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# What kind of futuring is transition-oriented futuring? Conceptualising and expanding notions of futuring in transition design

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**Abstract:** Transition design employs futuring to navigate change towards more sustainable and just futures. Although the development of transition design has been informed by futures studies, it could benefit from more detailed investigation of its futuring practices in relation to established concepts and approaches. A further exploration of, and integration with, futures studies offers opportunities to develop more conceptual and practical guidance. This paper aligns transition-oriented futuring with Slaughter's levels of futures work (1996b, 2002), and Amara's (1981) and Björeson et al.'s (2006) scenario typology to better understand what kind of futuring transition design engages in. An expanded applied approach is proposed to support a more rigorous and comprehensive practice to transition-oriented futuring by learning from established knowledge in its neighbouring field.

**Keywords:** transition design, futures studies, design futures, critical futures

## 1. Introduction

Transition design employs the co-creation of desirable visions to motivate and orient change towards more sustainable and just futures (Irwin, 2015). Its approach to futuring has been informed by a range of futures-oriented practices, situated at the growing intersection between design and futures studies (Candy & Potter, 2019). As an emerging practice, there is opportunity for transition design to further its futuring approach by engaging more with established conceptual frameworks and practices from futures studies. To support a more rigorous practice of transition-oriented futuring, I position it within the domain of 'critical futures studies' and review transition design's futuring activities within a typology of scenarios, leading to an expanded proposal for a more holistic futuring approach. In alignment with transition design's transdisciplinary approach which promotes an evolving set of practices,



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rather than a set procedure (Irwin, 2018), it should be foregrounded that the aim of this paper is not to present a definitive process, but to propose lenses through which to understand transition-oriented futuring and suggest practical advances through further integrating with futures studies.

Transition design “aspires to draw on a range of foresighting techniques that enable stakeholders to co-create compelling visions of long-term, lifestyle-based futures” (Irwin, 2018, p. 976). The practice(s) of futuring in transition design, hereby termed as ‘transition-oriented futuring’, is defined as the application of futures studies, foresight, and other associated modes of speculative practice, with the primary intention of creating visions to inform transition efforts towards more sustainable and just futures<sup>1</sup>. It is acknowledged that new tools and approaches to support the envisioning of such futures are needed, and so far, transition design has borrowed some from futures studies (Irwin et al., 2020; Lockton & Candy, 2018; Rohrbach & Steenson, 2018; Scupelli et al., 2016). A variety of tools have been employed, but transition design has yet to further establish its own futuring approach beyond borrowing from commensurate practices. As an emerging space, there is a “need for work in favour of the field to support, improve, complement existing theoretical foundations and develop shared understandings and alignments” (Gaziulusoy & Erdoğan Öztekin, 2019, p. 13). It has been highlighted that although approaches from adjacent fields show great merit, there is still work to be done in adapting approaches more effectively for the goals of transition design (Rohrbach & Steenson, 2018). Beyond simply adopting practices from futures studies, it would benefit transition design to more clearly articulate how to better integrate them within its approach.

Transition design and futures studies both share origins as practices with emancipatory and transformative ideals, and as the development of ‘design futures’ in recent years highlights, futures studies and design share many commonalities in both theory and practice. This presents opportunities to learn from each other. Transition design has been critiqued for lacking methods to envision the future (Van Selm & Mulder, 2019), but futures studies readily offers a rich basis of suitable practices to do so. In this paper I approach transition design from the lens of futures studies to better clarify what kind of futuring work transition design does, and how it might better engage with the future. In doing so, I am not proposing methods as Van Selm and Mulder indicate a need for, but discuss considerations that can help to identify suitable methods that futures studies could offer. This paper sets out to draw parallels between transition design and futures studies by presenting an account for transition-oriented futuring in relation to established frameworks in futures studies. As a field with no clear and often contested definitions and boundaries, futures studies encompasses a transdisciplinary range of concepts and practices. However, there are some key frameworks, concepts and

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<sup>1</sup> This distinguishes transition design’s use of futuring from the broader range of applications and objectives in the futures field. Namely, separating it from approaches used to maintain the status quo of the present, e.g. corporate strategic foresight, which often work in opposition to transition.

