

The Twilight Zone: Managing Project Transitions

Editorial Introduction by

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Introduction –Transitions as the Project Twilight Zone

Traditionally, we consider projects to be temporary organizations "to which resources are assigned to do work to deliver beneficial change" (Turner, 2009, p.2). As execution vehicles, researchers and practitioners primarily view projects as organizational entities with a clear distinction between both strategic decisions and operational 'business as usual' (Brookes, Sage, Dainty, Locatelli, & Whyte, 2017). More recently, however, an increasing body of research acknowledges the importance of integration and alignment that projects need to achieve with their strategic and operational environments. These ideas emphasize not only the temporarily-transient nature of project organizing but also the role of *transitioning* between the projects and their historical (Engwall, 2003), organizational (Davies & Brady, 2016; G. Winch & Leiringer, 2016), and institutional (Scott, Levitt, & Orr, 2011) environments.

The idea of transitions is essential to our understanding of projects and project organizations (Lundin & Söderholm, 1995; P. W. G. Morris, 1997) as it suggests a movement or shift across different entities delineated by structural boundaries, for example, those between firms or other kinds of organizations. However, scholars also identify several other boundaries, such as efficiency power, competence, identity (Santos & Eisenhardt, 2005) or knowledge (Brusoni, Prencipe, & Pavitt, 2001). Recent work looks at the role of projects as trading zones enacted to deal with task uniqueness, the interdisciplinary nature of innovation activity (Lenfle & Söderlund, 2019), and the importance of boundary-spanning activity that allows projects to fulfil their goals and organizations to collaborate (Stjerne, Söderlund, & Minbaeva, 2019).

We see at least two levels at which transitions in projects can be considered: (1) the transition across the boundary between 'temporary' project delivery and 'permanent' organizational activity and (2) the transition points between and across the distinct phases in the project

lifecycle. This Special Issue is dedicated to the latter. Central to this is the main idea that projects are defined as a succession of development phases and transitions occur when the project shifts from one to another phase of its lifecycle (Figure 1).

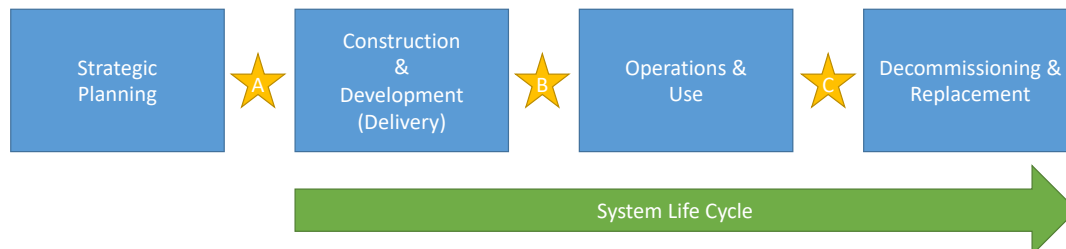


Figure 1- Extended Project Lifecycle

Depending on the sector type, the extended project lifecycle (e.g. (Artto, Ahola, & Vartiainen, 2016)), can be understood as a relatively consistent sequence of four main development phases: (1) strategic planning (including feasibility study), (2) design and construction or development and implementation, (3) operations and use, and (4) decommissioning and replacement. From this perspective, the critical goal of project management is to facilitate the creation of value across the life cycle (Artto et al., 2016). If we take the infrastructure sector as an example, planning, construction, and decommissioning are "project phases" with well-studied stakeholders, and processes (Matinheikki, Artto, Peltokorpi, & Rajala, 2016). Nevertheless, while a great deal of research focuses on the specificities of various project phases, there are many technical, organizational, economic, and managerial challenges relating to the transitions between and across the phases, as mentioned earlier. Surprisingly, those transition-related project phenomena between phases remain remarkably under-investigated. Drawing upon the system life cycle view and phased development of projects, this special issue aims to clarify the transitions in projects and their management, which begins with the inception of an idea and finishes with the final dismantling of the delivered product or asset.

