Agency and Narrative Creativity as Tools in Transformative Transitions

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Abstract

In the context of a series of various global crises, the topic of transformational transitions of large-scale socioeconomic systems to a new model of development is becoming a frontier for scientific discussions. There is a growing need for actors capable of effectively managing such comprehensive radical transformations with a focus on innovation. The issues of building up human agency of transformational type (TA) have always been the subject of increased relevance. Nevertheless, the degree of demand for this competence has increased dramatically in today's world of high turbulence, variability and instability, against the background of the complex nature of the development models – Industry 4.0. and 5.0 – that are becoming

widespread, as well as the exhaustion of the potential of those management tools that were effective in previous, relatively stable contexts. This article explores the possibilities of TA formation and scaling, and proposes methods of working with this complex, elusive phenomenon to ensure successful development. Relying on a number of concepts (including his own development) and practical cases, the author reveals the "black box" of TA, bringing clarity to the processes of proper formation of rare, transformative abilities. The conclusions presented reveal the sources of renewing potential for management systems, the acquisition of which will allow different organizations to successfully adapt to the increasingly complex flow of change.

Keywords: transformative agency; innovation; transformational transitions; dynamic capabilities; unicorn companies; agency scaling; narrative theory

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Introduction

The current context is characterised by a continuous series of overlapping crises of different nature, which together create a prolonged permacrisis. The existing management models cannot produce adequate responses to this state of affairs (Behl et al., 2023). Education system reforms, among other things, are required to radically change the situation. The model underlying this system determines future professionals' understanding of the dynamics of ongoing processes, and their ability to comprehend (and deal with) complex problems. However, developing such competencies seems to be problematic for universities, largely due to the ingrained dominant belief ready-made solutions exist for any problem (Rappleye et al., 2024). According to the common wisdom, no matter how complex the challenges are, they can be met using existing tools, including improving the quality of education. Generally, the modern education system is designed to teach students to operate in stable contexts, not to adapt to rapidly changing, unprecedented conditions. It's extremely rigid, and ignores alternative tools and strategies. Meanwhile there's a growing body of research suggesting constructive ideas for changing the education paradigm to meet the challenges of developing relevant and in-demand competencies (Machado de Oliveira, 2021). Of particular interest is the line of research on fostering and scaling transformational agency (TA), which we will consider in detail below. However, this notion's place in the broader concept of "agency" as such should be determined first.

Agency is generally understood as the ability to perform actions or interventions which produce a certain effect.1 Two levels of agency are distinguished. The first one is "basic" ("improving agency", IA), and involves actions to support and optimise existing institutional structures. The second level (TA) has a high transformational potential since it involves going beyond "improving the existing" and conducting radical structural transformations at the system and process level (Udehn, 2002). Key principles of TA include subjectivity, responsible choice (OECD, 2018), and nonstandard novelty generation logic (Virkkunen, 2006). TA implies reconsidering basic understanding of human development potential and approaches to management on the basis of "ecosystem" and "relationship" metaphors. The emphasis is shifting to political will and proactivity. The contradictory nature and duality of TA effects must be noted. It undermines the previous modes of socio-economic and technological systems (SETS), challenges the status quo, but at the same time appears to be an effective (and sole) driver for such systems' renewal and adaptation in the situation of a permacrisis (Stetsenko, 2019).

This gives rise to new expectations of the education system: it should create a special type of human capital, TA competence carriers (Carayannis et al., 2024; Golovianko et al., 2023) capable of initiating and supporting multidimensional, complex transformations to facilitate the transition of SETS to more sustainable basis (Markard et al., 2012). Since such broad transformations cannot be achieved with a limited number of TA carriers, a need arises to find the most effective ways of scaling it up. The relevance of developing TA competencies is also due to the fact that transforming SETS through TA makes these systems highly (and adaptively) resilient to complex, turbulent conditions, and facilitates their access to a renewed resource base which ensures their competitiveness (McKelvey, 2010; Brown et al., 2025; Fletcher, Benveniste, 2025; Bromley, 2021).

Generally, the education system does not yet respond to this demand, which, however, is effectively met by the corporate sector and, recently, by specific universities and experimental laboratories (Grillitsch et al., 2023; Ozmen et al., 2023; Ma et al., 2022).² But these efforts are not sufficient to create the necessary mass of TA carriers capable of supporting major transformational transitions (at the level of industries, regions, and markets). And although the relevant debates have been going on for quite a while (Emirbayer, Mische, 1998), the existing literature does not provide a clear answer whether TA can be scaled up at the system level, and if so, exactly how it can be done (Fligstein, Mc-Adam, 2012).