approaches with which transition design demonstrates clear alignment, offering opportunities for expanding its futuring remit. To better understand transition-oriented futuring and expand its practice, this paper asks two questions of transition design, answered by futures studies, **1) What kind of futures work does transition design involve?** and **2) What types of future scenarios does transition design envision?**

To begin, I review established notions of futuring in transition design to form a starting point in conceptualising transition-oriented futuring. This is followed by an introduction of, and integration with, a range of key concepts and approaches from futures studies. Positioning transition design within Slaughter's 'depths' of futures studies framework (Slaughter, 1996b, 2002) offers insight into the orientations and attitudes of its futuring activities. Typologies proposed by Amara (1981) and Börjeson et al. (2006) offer insight into different scenario types envisioned in transition-oriented futuring. In drawing these parallels with these frameworks, I propose an expanded practical approach aligned with those well-established in futures studies.

## **2. How does transition design currently practice futuring?**

To establish a starting point, I will first discuss how futuring is currently understood and practiced in transition design. Whilst this paper's framing of transition design centers on the approach proposed by Irwin et al. (2015), the discussion also attends more broadly to 'design for sustainability transitions' (Gaziulusoy & Erdoğan Öztekin, 2019). Within this transdisciplinary space, there are challenges to reviewing and characterising existing work given differences in how similar concepts and practices are discussed. It is also acknowledged that there is a rich basis of work in the sustainability transitions discourse which are not necessarily framed through the lens of design or futures studies. Recognising these limitations, Irwin et al.'s proposal presents the most comprehensive account for an established conceptual framework and practical approach. As such, this provides the most helpful foundation to which to build upon.

'Visions for Transition' is a cornerstone of transition design, promoting the co-creation of desirable visions as a motivating and guiding force for change (Irwin, 2015). Designerly tools, methods, and skills aid in the creation and communication of futures. As currently conceptualised, transition-oriented futuring is broadly construed by a few established guidelines seeking to bring together a range of evolving practices. As a developing practice, there is much opportunity to present a more rigorous approach to visioning informed by futures studies.

Various design and futures-based practices have been drawn from to diversify approaches in transition design. Adopting design futures approaches such as speculative critical design (Dunne & Raby, 2013), design fiction (Bleecker et al., 2022) and experiential futures (Candy, 2010), these futures can be materialised and communicated. Lockton and Candy (2018) presenting a 'vocabulary for visions', put forward a range of concepts and invite more comprehensive integration with futures-oriented approaches. Garduño García and Gaziulusoy (2021) further integrates experiential futures with the everyday aesthetics, by taking cues

from literary studies, cognitive psychology and neuroscience. Srivastava and Culén (2018) present a practice integrating interaction and service design with social practice theory. Zaidi (2017) leverages science-fiction narrative and worldbuilding to enrich transition scenarios. These examples showcase the variety of futuring practices explored in transition design. Crucially, development is needed through further empirical insights. Established through their practice, Irwin and Kossoff (2022) outline an ‘Applied Transition Design Approach’, summarised in Figure 1 below.

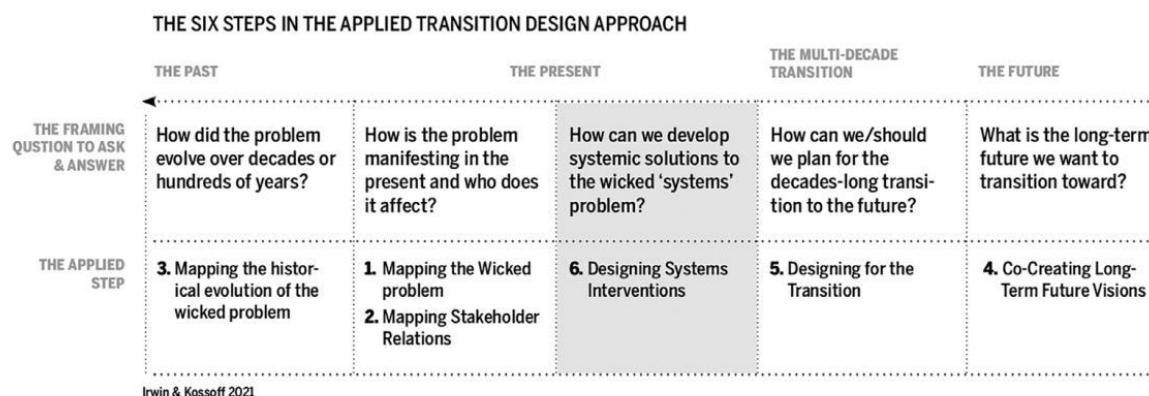


Figure 1 The Applied Transition Design Approach (Irwin & Kossoff, 2022).