Along the extended project life cycle, a project's value is first anticipated in strategic choice, shaped during project execution, realized during operation, and ended upon disposal or decommissioning (P. Morris, 2013). Researchers commonly consider the major phases independently in the pursuit of contributions to knowledge and best practice

recommendations. Many studies deal with the strategic decisions required to select the best projects for an organization to pursue (Archer & Ghasemzadeh, 1999) or on the numerous aspects of managing projects to deliver a specified product efficiently and effectively (Söderlund, 2004). An entire segment of management research considers gaining and attaining value from the operation of a project's output (Manikas, Boyd, Guan, & Hoskins, 2020). Still, other researchers consider practical means of retiring the output of the project, which can change in magnitude from the phasing out a product line to decommissioning large-scale assets, such as, for instance, a nuclear power facility (Laraia, 2012). This special issue is dedicated to an exploration of multiple challenges (and opportunities!) as the conceptual project strategy transitions toward a quality product, asset to be operated, or resource to be dismantled after operational life.

A: Transition from Strategic Planning to Construction and Development

The purpose of projects in organizations is to implement ideas that advance an organization along a defined strategic path (Morgan, Levitt, Malek, & Morgan, 2007). The ideas might be simple changes to processes or merchandise such as a new consumer good, the development of new resources or facilities such as an enterprise system, or the creation of infrastructure or policy such as a green power grid for a megalopolis (Morgan et al., 2007). Regardless of context or magnitude, the project (or program) manager must turn the conceptual ideas of executives and management into viable products, services, or physical assets.

This perspective of conflicting interdependence and independence can result in consideration of backwards-seeking advice for the project managers through techniques such as requirements analysis (P. Morris, 2013; Thompson, 1967). This view dominates the information literature where requirements determination is the responsibility of the project team, but only through the involvement of sponsors and users in the design and planning of the system. Many theoretical models follow in the literature to explain process and value in interacting with those who will benefit from the development of a new system (He & King, 2008). Meeting elicited requirements often relies on foundational theories of planning and control. Planning focuses on looking forward to providing early guidance that directs the course of a project (Daniel & Daniel, 2018). Control theory seeks to look backwards and peg project performance to established requirements (Liu, Chen, Jiang, & Klein, 2010).

Important decisions about strategic planning and resources are made here (Artto, Kujala, Dietrich, & Martinsuo, 2008; Edkins, Geraldi, Morris, & Smith, 2013), including decisions on how to migrate from a strategic portfolio or program into a project. This link between projects and their strategic counterpart emphasizes the role of projects as strategy execution vehicles and draws upon the firm dynamic and project capabilities (Davies & Brady, 2016; G. Winch & Leiringer, 2016). In this sense, projects build on organizational ambidexterity, balancing the exploration activities with the exploitation of existing knowledge and expertise (N. Turner et al., 2014). This transition is about how projects are created to fulfill a specific organizational goal, after which they dissolve.

However, the reach backwards is not necessarily effective as "plans are nothing, changing plans is everything" (Dvir & Lechler, 2004). Responses to the problem of malleable requirements and environments include new paradigms for design, such as agile (see volume 49, issue 6, *Project Management Journal Special Issue: Exploring the Role of Agile Approaches for the Management of Projects*, December 2018), or more demand for forward-looking actions on the part of the project sponsors, often in the form of goals or benefit targets (Jamieson & Morris, 2016)(Zwikael, Chih, & Meredith, 2018). Considerations of aligning business and project strategies address inconsistencies that create transition difficulties (Milosevic & Srivannaboon, 2006). Goal-setting theory and variations explain how goals bind individuals and groups to a directed course of action (Locke & Latham, 2015). Nevertheless, actions derived from these perspectives wind up a weak link, since goals require setting direction, targets, and boundaries within a universal language that is difficult to attain across diverse groups (such as executives and project managers). The goal statements often prove equivocal across such diversity, reducing the positive attributes of goals (Chun & Rainey, 2006). Thus, these forward-looking approaches do not address many of the concerns that arise at the interface of strategy and project as they look to process, responsibility, and structure rather than an in-depth consideration of capitalizing on the interdependencies at the interface.

