A METHOD FOR PRESCRIBING PSYCHOLOGICAL OWNERSHIP: A PROJECT HANDOVER CASE STUDY

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ABSTRACT

Among the topics of psychological ownership (PO) within current literature, a significant gap exists in understanding PO within a prescriptive lens. This study will examine how instigating the PO mapping method will help us understand how the PO mapping method can support an ownership journey. In addition, we want to see how we can create a prescriptive ownership structure that one follows rather than using the tool as a descriptive method. To do this we will follow a Research Through Design methodology and test the PO mapping method in an organisational case study. We believe that the PO mapping method can help frame and guide organisational project handovers. We want to examine the factors that influence the parties (project teams) emergence and relinquishment of ownership, and how that affects the feeling of ownership of a project over time. Based on this understanding we will derive prescriptive phases to integrate into our PO mapping method. Thus this study demonstrates how the PO mapping method can be used in different contexts to support and provide prescriptive guidance for ownership journeys.

Keywords: Project management, Sustainability, Design methodology, Psychological Ownership

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1 INTRODUCTION

Individuals can develop relationships with the objects that surround them. One type of relationship that can be developed is feeling a sense of ownership over an object. This feeling may occur with objects legally owned (my book), shared (my seat on the bus), or abstract (my idea, my organisation, my city). Such possessive feelings are critical for understanding everyday interactions such as buying, gifting, lending, borrowing, stealing and more (Snare 1972). For instance, feelings of possession have been linked to withholding ideas during ideation sessions due to a fear the ideas would be stolen (Baer and Brown, 2012), higher valuation of goods linked to the endowment effect (Shu and Peck, 2011) and greater care for the environment (Peck and Luangrath, 2018).

Psychological ownership (PO) theory describes the motives (the why) and routes (the how) that lead to feelings of possession for a given target (Pierce et al., 2003). This makes PO theory a useful framework to guide design interventions related to ownership (Baxter and Aurissichio, 2018) and a basis for evaluating interventions in a wide range of contexts (e.g., Peck and Luangrath, 2023). Recent work on psychological ownership (Cedeño et al., 2022) has presented a method for mapping ownership changes over time as a means of creating a descriptive understanding of ownership paths and how such paths could be improved similar to user journey mapping. An example of this would be to map out how someone takes ownership of a new product and how interactions can be created to improve the progression of that ownership relationship (e.g. through mass customisation). However, a prescriptive journey is often desired, i.e. an ideal progression through various steps to ensure a successful development of a desired feeling of possession (or lack thereof). In other words, moving from a description of a journey to a prescribed journey to ensure more consistent and predictable ownership outcomes.

This study extends prior work to show how the PO mapping can support the development of prescriptive ownership journeys using a Research through Design (RtD) approach. Such an approach grounds the use of the existing tool (Cedeño et al., 2022) in real examples to understand both the general approach but also learnings of the implementation of the approach. The context explored for ownership mapping is that of an organisational project handover. For instance, how one group can hand over a project (i.e. transfer a feeling of ownership) to another group based within or beyond their organisation. This context was explored with several practitioners in various sectors and two particular cases where the tool was applied. The work revealed five general phases followed in a successful ownership hand over. These phases were observed, coded, and then synthesized through a descriptive exploration of ownership mapping with participating organisational teams. This resulted in the initial formation of prescriptive phases that act as a bespoke boundary tool for organisational teams to manage actively to create more successful handovers. We define these phases as sustainability phases because the prescriptive tool was found to foster ownership actions that help maintain or relinquish a user's motives and routes that affects their feeling of stewardship, endowment, and efficacy towards a target of ownership over time. In short, sustainability phases are periods in time that prescribe efforts to help sustain an ideal state of ownership. Based on our work, a method of developing prescriptive ownership mapping is presented with a specific context of organisational project handover. This context has helped us better understand the temporal aspect of an ownership journey. From this knowledge we believe our prescriptive tool is generalisable and can be applied to and impact many fields specifically in the design of interventions.

