring systemic transformation. To explore the intersections of his experiences in innovation, design and leadership, he cofounded IDEaLs with the Leadin'Lab at the Politecnico di Milano.

Roberto Verganti is a Professor of Leadership and Innovation at the Stockholm School of Economics. He is also the founder of Leadin'Lab, the laboratory on the LEADership, Design and INnovation of Politecnico di Milano. He has been a visiting scholar at the Harvard Business School twice, at the Copenhagen Business School and at the California Polytechnic University. Roberto serves on the Advisory Board of the European Innovation Council of the European Commission. Roberto is the author of "Overcrowded," published by MIT Press in 2017 and of "Design-Driven Innovation," published by Harvard Business Press in 2009, which

has been nominated by the Academy of Management for the George R. Terry Book Award as one of the best six management books published in 2008 and 2009. Roberto has issued more than 150 articles. He is in the Hall of Fame of the Journal of Product Innovation Management and has been featured on The Wall Street Journal, The New York Times, Financial Times, Forbes, BusinessWeek. Roberto is a regular contributor to the Harvard Business Review.

Federico Paolo Zasa is a Post-Doc at Politecnico di Milano. He is a Senior Researcher in IDeaLs, dealing with the development of analytical tools for visual and text data. His research focuses on the cognitive aspects of the innovation process. In particular, he analyses how the interplay of cognitive diverse individuals and the establishment of a shared vision drive innovation.

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com