In addition to the applied approach, transition design has discussed several key characteristics of transition-oriented futures (as outcomes) and transition-oriented futuring (as a practice). To establish an understanding of them as currently conceptualised, the following characteristics have been identified.

### 2.1 Transition-oriented futures are:

#### **Motivational, informative, and evaluative**

Transition visions are proposed as compelling shared, long term scenarios of desirable futures that inform, inspire and align transition projects in the present towards change (Irwin, 2015). Visions act as both a magnet and compass to guide transition initiatives along a transition pathway. They catalyse and motivate change, as well as acting as an evaluative measure in the process of transitioning (Tonkinwise, 2014)

#### **Critically different**

Transition design is critical of the ways in which life in dominant modern society is organised, and the role of design in reinforcing unsustainable ways of living (Tonkinwise, 2015). Transition visions seek to explicitly (re)imagine ways of living in which lifestyles and fundamental structures and systems of the world are reconfigured in more sustainable ways. By critiquing the status quo, and nurturing futures literacy (Miller, 2008) and futuring as a social capacity (Slaughter, 1996b), participants involved in transition-oriented futuring are supported to

suspend disbelief about change and imagine living in a world beyond current configurations (Irwin, 2018).

### **Situated in everyday place and contextually aware**

Transition visions propose the “reconception of entire lifestyles where basic needs are met locally or regionally” (Irwin, 2015, p. 233). Grassroots-based futures emerge from local conditions, rather than presenting universalised, ‘one-size-fits-all’ scenarios of the future. Drawing from ‘cosmopolitan localism’, transition visions depict “small, diverse, local, and place-based communities that are global in their awareness and exchange” (Irwin & Kossoff, 2022, p. 230). Transition-oriented futures are considered holistically through different domains of everyday life, from the household through to planetary scale. A grounding in a specific context means that futures envisioned will be different based on relevant and situational stakeholder perspectives.

### **Attuned to the everyday experience**

Transition design involves the transitioning of most, if not all, aspects of present-day modern life towards more sustainable modes of living. To do this requires top-down, macro change, in combination with bottom-up, micro change. The relationship between these two approaches in transition must be better clarified and integrated, and with greater attention to the latter argued as the basic context of change, transition-oriented futures attend to people’s daily needs, experiences, norms and practices (Garduño García & Gaziulusoy, 2021; Irwin et al., 2021; Matter & Yu, forthcoming; Srivastava & Culén, 2018). This involves envisioning possibilities of how people could live differently and more sustainably, within new forms of societal organization. Attunement to daily life allows non-expert participants to better grasp transitions from an empathetic and relatable perspective, as opposed to abstract, high-level systems change detached from everyday experience.

### **Plural and diverse**

Established within unique, contextualised places, transition design recognises and engages with the diversity of worldviews, perspectives and experiences amongst stakeholders in wicked, complex systems. Some important aspects of this include - engaging marginalised stakeholders who have been historically excluded from design decisions, challenging the dominant neoliberal and colonialist power structures which perpetuate current conditions, and in particular, when proposing visions, articulating and finding ways to manage the political plurality of differing desires for the future. This critical recognition aligns transition design with broader, ongoing movements in design including, e.g. greater democratic participation, inclusion and decolonisation.

## 2.2 Transition-oriented futuring is:

### **Participatory and collaborative**

Transition design places stakeholder involvement and understanding of their relationships at the core of its approach. Stakeholders are identified by their situational relevance to the context of transition. Recognising the importance of diverse engagement not only in the visioning, but from the outset understanding the shared problem(s) being addressed, transition visioning draws on the extensive basis of participatory approaches to promote collaborative co-design.