Thus the purpose of this paper is to present a possible theoretical foundation for the development and scaling of TA, and give examples of its practical application. The conceptual basis of our study was made by synthesising several theories, namely the theory of neostructuration (the author's own design) (Sorokin, Mironenko, 2025; Sorokin, 2023), theory of narrative (Fletcher, Benveniste, 2022), theory of complex adaptive systems (CAS) (McKelvey, 2010), and theory of transition management (Notermans et al., 2022), and theoretically interpreting unicorn companies as TA concentrators. Two corporate case studies will help us open the "black box" of the mechanisms large companies with long histories applied to scale up TA.

Literature review

Evolution of the education system

The present-day education system was created in the context of a "modernist" type of society characterised by strict adherence to established rules and an emphasis on specialised knowledge (Beetham, 1987). The design of such a system is based on the assumption of a

Oxford Dictionary, 2012. https://www.oed.com/dictionary/business_n?tl=true, accessed on 05.07.2025.

An example is the European "Science Education for Action and Engagement towards Sustainability" (SEAS) initiative implemented jointly by Austrian, Belgian, Estonian, Italian, Norwegian and Swedish educational systems in 2019-2022 (Erstad et al., 2025).

certain degree of stability and predictability of the environment. Since the mid-20th century, higher education has not simply reproduced, but shaped global social reality (Schofer et al., 2021; Meyer, 2010). The ideas of progress, rationality, and the fundamental cognoscibility of the world were broadcast. These framed the concept of a clearly mapped path to achieving a high quality of life. It was assumed that progress along this track was facilitated by ready-made solutions organising life at the national, corporate, or individual level. The broad proliferation of higher education allowed different social groups to become parts of a common culture based on universal "correct" standards.

According to the human capital theory, the key economic development factor is precisely the "right" education which matches the current and predictable demand in the labour market (Becker, 1962; Schultz, 1960; Meyer, 1977). The "new institutionalism" school questions the "objective rationalist" logic instilled by the education system, pointing to the resulting misconceptions about the actual operations of organisations. It is emphasised that cultural and structural aspects play a more important role. E.g. the survival and prosperity condition turns out to be not following the "maximise benefits" strategy, but becoming legitimate by relying on narratives about the superiority of certain technologies or organisational practices. Consequently, emerging organisations (companies, etc.) strive to imitate institutions that have successfully achieved such legitimacy in the past (DiMaggio, Powell, 1983).

During the 1950s-2000s, relatively steady progress was observed in both the economic, and socio-cultural dimensions, which has ingrained the belief in the positive impact of established educational approaches on social progress (Schofer et al., 2021; Psacharopoulos, Patrinos, 2018). Universities generated new knowledge and developed management tools. Priority was given to developing students' logical abilities, and the ability to analyse information while assuming a sole correct answer exists, and the system remains highly predictable (Meyer, 1977).

The growth of the service sector since the 1970s promoted researchers' and practitioners' growing interest in "soft skills" to improve interpersonal communication. However, the assumed objective was to broadcast existing meanings without creating any new ones. In other words, the development of such abilities was based on "reproductive" logic, rather than "transformational" one. International initiatives to assess the quality of education at all levels have been designed accordingly since the 1960s, including TIMMS, PIRLS, PISA, PIACC, etc.

However, in the 21st century the context has changed dramatically. The previous structural growth factors (market expansion, cheaper technologies, removal of

barriers to international trade, educational mobility, etc.) have exhausted their potential. The literature discusses significant changes in the logic of SETS development caused by incessant impact of major external factors and internal processes, reducing their structural stability. This is indicated, e.g., by the theories of "strategic action fields" (Fligstein, McAdam, 2012), "morphogenetic society" (Archer, 2013), and proposed by the author of this paper "neostructuration" concept (Sorokin, 2023), which describes the conditions under which SETS not only change rapidly, but become fundamentally dependent on human agency (in the broad sense). Along with threats to SETS, also increases the potential for individual and collective TA which can radically transform them and bring to a new level. In various activity areas questions have increasingly arisen about the education system: to what extent it can create human capital capable of efficiently performing under growing complexity and uncertainty. The notion of a "TA shortage" has emerged (OECD, 2018; UNDP, 2024). The need to develop this competence is particularly obvious at the level of university educational programmes. However, there are problems even with operationalising the TA concept, not to mention developing the relevant skills. In the last decade, the discourse on different types of human agency (IA and TA) broke down into two unequal "camps". Each of them is described in more detail below.