An organization must take gain from mutual reliance and interests since the competencies, perspectives, and goals of each group differ, in this case, differences being between the

project teams and the executive/management teams. Specific suggestions appear in more recent studies that require a strategic consensus involving both executives and project management (Chang, Jiang, Klein, & Wang, 2019). Constructive controversy practice allows diverse interests to drive toward creative solutions and improved understanding across multiple interests (Johnson, 2015). These, and other, theoretically backed considerations aim to blur divisions at the interface of strategic idea and project execution instead of merely enhancing forward-directive approaches or backwards-seeking clarity that tend to bridge the differences. Conventional considerations here include better communication, greater stakeholder involvement, or monitoring and control (Invernizzi, Locatelli, & Brookes, 2018). Studies that go beyond such considerations and promote integrative theory and practice from novel theoretical derivatives will undoubtedly improve our understanding of projects. This understanding will enhance capability and knowledge in project management as a domain of practice and profession.

B: Transitioning from project construction and development to operation and use.

The second major project transition is when the temporary project organization turns to business operations. This transition is particularly relevant for any Project-Supported Organisation that engages in projects specifically to expand its business infrastructure and market, rather than having projects as their primary operating model (Lundin, 2016). An example is a client/owner organization (G. M. Winch, 2014), for which this transition is the moment of truth when the project will be 'switched on.' While often taken for granted, this transition point can reveal defects in the otherwise flawless project outputs. Some of the issues that cause this situation include, for instance, long development lead times or diverse and changing teams and stakeholders, which means that at the point of handover, ideas on the project outcomes will have been different from when they were initially planned and designed. Examples of operational failures of projects are as varied as are the projects themselves ranging from correctable but rather irritating mishaps (as with the Samsung Galaxy Note 7, which had the unique feature of an incendiary battery) to devastating disasters (as in Space Shuttle Challenger killing all seven crew members).

The world of infrastructure projects delivery is similarly prone to issues of project transition and handovers, as witnessed in the chaotic opening of Heathrow Terminal 5 (Brady & Davies,

2010), otherwise a landmark project by conventional efficiency and innovation criteria. There are equally numerous examples of successful transition into operations (e.g. product launches in manufacturing, public sector services roll-out, successful openings of infrastructure), which typically go unnoticed. At the same time, unsuccessful transitions receive much attention. Concepts such as high-reliability organizations go some way towards explaining operational success in organizations that operate in conditions of high risk and uncertainty when failure would be much more likely common than it is (Weick & Sutcliffe, 2011). Similarly, the concept of Normal Accidents (Perrow, 2011) helps explain and make sense of operational failures in tightly-coupled and complex systems – such as often occur in the transition point between delivery and operations. However, we still have minimal understanding of how projects as temporary organizational forms mesh with the broader processes of operations where the project's artifact eventually lands.

In this respect, we can argue that projects are either justified on the strategic basis of developing new organizational capability, or they expand the existing operational basis. In either case, projects are expected to be mainstreamed into a long-term operational model for the project supported organization. In other words, while projects as temporary organizations are distinct from permanent 'business as usual' organizing because of their pre-designed termination states (Bakker, DeFillippi, Schwab, & Sydow, 2016), the discontinuity between the project and its permanent organization continues to be scarcely understood in conceptual, theoretical and methodological terms (Stjerne & Svejenova, 2016).

Traditionally, the main problem in large-scale and complex projects consists of the fact that different stakeholders in the value chain do not have an incentive to collaborate but to create value only for their part of the value chain—a phenomenon that has been referred to as the 'broken agency' (Henisz, Levitt, & Scott, 2012). This phenomenon has been prominent, especially in the infrastructure and construction industry, where fragmentation has caused longstanding and much-contested performance issues (Flyvbjerg, Garbuio, & Lovallo, 2009; Gil & Pinto, 2018). As the project progresses from delivery into operations and use, the second key transition point is reached, with the main challenge being the assumption that once the project goes through execution phases and out of delivery, it will be successfully completed. As evidenced by examples across a variety of project sectors, project management

practitioners understand that the assumption that 'getting the project over the line will make it' is not good enough.