The rest of the paper is outlined as follows. We first present and explain the background of the framework for psychological ownership and ownership mapping. Next, we elaborate on the research through design methodology used in this study and give context to project handovers. We then present the method for creating prescriptive ownership maps and the results of the organisational project handover mapping explored here before summarising the conclusions of the work.

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2 BACKGROUND

We cultivate strong feelings of ownership for both material (books, cars, etc) and immaterial (concepts, organisations, etc) possessions. Such a relationship is a lived experience and can form the basis of many of our (inter)personal interactions. Pierce and colleagues have formalised PO theory that posits three motivations of PO (efficacy and effectance, enhancing self-identity and having a place to dwell) and three routes to developing a feeling of ownership (controlling the ownership target, investing the self in the target, coming to intimately know the target) (Pierce, Kostova and Dirks, 2003). These motives and routes help provide a theoretical grounding for what is often an intuitive basis for interventions relating to PO.

Most research into PO is descriptive and considers ownership as measured at given times to compare within or between intervention groups. For designers, understanding and designing for these possessive feelings becomes a need and opportunity particularly when thinking about trends around designing for immaterial objects (e.g., roles and responsibilities), objects with multiple users (e.g., hotdesking and the sharing economy), and thinking about object lifetimes (e.g., product care during use and onboarding in organisations, Baxter and Aurisicchio, 2018). The design literature includes some prescriptive research into the use of PO theory. This includes principles to afford PO and product attachment (Baxter et al., 2015), the application of PO to topics such as the circular economy (Baxter and Childs, 2017), a PO based design tool to close the resource loop in product service systems: A Bike Sharing Case (Ploos van Amstel et al., 2022) and various ways in which using this knowledge might be applied within a design context (Baxter and Aurisicchio, 2018). Through all this work there is an acknowledgement of the importance of looking at how and why PO develops through time as various interactions occur between a user and target object.

In many cases, especially those relating to design opportunities, a more useful approach would look at PO as it changes over time similar perhaps to a journey map. This temporal variation in ownership feeling results in a PO path as pointed out in previous work by Baxter et al. (2017) who have depicted common paths of psychological ownership for illustration purposes but stopped short of describing a method for developing paths. A method for developing these psychological ownership paths was later developed by (Cedeño et al., 2022). In its most basic form, PO mapping starts by compiling a series of user states and actions into a timeline skeleton. Next, the skeleton is fleshed out with user thoughts and emotions to create a narrative over time. Finally, that narrative is condensed into a visualization used to communicate insights that can support evaluative and generative aspects to design processes. This is because PO maps can be an effective communication tool within a group like an organization and efforts on the right forethought and outcomes. PO mapping is like a journey map for designers as they both are used to map the relationship between a user and its target over time and across all channels on which they interact. A PO map addresses the "how" and "why" of ownership overtime and enables deeper understanding of experiences, phenomena, and context for a user's feelings of ownership. This information can help designers find areas where they can insert a design intervention or design improvement. As a qualitative research tool, a PO map helps designers ask questions that cannot be easily put into numbers; it also visualizes the user's ownership journey which enables designers to understand the time dependent quality of ownership more deeply.

This paper takes our descriptive tool and extends our method towards developing prescriptive ownership maps through an organisational case study focused on the context of a project handover. We are choosing to look at an organisational project handover context because it not only analyzes the transfer of ownership within two parties, it effectively grounds our understanding of prescriptive ownership journeys over time. This organisational focus tackles many objectives we want to fill. Specifically, it will allow us to test the PO mapping method outside academia which will help us better understand how immaterial objects (e.g., roles and responsibilities), objects with multiple users (e.g., management teams), and object lifetimes (onboarding and offboarding in organisations) can be guided over time. These objectives have massive implications for design. Although we are focused on a management context, we believe the knowledge gained from this case study will

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extend our knowledge and enable us to better place the significance of this work to designers dealing with systems level thinking, transition design, sustainable design, and codesign challenges.