Improving agency (IA)

The first, more popular line of research focuses on the occurrences and effects of agency caused by dominant factors independent of the will and efforts of the individual. These can be of both external (culture, technological and macropolitical systems) and internal origin (behavioural, mental-cognitive aspects). The relational approach³ dominates here, which describes IA as agency "placed in context" and affected by socio-cultural interactions and dynamics (Stetsenko, 2019). This logic fits into the common understanding of the education system's most important achievement of recent decades, namely the focus on training and developing people in line with social contexts and practices. It is believed that setting the right "external" stimuli encourages overcoming crises and adopting more complex development models. As a consequence, more productive thinking and behaviour algorithms are expected to "trigger", e.g., divergent thinking (Fletcher, Benveniste, 2025). These theories are based on the complex human nature, different monodisciplinary perspectives (homo economicus, homo politicus, homo soveticus, etc.). It is assumed that individual reaction to external conditions can be predicted based on the context in which the individual find themselves, and on the understanding of their mental-cognitive patterns. Most such concepts follow "structural logic".

³ Also defined as "situational", "contextual, "distributed" and 'ecological" approach (Stetsenko, 2019).

It would be wrong to claim that these approaches ignore human agency (in the broad sense) as a resource to conduct major structural transformations and assign it a secondary role in relation to the conditions (i.e. gives it the IA status). Promoting individual initiative, ingenuity, and creativity is also seen as important, but only in terms of reproducing and optimising existing contexts instead of radically transforming them. E.g. the need to develop the ability to map one's individual educational path is mentioned, but within the existing hierarchy. The possibilities of designing new, more complex action patterns or structures are not considered. Strategic management studies use concepts such as "innovation behaviour", "transformational leadership", etc., but focus solely on individuals' initiatives to support the existing frameworks. Creating genuine innovations which would change these frameworks is not mentioned (Brown et al., 2025; McKelvey, 2010).

In recent years the "entrepreneurial ecosystem" concept has been widely discussed, which denotes a set of many factors that "guarantee" creating the desired dynamics (Munoz et al., 2022). However, in the context of transformational transitions creating structural foundations is not a sufficient condition for the emergence of new enterprises and markets. IA skills work well only when complete information is available, and the environment is stable/predictable. In the new realities incremental improvements may prove futile, since they do not meet the relevant challenges. Individual TA begins to play an important role, as a tool for reconfiguring existing structures and building new, more flexible and adaptive ones. An example of practical TA is the "entrepreneurial leaps" concept (Sternad, Modritscher, 2022). It implies impacting organisational structure during the "transition phase" when difficult to predict "trigger moments" arise, leading to strong transformational effects (Coad et al., 2021). Behaviour-related aspects (which in most studies are seen as the main agency indicators) reflect intention rather than practical transformative action. In such situations there are no grounds to talk about transformation of the community, processes, etc. The only result is a change in the agent's position in the existing structure (Sorokin, Redko, 2024). There is a gap between mass educational programmes to develop IA skills, including creativity courses, and "niche" ones focused on TA (strategic management or MBA programmes) (Fletcher, Benveniste, 2025; Sorokin, Chernenko, 2022). At the same time, both these programme types lack tools for either measuring, or developing agency potential (Kim, 2016; Henriksen et al., 2019). The "epistemological gap" also remains insufficiently understood: despite the availability of current data on transformational potential of human agency in relation to SETS, the possibilities for developing it remain insufficiently studied. Moreover, regardless of the declared importance of TA, IA actually remains the main object of measurement (Reeve et al., 2020).

Transformational agency

The second "camp" in the agency debates, and in the development of relevant tool, is focused on TA\$ it's smaller, but differentiated equally strongly. TA is seen as a complex phenomenon, essentially contrasting with the dominant understanding of agency as the ability to "act within existing frameworks observing established hierarchies, and support them" (IA). The focus is on individual potential to not only contribute to the qualitative transformation of an industry, company, project, etc., but drive the creation of new, or the adjustment of existing social structures relying on internal creative potential (Haan, Rotmans, 2018). There is no commonly accepted term to describe such abilities, partly because they are dynamic in nature and applied in unstable situations. This cluster also comprises modern interpretations of the cultural-historical theory (Stetsenko, 2020), the "agent involvement" concept (Klemenčič, 2023), and other notions (Sorokin, 2023). The most highly developed domain in TA-related research is focused on entrepreneurship and organisational change, e.g. in the context of the transition to a new technological order (Haan, Rotmans, 2018). New interpretations of entrepreneurial ecosystems (Muñoz et al., 2022) and of strategic management patterns (Brown et al., 2025) are proposed, along with those of major technological shifts (Haan, Rotmans, 2018), with an emphasis on TA's system-forming role.