In software development, the situation is no different: deliverables are developed with a waterfall, agile, or hybrid approach but still suffer from poor user acceptance upon delivery (Hong, Thong, Chasalow, & Dhillon, 2011). Similarly, in organizational and corporate change initiatives, organizations struggle with the operational commencement of completed projects. Needless to say, 'white elephants,' which do not create much value, but do cause high costs, have been observed across a variety of project sectors (Locatelli, Mikic, Kovacevic, Brookes, & Ivanisevic, 2017). In transforming project outputs into operational outcomes (Morgan et al., 2007), consideration is made to delivering documents, providing training, and other preparations for those who will use or manage the project output during the handover from project to operations (Zerjav, Edkins, & Davies, 2018). Organizations initiate the project with anticipated benefits that may fail to realize if the product does not reach operational goals (Seddon, Calvert, & Yang, 2010). Without a successful transition from the project to operations, the resources spent on construction or development will be wasted or increase as changes must be made to accommodate the needs of the organization or preferences of consumers (Pufall, Fransoo, & Kok, 2007).

C: From operations to decommissioning

While all projects reach the end of their useful lifecycle, the final dissolution or decommissioning of the project is particularly relevant in infrastructure projects. Historically, project management research placed little attention on decommissioning, but more recently, academics and practitioners acknowledged that an appropriate process of withdrawing from service, dismantling, and deconstructing requires an understanding of the transition from operations to termination (Kaiser & Liu, 2018). Interestingly, the extended project lifecycle view incorporating the decommissioning phase suggests an inversion of expected project outputs- no anticipated cash flows, revenue generation, or beneficial outputs and a net reduction in opportunities for employment (Ars & Rios, 2017; Invernizzi, Locatelli, & Brookes, 2017a; Parshall, 2011).

The transition from infrastructure operations to decommissioning is characterized by numerous "unknowns and uncertainties" caused by the fact that facilities undergoing decommissioning usually were built decades earlier. During both their construction and operational history, they might have been affected by structural modifications or might have suffered emission of toxic material not systematically or correctly recorded. Hence, during the transition, additional investigations to increase the knowledge of the site conditions are necessary. Unfortunately, time spent investigating and planning between operations and decommissioning is often seen by stakeholders as an unnecessary delay and an incremental cost. During the transition, it is also necessary to determine the end-state of the site. The limited agreement on the final site end-state and the numerous discussions regarding the best way forward might be one of many triggers of social-related challenges. Social-related challenges include public unacceptance and personnel transition. The stakeholders involved must restructure the organization for the decommissioning, avoid downsizing too far or too fast, and plan for the skills and expertise necessary (Invernizzi, Locatelli, & Brookes, 2017b). Overly rapid downsizing in the transition from operations to decommissioning might cause a knowledge vacuum of the facility, triggering a need to rehire or replace specific knowledge workers. This loss strongly relates to the fields of knowledge and information management. Knowledge management refers to "the deliberate design of processes, tools, structures, etc., meant to increase, renew, share, or improve the use of knowledge represented in any of the structural, human and social elements of intellectual capital" (Gilad, 2004). Information management refers to managing the data created daily, how data are retrieved, stored, and shared. These are challenges for decommissioning since when a facility is close to decommissioning, owners rarely hire new personal. Existing workers get older, retire, or pursue better opportunities resulting in less knowledge and less access to historical information from the inception of the founding project and intervening operations.

Concerning social-related challenges, (Invernizzi et al., 2017b) offer guidance on stakeholder management, by highlighting both "macro" social-related challenges affecting the project investigated at site-level, and social-related challenges affecting the delivery of significant projects within the U.K. nuclear-decommissioning industry at a "micro" level. The aspect is that personnel transition and limited public acceptance lead to underestimated personnel costs and the abandonment of the decommissioning projects, respectively.

In summary, the transition between operational life and end-of-life decommissioning projects are a newly recognized and growing challenge that project managers need to address very soon. Though most end-of-life decommissioning projects impact an organization, nuclear, military, and energy are the more complex, lengthy, and expensive with a potentially wide-ranging impact on society (Invernizzi, Locatelli, Grönqvist, & Brookes, 2019). Nevertheless, there is only a limited understanding of how to improve their performance and only minimal project management research on transitioning from operations to decommissioning.