Organisational studies have published much on project hand overs. For instance, literature acknowledges that over time projects move through transitional periods; as they move through these periods, associated responsibilities change (Aldrich et al., 2015). This change or transition includes the project's responsibility, ownership, and decision-making structure (DeTienne, 2010). These transitional periods or project handovers can happen both within and between organisations and are significant events in the lifecycle of change management and innovation teams (Aldrich et al., 2015). However, there is little understanding of these significant processes and further research on project handovers is needed to help promote and maintain sustainable practices (DeTienne et al., 2015). Sardeshmukh et al. (2021) states that "project handovers and ownership shifts are emerging areas of research and that psychological antecedents of such intentions are understudied." The PO mapping method can help frame and capture the project handover evolution and psychological antecedents that are necessary to address for a sustainable project. Thus, this paper ultimately has two aims. The first, as stated, is to develop a method for creating prescriptive ownership maps. The second aim is to apply a prescriptive PO map to support the effective handover of projects between teams. The next section will go over our process in how we set out to tackle these aims.

3 METHOD

This work follows a Research through Design (RtD) methodology. RtD provides a framework for the generation of new knowledge through the critical analysis and documentation of design activities that result in an improved end state (Stappers and Giaccardi, 2017). As such, this approach benefits from learning through a process of doing. As this method sits between research and practice, the practical outcome is critical but so is a structured approach to conducting the work. Zimmerman et al., (2007) proposes four requirements for effective use of RtD, namely: process, invention, relevance, and extensibility. Process relates to the reproducibility of the steps taken so that the work can be reproduced; invention focuses on the originality of the approach and solution in addressing a specific situation; relevance refers to the demonstration of why the desired end state is preferred; and extensibility provides ways to broaden and build on the resulting outcomes and knowledge in new ways (Stappers and Giaccardi, 2017). We situate our RtD methodology within a double diamond design process to organize our thinking and findings of the study. The double diamond is a structured design approach to tackle challenges in four phases: Discover/Research— insight into the problem (diverging); Define/Synthesis — the area to focus upon (converging); Develop/ Ideation— potential solutions (diverging); Deliver selecting a single solution that works and preparing it for launch (converging) (Council Design, 2015). Each phase produces both design outputs and research outputs as a result.

The brief set for this design project is to understand how PO is transferred between parties within a project context and how such a transfer can be supported. Specifically, we will do this by focusing on project handovers which sustainability matters perhaps most: project ownership. The brief has been explored with two main design contexts: large global charity handing over the delivery of health programme to a local charity and a UK-based organisation handing over a legacy governance to a new entity. These contexts were chosen for their access to users and relevance to the context in general. Though distinct, the pattern in these contexts speaks to several other transitions including the core of much of innovation management which requires a hand over of project work. Overall the objective remained consistent within these cases: how best can we manage a project handover. The case was selected based on certain criteria: its theoretical suitability for illustrating a project handover need; the contextual suitability for an ownership lens; and practical suitability, including accessibility and completeness of the case. The case project ran in four stages: (1) identifying handover teams needs and first ideas, (2) finding the specifications for the concept, (3) product development, and (4) testing. The four-stage approach was developed specifically for this project. The companies had no prior experience with external facilitation in the handover process. The observations took place during various in person visits in the first stage of the project, which was the most open-ended part, and thus the most suitable for

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the purpose of our research. Since this approach allows for observation of both divergent and convergent phases, it was suitable for the study as it helped to obtain a more complete picture of the preceding and succeeding team role in different aspects of the project handover process. Participants in the above design case studies included current project managers, project owners, nonprofit organisations consultants, and prospective local community project teams, managers, and associates. For the clarity of this this study we categorize these participants into two groups: the succeeding team and the proceeding team. This grouping helps clarify who is relinquishing and taking ownership throughout the project handover context. These participants were interviewed, observed through field work activities, and participated in workshops where they actively used our mapping tool prototype. The researchers immersed themselves in the context through several field visits, numerous conversations with key stakeholders and a thorough review of existing material. The participants were aware of the researcher's presence in the room during the workshops; however, it has not been reported as disturbing by any of them. While it might have had a minor influence on the process, it was constant throughout all the observations, workshops and interventions, and thus we consider it negligible. Results from the work have been anonymized in this paper to keep confidentiality of various individuals who contributed. Based on this methodology, we were able to understand how mapping can be deployed in a prescriptive mode with a particular focus on how it is adopted and understood in an organisational context to support project handovers. Understanding how the PO framework aligns with the project cycle on motives, routes and targets of ownership during their respective project handover is important for an organisation's social sustainability objectives. We believe that through this study we have a better understanding of how to prescribe ownership transitions and align key elements all organisations need to standardise for successful project handovers. The next section describes the general process of creating a prescriptive ownership process before reporting on the specific mapping produced for the project handover context.