Given the insufficient attention to the TA topic, this paper aims to fill this gap and outline ways to facilitate it. A possible theoretical basis for the development and (most importantly) scaling of TA will be considered below.

Methodologies for developing TA have already begun to emerge, but mainly outside the education sector, and they still remain of a "niche" nature. Overall, measuring TA remains one of the most important unsolved mass education problems the world over. University entrepreneurial training programmes could be considered a tool for developing the competence in question, but no relevant designs in this segment have actually proved their effectiveness (Sorokin, Redko 2024). Even among the world's leading universities there is no consensus on what skills students should have after entrepreneurial training, not to mention how to measure them (Sorokin, Chernenko, 2022). A knowledge base has been accumulated on individual characteristics and organisational climate that determine the effectiveness of training programmes. However, the success criteria typically do not go beyond developing entrepreneurial intentions and defending a training project, with no talk of students launching new enterprises (Nabi et al., 2017). There is no real understanding, in either scientific research or educational practice, of what tools help create successful entrepreneurs (Sorokin, Chernenko, 2022). The development of TA is often seen solely as a means to deal with "rigid", discriminatory structures (Klees, 2016). Its potential to support, and adapt to changes in such basic structures as school, family, corporations, development institutions, etc. is not taken into account.

In the transformational paradigm, reality is perceived as an object of constant transformations carried out by agents involved in social practices. The coevolution phenomenon emerges: agents change the world, and in the process change themselves. In other words, they do not simply react to what is happening, but proactively participate in the joint creation of both the world and themselves, beyond the "given" present. TA plays a central role in the overall socio-historical dynamics (Stetsenko, 2019).

At first glance, many of the teaching approaches, formats, and practices that have emerged in recent years may have high potential for developing TA. These include the agile teaching and learning methodology (ATLM), mentoring, developing entrepreneurial thinking, etc. However, their theoretical basis (and the actual effectiveness) remain insufficiently studied. In particular, teaching solutions for acquiring TA skills are discussed separately from the latest socio-economic trends, including transformational transitions.

Constructivism is considered to be a more advanced approach to education, based on the idea that students should create a new framework of concepts or improve the existing one, projecting it on real-life situations (Snowman, Biehler, 2005). It assumes that externally developed ideas and action practices are absorbed "inwards", since "real" situations imply a relatively stable context, through the prism of which the student perceives both the reality, and their own potential (Koreshnikova, Sorokin, 2024). It's not about developing TA as a new way of acting, or of interpreting reality. From this point of view, the term "constructivism" does not accurately describe the phenomenon under consideration, since the constructed image of reality is not objectively new: it's a product created in line with the model set by the educational environment. To overcome the limitations of this approach, an alternative "neo-constructivist" educational paradigm is proposed, which assumes that the context may have a high degree of uncertainty and no single "correct" answer or the sole "right" course of action to solve the problems at hand. Such an approach seems to be a key tool for supporting TA development, though specific relevant mechanisms remain unclear (Koreshnikova, Sorokin, 2024).

The question of how the objectives and potential of the education sector may change due to the development of AI technologies hasn't been sufficiently addressed either. The available data suggests that on the one hand, AI tools can be used to expand the scope for TA application, while on the other, their implementation may

lead to replacement or even complete displacement of TA (Fletcher, Benveniste, 2025). E.g. according to an expert survey by Elon University, 44% of the respondents expected negative (rather than positive) effects of AI development on people's "ability to act independently"; 30% noted the same for "creativity and innovative thinking", and 50% for the "ability and willingness to deeply consider complex concepts" (Anderson, Rainie, 2025).