### **A process to identify and deliberate on alignments and differences**

In exploring futures and creating shared visions, participants involved in transition-oriented futuring discuss their unique perspectives towards present conditions and the future. As a co-creative process, participants bring with them diverse wants/needs and hopes/fears which inform the deliberation of collaboratively envisioned futures (Irwin, 2018; Hamilton, 2019). Through this, varied perspectives which may align, or conflict emerge, revealing opportunities and barriers to transition. Gaziulusoy and Ryan (2017, p. S1922) highlight that “the most important outputs are not the scenarios themselves, but the conversations they prompt which enable understanding of associated uncertainties, different perspectives, range of options and strategies to move forward”. Creating visions for transition is a key outcome, but the process through which they are created itself is equally, if not more important.

### **Open-ended and iterative**

Rather than acting as static blueprints for design, transition visions are open-ended and reflexive. By constantly reflecting upon and evaluating the changing conditions, visions “continually change and evolve based upon knowledge gained from projects and initiatives in the present” (Irwin, 2015, p. 233). This iterative process also ensures that visions do not remain fixed, but are responsive to change as transition occurs. Through this ongoing process, participants involved in transition are encouraged to adopt long-term thinking and build their futures literacy (Miller, 2018).

### **Primarily normative and long-term**

The approach outlined by Irwin et al. focuses mainly on proposing normative visions of long-term desirable futures to inform transition. But speculative practices exploring possible futures over varying time horizons have also been employed (Angheloiu et al., 2017; Cowart & Maione, 2022; Gaziulusoy & Ryan, 2017). Notably, the ‘double-flow’ scenario process by Gaziulusoy et al. (2013) highlights both ‘forward flowing’, i.e. predictive and exploratory futuring and ‘backward flowing’ normative modes of future [see Amara and Björeson et al. typologies below]. Cowart (in-press), proposes a combination of near-, back-, and middle-casting to navigate the multi-directional momentum and temporal nuances of transition-oriented futuring.

### **Engages past, present and future**

Although vision-led, transition designing does not start with the imagining of future scenarios. Rather it begins with understanding the present day and the historical evolution of the challenges faced. Understanding how the situation has developed over a spatio-temporal context better informs more appropriate and considered transition interventions (Irwin & Kossoff, 2022)

### **3. Towards an expanded understanding of transition-oriented futuring**

The characteristics of transition-oriented futures and futuring outlined above provide the starting point for understanding its practice. There are clear alignments and opportunities for further integration with futures studies to better support more rigorous engagement with how transition design approaches futuring. To reiterate, this paper does not seek to present a conclusive definition or procedure to transition design's engagement with the future. Rather it aims to present new lenses to understanding transition-oriented futuring, and through them, identify opportunities for further developing futuring practices within the paradigm of transition design. Transition design's futuring practices have already drawn from elements of futures studies, particularly adopting methods and tools. Further understanding of how transition design engages with the future, and guidance in how to better approach futuring for transition would benefit the translation of transition design from 'promise to practice' (Van Selm & Mulder, 2019)

A key requirement to advancing transition design is the need to be more critically engaged with the political dimensions of the futures it explores and proposes. Boehnert et al. (2018, p. 2) "stress the need for an increasing focus on power, politics and the political economy of design for transition" and that it must confront the complex and controversial entanglements of unsustainability. Similarly, Mazé (2019) highlights that visions of the future must be explicit and reflexive of its normative politics when proposing futures as desirable. Positioned alongside critical design discourse around the systemic structures of defuturing (Fry, 1999, 2009), decolonisation (Abdulla et al., 2019; Tunstall, 2023), justice (Costanza-Chock, 2020) and pluriversality (Escobar, 2018), there is a rich basis for transition design to draw from in its engaged politics. These critical movements have similarly emerged in futures studies, presenting another space of conceptual and practical insight to draw from further.

Futures studies is a broad and fragmented field with various strands of thought and practice (Fergnani, 2019). In this paper, I draw from key scholars and practitioners who have established frameworks to help understand the diverse range of practices and approaches in the field. This presents a foundational context in which to position and advance transition-oriented futuring. It's clear that transition design is a futures-oriented practice, explicitly engaging in long-term transformations. But despite borrowing elements of practice from futures studies, it has yet to define itself more clearly in relation to the neighbouring field.