4 RESULTS

Phase 1 discovery: exploratory research

The objective of the discovery phase was to gain an understanding of the work done within the fields of management, business, and innovation before conducting interviews and co-design activities. In addition, we also reviewed codesign/co-ownership and transition design literature to get a better understanding of work in this space. Reviewing the literature within these fields helped us better grasp how project handover manifest within organisations and what is already in place to handle such transitions. This objective was achieved through an extensive focused and systemic literature and practice review. ResearchGate and Google Scholar electronic databases from 2010 to 2022 were searched. These were chosen because of the management, transition, and psychological availability that encompasses innovation management during transitions periods. Search terms were ‘project handover’, ‘exit strategy’, ‘change management’, ‘transition studies’ and ‘psychosocial consequences’. The ResearchGate host produced 167 results from the search criteria, while Google Scholar produced 200, for a total of 367 articles. Articles were rejected if it was determined from the title and the abstract that the study failed to meet the project handover and transition context. Any ambiguities regarding the application of the selection criteria were resolved through discussions between all the researchers involved. These articles were analysed to determine what methodologies are used to guide a project handover. The key learnings that were drawn from this phase include a database of different conceptual protocols for project handovers. We identified major gaps that are present within these protocols. These include a lack of prescriptive organisational and methodological considerations for project handovers. In addition, the roles and responsibilities of a project handover are not clear or delegated correctly. This makes it harder to identify what the drivers and barriers of a project handover are. With this direction we knew that we could better understand where and how the PO mapping method along with the motives and routes of PO can address the gaps to help a project handover transition better.

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Phase 2 define: proposition design and development

The objective of the proposition design and development phase was to understand the social dynamics and the established practices of management teams during a project handover. In addition, we wanted to learn the conceptions of ownership during a project handover within management teams. To do this we interviewed 10 subject matter experts (project managers, local charities, etc) to help us better understand the transition of ownership of a project while also letting them use the PO mapping tool to provide insights to develop the framework. We observed and learned several actionable insights and learnings which laid the foundation for a descriptive understanding of sustainability phases for the PO mapping tool. We define sustainability phases as are periods in time that prescribe efforts to help sustain an ideal state of ownership. A significant learning is that a project handover is a joint effort which includes two ownership journeys: the Preceding team (team handing off project) and the Succeeding team (team taking on the project). Both journeys led to insights and patterns that were then translated into descriptive phases that mirror the stages of a project transition identified from both the systemic literature review and interviews. This can be seen in Figure 1 and will be defined more fully in Table 1 in the next section.