TA becomes a crucial factor determining the choice, and implementation of specific development paths in the situation of transformational transitions, characterised by both high structural volatility and diverse opportunities. The most complete understanding of the "transformational transition" concept is presented in the works by Erasmus University researchers (Rotmans et al., 2001; Haan, Rotmans, 2018). This concept describes a long-term, non-linear process of complex transformations of SETS in the technological, economic, environmental, and social dimensions during the transition from the old paradigm to a new, more sustainable and adaptive one (Rotmans et al., 2001). A successful "transition" requires three conditions: locallevel innovation, changes in the interaction "mode" within the system, and broader changes in the external landscape which promote evolution (Grin et al., 2010). This is a process of structural confrontation of "niches" (local, frequently peripheral networks of actors and patterns of their interaction), and "modes" (dominant player networks occupying "central" positions in the system, and their interaction patterns) (Avelino et al., 2019; Loorbach et al., 2017). However, TA is not determined by "niches" or "modes" (Avelino, Wittmayer, 2016; Haan, Rotmans, 2018; Fisher, Newig, 2016). The example of the energy industry shows the inconsistency of the approach which sees actors exclusively as "niche subjects". The space for possible strategies is much wider.

To describe the structural conditions under which TA becomes a crucial transformation factor, the "transition space" concept is proposed: a spatio-temporal state in which the "mode"-related structural determinants are significantly weakened, while the variability of possible TA forms is extremely high (Bosman, 2022). In previous transitions (from agrarian to industrial economy, and then on to knowledge-based one), the system's target state can be identified, i.e. the state achieving which is seen as successfully completed "transition". An important feature of the current transformational transition phase is that such system state can be called "sustainable" only relatively. Unevenly, but ubiquitously growing demand for TA, not only by different-scale economic structures (such as corporations, industries, or the economy as a whole), but also in many other domains (Sorokin et al., 2025), forces us to reconsider the very idea of "sustainability".

^{4 &}quot;Mode" means the dominant "rules of the game" in the scope of a "balanced", stable system which regulate the actors' interaction.

Summarising the literature review, it can be concluded that IA is limited to supporting and improving existing structures, while TA aims at radical transformation and creating new contexts. A combination of their best, most valuable characteristics seems to be an optimal choice. We are talking about combining established structural forms⁵ with new action modes, communities, and institutions based on individual agency and the "fields" it creates (Sorokin, Froumin, 2022).

The role of narratives in scaling TA

A new publication (Fletcher, Benveniste, 2025) which presents the results of a unique study commissioned by the US military sector in 2021 to find the reasons for the low effectiveness of training strategists and agents of change appears to be a breakthrough in understanding the potential for TA scalability. The authors, Angus Fletcher and Mike Benveniste, developed a new method to teach creativity based on the narrative theory.⁶

Narrative creativity is understood as the cognitive ability to construct, and actually implement a vision of the world and one's place in it. This approach "side-lines" the principles of social science and educational practice based on the idea of the world being deterministic and stable, subjected to "random" fluctuations only occasionally. Instead of abstract images and comparisons based on "randomness" and "logic" principles, actual stories and events in the course of which the best reality improvement practices were employed, and complex problems solved through TA are the key instruments here. In other words, the actor operates not with generalised "data", but with "events".

The authors emphasise that "compensating" human narrative abilities by technology is impossible. AI already surpasses humans in logical operations and in generating abstract or random content, but this does not yield practical effects in the form of "improvements" on a commensurate scale. Furthermore, exclusive reliance on logic and randomness principles significantly limits the potential for creating "strong" useful innovations, while for possessors of relevant skills who have received formal education (IA carriers), the risk of being "replaced" by AI increases. In reality, most educational initiatives, including creativity development practices in the formal and informal sectors, focus exclusively on teaching logic, without paying attention to the cognitive abilities associated with "narrative creativity". It is the formative impact of the education system built on the meritocracy principles, and the associated assessment through logical tests, which is seen as the reason for the sharp decline in creative abilities as early as in school (Fletcher, Benveniste, 2025).

As an alternative, it is proposed to focus on successful action patterns determined by the will and abilities of specific actors. The author of the narrative and their motives become the source of "truly creative" actions and strategies which transform the situation. The mechanism of interpreting and constructing reality is important here, which gives meaning to the practical improvement of the world and facilitates TA. It is exactly in developing this key natural ability to create innovations the modern education system faces significant difficulties (Fletcher, Benveniste, 2025). The model proposed by the authors can be seen as the missing element that allows to link high-level multidisciplinary social theory, economics, management, and psychology concepts with the reality of education practices.

The "narrative creativity" concept makes it possible to actually implement the neoconstructivist ideas proposed earlier. According to them, the educational situation should have the following characteristics: dynamism, high uncertainty, do not assume the existence of a single correct answer or course of action, encourage students to independently define problems and set goals, and use variable strategies.