Summary of contributions in this special issue

After identifying three critical project transitions that deserve more attention from project scholars, we were keen to encourage exploration of these 'twilight zones,' where temporary organizations are formed and dissolved, an exploration that warrants substantial theoretical and empirical treatment. After a rigorous peer-review process, four excellent papers have been accepted for publication in this special issue, which we now introduce. We hope that using these papers as a stirring journey and our reasoning as a theoretical compass; more scholars will embark on exploring the twilight zone of project transitions.

Abd Razak, Mills, and Roberts address transitional failures of quality in their paper "A Strategic Approach to Mitigate Operational Failure Across Transitions." An analysis of five cases surfaces capabilities as a significant block to success, not within any particular phase, but in an inability to develop essential capabilities for the operations of the deliverable even after attaining required capabilities during the execution of the project or even earlier during project planning. The authors propose a cyclical model transferring capabilities from strategic requirements to technical project delivery, applying transferred capabilities in functional operations management, and recognizing capability needs of operations as part of the next strategic decisions. Descriptive reasons for failing at each of these steps in the cycle arise from the cases studied.

In their paper "Evolution of Governance in a Collaborative University-Industry Program," Derakhshan, Fernandes, and Mancini leverage an ethnographic study of a university-industry collaboration (UMinho and Bosch) to investigate the transition from the strategic planning

phase to the execution and delivery phase. The authors studied the development of the university-industry relationship focusing on the changes related to the governance structure of this partnership. Remarkable is the choice of the theoretical lens: Evolutionary Governance Theory. Leveraging this theory, the authors showed how the governance structure evolved to become more mature, an essential condition for the management of the program. This paper explains the difficulties encountered by the stakeholders and the reasoning for the effect of regulations and trust.

Considering the project-operations disjuncture, Whyte and Nussbaum approach an intriguingly complex empirical setting of the London megaprojects ecology (Heathrow T5, London 2012 Olympics, and Crossrail) and explore the different temporalities and disjunctures that emerge when a project approaches its long term-use and operations phase. The study, reported in their paper "Transition and Temporalities: Spanning temporal boundaries as projects end and operations begin," emphasizes multiple temporalities in different organizational contexts, shifting futures, and the role of the artifacts of organizing to achieve the temporal boundary-spanning work necessary to bridge the disjuncture. The importance of this study is in expanding the understanding of how the project-operations disjuncture is managed to attain operational readiness.

In the final paper of this special issue, Addyman & Davies leverage a longitudinal autoethnographic empirical study (the Bank Station Capacity Upgrade in London) to explore the life cycle transitions through routine dynamics. The first author was the client project manager, while the senior management team transitioned from the front-end definition phase to the execution phases. Usually, these two phases are perceived as distinct, with a clear beginning and end. The authors suggest a fresh view of this predefined time boundary between life cycle phases and by discussing the dynamic and emergent nature of transitioning through the identification of a five phases' process model of transitioning.'

Potential for future work

Papers in this special issue successfully approach the discontinuities that characterise project transitions through a variety of methods and conceptual angles, setting the groundwork for further applying theoretical concepts and ideas from proximate fields as well as

methodological innovations to approach the complex transitions issues. These special issue contributions demonstrate the richness of project transitions as a research area. We encourage future research looking at the diverse aspects of transitions by expanding the theoretical and methodological apparatus. We see the potential of this future work at several levels.

First, future research can focus on the organizational paradox of short-term delivery of projects in contrast to long-term survival or growth of organizations. This contrast can be considered through investigating artefacts (e.g., management tools and methods), cultures (e.g., hierarchies and participation), temporalities (Brookes et al., 2017), and values that differ in projects and operations as two distinct organizational contexts. In this way, the boundary is where the two worlds collide – where actors act, think and look different, and the process of moving across this boundary resembles a liminal zone (Borg & Söderlund, 2015), not part of either the departure or destination worlds (Czarniawska & Mazza, 2003). Further, future work should continue looking at the within-project transitions along the lines that this special issue begun exploring, but very importantly, future research should continue exploring the broader transitional role of projects to achieve different organizational, policy, and even societal states such as zero-carbon, reduction of poverty, or global inequalities.

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