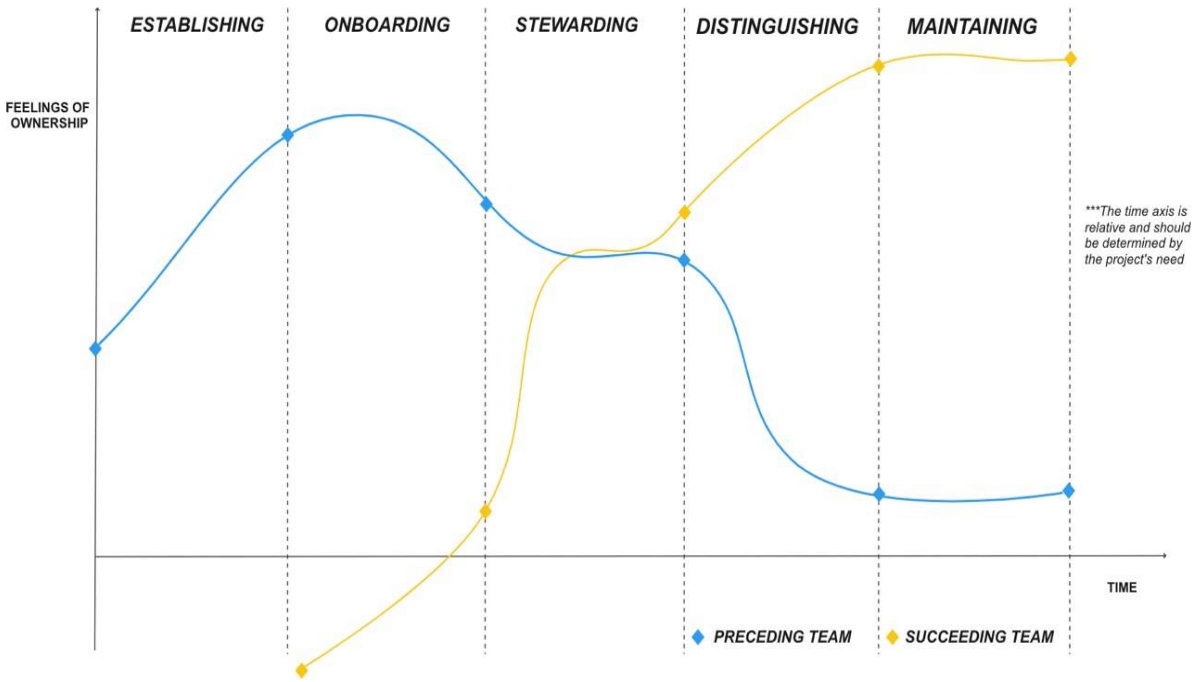

Figure 1. A Prototype of a PO map with sustainability phases

Phase 3 develop: proposition development

The objective of this phase was to take the descriptive understanding of the developing phases and understand how we can help guide people through them with key actions. The actions highlight the motive and routes of PO. This was achieved through conducting eight interviews and holding four workshops with stakeholders. We observed several actionable insights from multiple perspectives and identified patterns that were both descriptive and prescriptive. From this we were able to provide the beginning of ownership actions to help prescribe steps to fulfil each phase. The motives and routes of ownership start to emerge but continued upcoming work on this will refine these better. This is described more in Table 1 below.

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Table 1. Description of sustainability phases with accompanying prescriptive ownership actions

Phase Name	Definition of Phase	Key Ownership Actions
Establishing	This phase starts by positioning the issue of the project handover as a point of central importance for the organisation. The preceding team establishes key metrics and standards to monitor and evaluate the project handover and succeeding team's success. The phase ends with the successful identification of the ideal candidate and readiness for succeeding to begin.	**Preceding team actions:** Must dedicate ourselves to the project handover. Metrics and standards need to be established to monitor and evaluate the sustainability of the project. To have adequate control and create meaningful impact to the project we need to identify the best team to transition management to.
Onboarding	This phase helps initiate the team onboarded so that they are familiar with the role and responsibility of the project. The phase ends with proliferation of sustainability commitment beyond the single point of instigation (the preceding team) and feelings of co-ownership are formed.	**Preceding team actions:** The team must provide a welcoming environment to show who they are as an organisation and make things easy and accessible to learn. **Succeeding team actions:** Must be open and committed to learn and dedicate time to become a key player in taking on control and responsibility of the project.
Stewarding	This phase demonstrates shared level of cooperation on institutional leadership, vision, direction, for the project handover. The end of this phase is marked by organisational processes, structures and decision-making roles and responsibilities shifting towards the onboarded team initiating a new cultural management context. The preceding team is slowly phasing down involvement.	**Preceding and Succeeding team actions:** Each team shows dedication, passion, and intelligence on the project to leave a significant impact to uphold the project vision. Sustainability commitment has moved to a broader range of commitments to the onboarded team helping shape their new identity, strong knowledge, control, and time. The relinquishment of control, time, investment and overall management identity of the preceding team starts to phase down.
Distinguishing	This phase manifests in new organisational leadership driven by the succeeding team where they demonstrate full project ownership that distinguishes them from the preceding team. Significant expansion of active engagement across the onboarded team is transparent. The phase ends with the development of new capacities, attitudinal shifts and confidence of the onboarded team. The phasing down of the preceding team should be near completion.	**Succeeding team actions:** Must demonstrate their efficacy and effectance and project knowledge to show their control and leadership identity of the project. **Preceding team actions:** Must evaluate and determine if the succeeding team meets their metrics of success. The relinquishment of control, time, investment and overall management identity of the preceding team starts to phase down drastically.