Unicorn companies as TA hubs

An illustrative example of a very promising field for both practising and developing TA is provided by unicorn companies, with their extremely high capitalisation growth rate. To reach a value of 1 billion USD and above, other players need decades, while unicorns manage to reach this threshold in the first 10 years of their life. Unicorns show amazing flexibility during the periods of SETS failures (Kuckertz et al., 2020; Rodrigues, de Noronha, 2021). A key role in this phenomenon plays TA which is inherent in the overwhelming majority of such companies' founders. In recent years an exponential increase in the number of unicorns has been recorded. At the time the term "unicorn" was suggested (in 2013), there were just 38 players in the world meeting the criteria, and 10 years later this population has reached 2,600 (Dealroom, 2023). But despite the rapid increase such companies still remain a relatively unique phenomenon: e.g. in Europe only one in 100 start-ups achieves this status (Testa et al., 2022). The growth of the number of unicorns has significantly accelerated after COVID-19: in 2021 alone 472 new such firms were created. Unicorns play a crucial role in driving innovation and economic dynamism (Testa et al., 2022; Shahid, 2023). Their concentration has become a key indicator in global innovation rankings (WIPO, 2023). Unicorn start-ups share the characteristics of successfully transforming systems. Currently there are 2,615 such companies worldwide, 90% of which

⁵ Including the components vitally important for the society. E.g. the Russian expert discourse frequently employs concepts such as "civilizational foundations" or "traditional values".

⁶ The narrative concept distinguishes constructive and destructive narratives. The success of dynamic actors (individuals and groups of any size) in creating breakthrough innovations and implementing significant changes depends on the ability to construct creative narratives (Varfolomeeva, 2021).

⁷ Unlike, e.g., such concepts as "creativity", "meta-competences", "universal competencies", or "4k competencies"

are located in just 15 countries. The United States and China account for 54% and 12.42% of the total number of unicorns, respectively. Their highest concentration is noted in such industries as fintech (517 unicorns), healthcare (433), and transportation (234).

Ilya Strebulaev (2025)8 analysed the competency background of the founders of more than 1,000 unicorns. They tend to have a top-level education, most often received at Stanford, Harvard, and MIT; the probability of meeting a PhD among them is six times higher than in the average US residents sample. Most founders graduate from American universities (80%), followed by Tel Aviv University (Israel), the University of Waterloo (Belgium), and the Technion (Israel).9 The typical unicorn founder also has an additional portfolio of post-university knowledge. Having diverse previous experience is a more important prerequisite for a strong TA position than "structural advantages" in the usual sense. The rapid growth of unicorn companies has produced a stable, creative narrative which serves as a role model for potential followers. The global entrepreneurial techno-environment offers a new, meaningful "game" for all who dare to take an innovative action in the logic of the "hero entrepreneur" archetype, who uses advanced technologies to transform the way of life based on a non-standard logic. The established narrative is picked up by carriers of TA potential, which creates incentives for further growth of the number of such companies. Interestingly, these dynamics occur not so much "thanks to", as "in spite of" the overall, predominantly quite negative economic and market growth trends of the recent years. This can be seen as evidence of the neostructuring processes mentioned in the introductory section.

Case studies of TA in companies employing a narrative approach

A more complete understanding of the nature of transformational processes, and of the role of TA in them, provide case studies of companies with a rich background using different types of narratives. These cases highlight hidden tools for scaling up TA in corporate environment, along with exogenous and endogenous formats of conducting transformational transitions.

We'll examine two corporations that implemented transformational transitions under the supervision of outstanding top managers of the 20th century: General Electric (Jack Welch), and Intel (Andrew Grove), both of whom certainly were TA carriers. In the first case, the transition was initiated "from within" in a "closed" mode; in the second, it came "from outside" and required unprecedented response measures. Transformational transitions are accompanied by a unique phenomenon that changes the ingrained ideas about the nature of proactivity and reactivity. This paradox is also evident in the cases under consideration. For General Electric the external context remained relatively stable, so the transition to new development model was facilitated artificially and proactively within the company itself. On the other hand, Intel had to handle the transition reactively, since external threats forced the company to employ such a strategy.

Contrary to simplified ideas, "proactivity" is not a winning strategy in all cases: in certain contexts the only right path is "reactivity". According to the common wisdom, proactivity is by definition something "positive", while "reactivity" is interpreted rather in a negative way. However, in a situation of transformational transition such distinction loses relevance: rapid and unpredictable changes have to be responded to more and more often, which strengthens the relevant transformational measures. Thus in managing complex systems, "reactivity" can be a no less important quality than "proactivity".