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Maintaining	This phase helps continue that narrative of how the handover should be sustained and maintained over time. This phase doesn't end but is constantly monitored. The transitioned project management is deliberate about the process, the pace (rate of change for complex systems), the volume (the number of people involved and the amount and impact of projects) and diversity (the increase in interaction between systems).	**Preceding and Succeeding team actions:** Each team must continue their involvement and impact by discussing the project legacy and sustainability. There is continued strategic interaction and alignment between human behaviour, professional capacity, and organisational systems from both teams.

The final section will go over the ongoing development and refinement of the sustainability phases and the corresponding actions associated with them.

Phase 4 delivery: proposition development

The objective of the delivery phase was to test the phases with the organisations to better define the paths of ownership identified and better scale the journey into sustainability phases. This was achieved through an iterative process with a final course of four interviews and two workshops with the global charity and UK development organisation. This effort is still in progress. Another two organisation have been identified and has met our vetting criteria. Interviews and workshops with them are underway. Overall, what we learned is that these phases and the prescriptive ownership actions are still at the beginning stages. They need refinement and clearer application will need to be more transparent and accessible. More work and future studies will help mature these findings, which will be discussed in the next section.

5 DISCUSSION

Because of the critical role that PO plays within organisations and general wellbeing of people going through a project handover, and their subsequent effect on the success of the project transition, this work has important implications for managers and organizations alike. This research paper has shown how to apply the method for PO mapping within an organisational context. The mapping method has been tested with a number of cooperating organisations to learn how management teams understand and use the mapping method. In addition to this we learned how PO underpinnings emerged within project handover and how it affected the management teams. The organisational context helped us better understand what marks a pivotal period and associated interactions within an ownership journey. This understanding is a significant contribution to our prescriptive mapping tool because it helps define notable transition moments over time and how best to prepare and anticipate these moments. Our synthesis highlighted ownership route and motives reflected in management actions that marked key moments that help facilitate a handover. From this analysis, we have created sustainability phases that help guide the associated ownership actions to help teams better manage the project handover. We believe sustainability phases help scaffold ownership over time. It also helps break down and group key moments and actions that strengthen or relinquish ownership. Thus, this work suggests that we can take the PO mapping tool from a descriptive tool into a prescriptive tool with the integration of sustainability phases. In this discussion we reflect on the implications and contributions a prescriptive lens would have on PO mapping method. This includes the impacts on co-ownership, how the phases can be integrated for generalisable use, the limitations of this work, and possible directions for future work. By applying the PO mapping method within an organisational context, we had a first-hand look into how the mapping method helps facilitate co-ownership. From our extensive literature review, we noted that this is the first documented co-ownership mapping method to our knowledge. The application of the PO map within a project handover context was useful to place because it forced us to think of the

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different states that are involved in a co-ownership relationship. Because we are focused on the transfer of ownership between two entities we understood the relational factors at play within an ownership journey and how we can uphold the maintenance of ownership between them over time. The sustainability phase not only prescribes guiding actions, it helps teams align and thus facilitates co-ownership. The prescriptive PO map with the sustainability acts as a central boundary object for each project team and for the project handover process. The PO map and sustainability phase help each team zoom in and out of the handover. It helps them stay accountable of what actions need to be exhibited to hit an ownership phase. In addition, the PO map and sustainability phase helps identify the struggles of adoption and relinquishments of ownership, highlight the moments of opportunity and intervention, and communicate each step of the way. In addition to how this work contributes to a co-ownership context, emphasis on the tool’s generalizability should be addressed as a notable contribution as well. Though our work was placed in a project handover context, we believe that the main learning, guiding an ownership transition, is mutable and able to fit into any transition study context including design. For example, we believe a thorough understanding of an ownership transition can help not only management studies but also design and transitions studies in better design for product attachment, behavioral change, and sustainability efforts. We also believe general life transitions can be addressed with our tool extending to fields such as health maintenance, community building, and governance practices. Among the most significant examples of engineering design's application to this work in the experience of the authors have come from the space of product care. For instance, a global appliance company has been interested in transitioning to the sharing economy and leasing products to companies rather than selling outright. In this case, the technology is functional at a base level and the business model has been vetted but the viability of the transition relies on users of the appliances feeling ownership for a product they do not legally own. In such case, the sense of ownership they had requires a thoughtful approach to transferring ownership from the manufacturer to the users of the appliances. The phases of ownership thus helps both companies align and focus on the transfer of ownership as the central vision. The teams can then work together and foster a co-ownership relationship guided by our tool. To put this in a more tangible design example, we can see how a prescriptive PO map can help designers spot ideal interventions points to design an application to help patients manage their health condition. Thinking of a patient’s health journey from the diagnosis phase till monitoring of the disease, we can easily see how the the main sustainability phases can translate into ways a designer could impact the design of the app. For instance, the sustainability phases, Establishing and Onboarding, can help the patient better self-identify with the diagnosis and provide intimate knowledge of their diagnosis. Thus, the identified phases from his study can help designers know how they can inform patients with what information should be displayed at each phase, what actions should be provided, and where personalisation and customisation could be most beneficial. The PO map with the addition of sustainability phases is flexible and is not time dependent. This allows for interdisciplinary applications of the tool. Each phase can take as long or short as the team desires or as needed based on the context of the application. In analyzing project handovers and transition study literature, we saw many types of journeys that resulted in similar ownership transition patterns. For example, a common ownership transition journey archetype identified moved from low to high or from high to low inflection points. This archetype describes how ownership can rise and fall and vice versa over time. Seeing these trends across the literature and in practice helped us highlight activities and practices for successful transition and ownership practices that the phases help prescribe. Though this paper talks about the advantages prescriptive ownership mapping within organizations, there are limitations with the tool that should be addressed. The main limitation is that the number of organisations and designers using the method is relatively small. With our sample size of two organisations, it has been difficult to draw significant conclusions from the method. In addition, we confined the application of the tool solely within a very niche area of organisational processes. We need to better understand what the constraints are within a project handover, how this affects the creation and relinquishment of ownership, and how this can better be made to a prescriptive tool for general use. In addition, a firm perspective for who this map will be useful for needs to be solidified. Having a high adoption rate with a low barrier to entry and understanding is a future goal to help make our tool accessible. We also want to consider how an ownership transition context may or may not have certain actions required for success or metrics to qualify the successful management of ownership over time. Future studies will address these concerns by increasing the sample size of participating organisations and applying the prescriptive PO method with the phases in other domains. Two other organisations have been identified and are currently being worked with to add to our data collection.

6 CONCLUSION

In this paper, we used a Research through Design methodology to demonstrate how the method of PO mapping can be used within an organizational case study to support project handovers. In addition, we have demonstrated how the mapping method can be turned from a descriptive tool to a prescriptive tool. We presented the theoretical and contextual background to the method. We then presented and demonstrated the method through an organisational context. Finally, we discussed the implications such a method has for design. In our research, PO mapping has proven to be useful in providing guidance for an ownership journey, specifically a project handover. Within a project handover we saw how PO mapping can help designers understand the transition of ownership with roles and responsibilities, and offboarding and onboarding in organisations. It does this by uncovering moments of interaction necessary to understand the PO underpinnings happening throughout the project handover. These moments were then condensed and translated into sustainability phases to help designers and project teams align mental models, organise relevant guidelines and information, synthesise roles and responsibilities, communicate questions and concerns, and ultimately reveal opportunities to strengthen and relinquish feeling of ownership throughout the project handover. The PO method and the sustainability phases have proven to be easily understandable, flexible, and useful in organisational contexts to support sustainable practices. Future studies may refine the method and its phases as well as use the method to explore future work in quantitative ways and extend application into other domains such as health, product attachment and etc.

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