In our study, the time factor plays a significant role in analysing TA scaling processes. Decades have passed since the aforementioned top managers have left the "scene" - a sufficient period of time to assess the growth of the TA seeds they have sown, and to what extent their successors have subsequently managed (or failed) to scale up this competence and augment the achieve-

There two cases significant differ in terms of management style, choice of narratives, and results of transformational transition. At the same time they have two factors in common: reliance on the SAS principles (the companies operated in high-stress situations but maintained functionality), and use of narratives. The key condition for maintaining self-organisation in ascending dynamics is combining narratives of different nature: "supporting" (which strengthen long-term commitment and promote adaptive tension necessary in the context of transition), and "existentially challenging" ones.

In the GE case, we rely on the paper (McKelvey, 2010) which reveals the mechanisms and results of the transformational management. During the 20 years of Welch's leadership, the company's capitalisation increased 40 times (Sirisha, Dutta, 2002; Hartman, 2003). Such impressive growth was largely made possible by the use of SAS principles, managing "adaptive tension" 10 on a distributed basis11 (as opposed to the traditional top-down "objective-based management"), and certain narratives. Time shows. however, that over a long

⁸ https://endeavor.org/stories/unicorn-founder-pathways/, accessed on 04.06.2025.

⁹ https://news.crunchbase.com/edtech/unicorn-founder-myth-education-matters-strebulaev-stanford/, accessed on 04.06.2025.

¹⁰ The concept of "adaptive tension" describes the gap between the current situation and the desired future for an individual or organisation, identifying which prompts strategy development, becomes an incentive for knowledge sharing and fundamental internal transformations in response to the changing context.

¹¹ I.e. without having a single decision-making centre, distributing management responsibilities between various members of the organisation (McKelvey, 2010).

Table 1. Key Narratives Used in the Presented Cases	
GE	Intel
 "Be first or second, or leave!" "Face what you don't want to face" ("Facing reality") "Strategy is not a long-term action plan" "Forget existing competencies and master new ones" "Successful innovations bring in big money" "Don't wait for clear instructions" "Learn from each other" 	 "Find your way in an unfamiliar, difficult environment with no rules" "We make the transition like crossing a "death shadow valley", knowing exactly what awaits us at the other end" "We put all our eggs in one basket, but protect the basket" "Moving in the same direction blocks new opportunities" "Listen to Cassandras - people at the frontier of change" "Break down the walls between Cassandras and the management"
Source: author.	

distance this approach ceases to work after a change in leadership due to "attachment" to its initiator, who has failed to scale up TA even over their immediate circle. When Welch left his position in 2001, GE's dynamics gradually changed from upward to downward, and not long ago the company ceased to exist having disintegrated into several mediocre firms. Nobody was able to embrace the transformational agency inherent in the leader, despite all efforts. One of the key reasons for the failure to achieve the desired effect seems to be the unbalanced portfolio of narratives used, dominated by the ones which can be described as "harsh" and "existentially challenging". The single "supportive" one (tangible financial rewards for successful experimental innovation projects) could not save the situation. A successful transformational transition requires a subtle understanding of its different facets, literally at the 'halftone" level. In the context of an excessively turbulent and emergent process no clear strategy can be employed by definition; however, this does not cancel the need for a common vision, and at GE the latter was too abstract. In the process of creating innovations employees had to find ideas in an extremely uncertain environment, with no benchmarks, and under a challenging key narrative ("Be first or second, or leave!"). Initiators of unsuccessful projects were promptly let go, as were managers unable to fire "losers".

The transformational transition model employed by GE comprised the following components: artificially created adaptive tension, diverse personnel competencies, maximum freedom of action, challenging narratives prompting people to go beyond the possible, and generous financial rewards (for successful innovations). However, due to the lack of sufficiently "supportive" narratives this model undermined the potential for scaling up TA. It was believed that in a situation close to existential risk, employees should master paradoxical thinking on their own, by teaching each other (Slater, 2001), in the expectation that coevolution will produce the necessary educational effect. However, as other projects indicate, this approach does not work. Thus in the GE case, the conditions for scaling TA turned out to be inadequate, and the company's upward dynamics remained dependent on the efforts by the single carrier of this agency type. This model worked as long as the top manager (the TA carrier) remained "on stage". With his departure, the factors supporting the process came to naught, the corporation gradually degraded, and eventually fell apart.

In the Intel case, Andrew Grove's book (Grove, 1999) served as the source of information; he managed to successfully conduct a transformational transition largely due to the unique climate created by using the right combination of different-type narratives. As a TA carrier, Grove turned the complex transition management process into an "uncomplicated technique" supported by a transformative narrative based on the following logic: in most cases, strategic turning points (permacrises) occur as a result of a tenfold change in external contextual forces. Facing such a challenge discourages one, and "paralyses" their intellectual ability. People lose their spirit and cannot cope with the tasks at hand. The only way to "survive" is move much faster than competitors, in a correctly chosen direction. At such time employees must provide maximum possible support to each other at all levels; a most favourable atmosphere for exchanging opinions must be created, and transition management experts should be involved. Creating and maintaining such a climate requires great enthusiasm, takes time, effort, and other factors. Topdown and bottom-up actions during a transition are equally necessary, which in a different context would be impossible. Despite the fact that Intel did have the initial potential (in the form of a strong corporate culture and an adequate resource base), it was able to complete the transformational transition only due to the factors mastered during this process. To overcome an extremely complex existential crisis, the company "reinvented" itself. Only in the framework of a "reinvention" logic (which implies extremely adaptive stretching of cognitive and mental powers) personnel can master TA, and then during the subsequent cycles skilfully scale up this rare agency type.

Table 1 presents some of the narratives that determined the course of evolution of the companies under consideration.

To conclude, we emphasise that successful implementation of complex, long-term projects requires a combination of narratives of different type. In addition to "supportive" and "challenging" narratives there is a third, no less important kind which encourage creating

adaptive tension in favourable internal and external contexts with positive development dynamics and no danger of falling into inertia and changing pace. Such narratives can become the subject of further research to enrich the understanding of the roles of different narrative types in successfully completing transformational transitions and scaling up TA.

Conclusion

The ongoing chain of various-nature crises raises the question of transformational transition of systems, organisations, sectors, etc. to a new development model, giving this topic the status of a scientific discussions frontier and making it a key practical challenge. The literature on sociology, economics, management, psychology, education, and technology examines the driving forces of change from different perspectives. However, human agency at the transformational level (TA), which is the focus of this paper, remains insufficiently studied. TA implies a rare, and highly soughtafter ability to radically transform socio-economic and other systems that have lost their upward dynamics, to create innovations. The education system is largely responsible for the development and scaling of TA skills. But it mostly reproduces "improving" agency (aimed at supporting and upgrading existing institutional structures), and this is observed in all countries. Such approaches worked well in times of relative stability and low pace of change. However, the current context of high turbulence, rapid change, and instability requires a new logic to deal with things "never encountered before". Against the background of the new, increasingly complex "global" agenda, including the transition to the latest economic models (Industry 4.0 and 5.0) and digitalisation of production processes, the exhausted potential of most of the existing "traditional" tools, and their inadequacy for responding to the new challenges is becoming obvious.

A certain contribution to understanding the nature of TA and methods of its development is made by the corporate sector and some universities, which in recent years have been actively experimenting in this area and achieved significant success. Their results indicate that a flexible combination of IA and TA characteristics allows to design new approaches to accomplishing major objectives, successfully conduct transformational transitions, and adopt more complex development models. The paper analyses agency in the context of different stages of the education system, and explores possible approaches to developing and scaling up TA taking into account the potential of AI and the narrative theory. Case studies of companies transformed by TA carriers highlight the implicit characteristics of this agency type, and describe possible ways to develop relevant skills. They illustrate key theoretical postulates which structure and integrate the latest advances in open systems theories (Haan, Rotmans, 2018) with the social theory ideas (the neostructuration concept) and applied psychological and educational concepts, such as, e.g., the narrative creativity theory (Fletcher, Benveniste, 2025). Our analysis shows that skilful application of the narrative approach is becoming an effective tool for scaling up TA as a competence required for successful transformational transition of organisations, sectors, and other systems to new development models. It's based on the correct balance of different-nature narratives ("supportive" and "challenging" ones), finding which is a non-trivial task, despite the seeming simplicity of its formulation. One of the companies reviewed in the paper was unable to accomplish this objective, despite having a solid resource base. The problem of human agency, and its role in the transformational transitions of socio-economic, ecological and technological systems requires further research, which, given the current global and national challeng-

es, would be crucially important both theoretically and

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