## 4. What kind of futures work does transition design involve?

To position transition-oriented futuring amongst the broad range of established futures approaches, Richard Slaughter's 'levels of futures work' (1996b, 2002) offers a useful framework. Slaughter outlines four 'depths' of futures work describing increasing levels of critical engagement. It is argued here that transition-oriented futuring, by necessity of its goals, engages the deepest levels of critical and epistemological futuring. Slaughter's framework is useful here as it distinguishes transition-oriented futuring from less/non-critical modes of futuring which often act in opposition to transition.

At the highest level of futures work, **pop-futurism** entails the shallowest view of the future and is usually the level of futures thinking engaged with by lay-people. Pop-futurism tends to be superficially focused on "technophilic, conservative and diversionary" futures (Slaughter, 1996b, p. 150) and as such, unable (and could be argued unwilling) to support the level of change for transitions towards sustainable futures. Pop-futurism supports a conservative orientation towards the future, often framed around dominant modern notions of 'continuing progress', driven by the techno-optimism of 'futuristic' inventions. Whereas transition design challenges dominant narratives of development and the conventional ways of designing which support it, as well as the powerful forces which perpetuate them. As such, this level of futures work cannot deliver the required changes for transition. As the layman's level of futures thinking, engaging participants in transition-oriented futuring will require supporting the development of futures literacy to advance beyond shallow conceptualisations of the future. Slaughter (1996a) proposed this as a 'social capacity' to uplift the collective ability to envision better futures.

The second level, **problem-focused futures**, delivers more practical work for transition that recognises and engages with problems of the world. However, this approach operates mostly under established assumptions, systems, and structures. As the mainstream of futures work, it supports and replicates "the operation of current success of dominant entities which are driving toward futures that are clearly unsustainable" (Slaughter, 2002, p. 506). Problem-focused futuring is too engaged with the world as it currently is, ultimately inadequate for the task of reconceptualising ways of thinking, living and designing for more radical change. This level of futuring can offer support in staging near future transition interventions but lacks the required deeper questioning of existing socio-cultural paradigms to envision more radical futures.

It is at the deepest levels, **critical and epistemological futuring**, where transition design finds footing in a richer framing of futures work. Futuring at these levels engages in the analysis and reconceptualisation of the ways in which we know and socially construct systems of everyday experience<sup>2</sup>. As established, transition design attempts to shift away from the unsustainable dominant paradigms of thought and seeks to engage new and alternative ways of

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<sup>2</sup> It is worth noting that extending on Critical Futures Studies (CFS), Slaughter conceptualized 'Integral Futures'. This addressed a gap he saw in CFS' focus on external forms of society, balancing it with an exploration of the individual, internal

seeing, thinking and designing. Critical and epistemological futures offer tools and approaches from post-modern analysis to problematise, deconstruct, and re-frame. Methods such as causal layered analysis (Inayatullah, 1998) have already been adopted into the transition designing repertoire (Scupelli, 2019; Irwin & Kossoff, 2020) These levels of futuring embody the goals of transition design which align with what Bell (1997, p. 73) ascribed as the overall purpose and responsibility of futures studies; to “contribute toward making the world a better place to live in, benefitting people and the life-sustaining capacities of the Earth”. Furthermore, critical and epistemological futures, framed approaches for generating dissent (Slaughter, 1999), explicitly question and challenge dominant politics and culture. This attitude towards the future situates transition-oriented futuring amongst related movements of decolonisation, justice and pluriversality in futures (Jae, 2023; Sardar, 1993). Understood as critically and epistemologically engaged futures work places transition-oriented futuring alongside approaches grounded in a shared desire to shift away from reductive visions towards

“visions that are interpretive, emancipatory, epistemologically pluralistic and inclusive...in the context of creating world futures and planetary civilisation beyond the hegemony of an out-of-control economic, military and scientific order that threatens the very existence of human life” (Ramos, 2003, p. 31)

## 5. What types of future scenarios does transition design envision?

Having established the kind of futures work that transition design engages with, the next question seeks to understand what types of future scenarios it explores through problem-oriented, and critical and epistemological orientations. Whilst there are numerous different frameworks proposed to characterise futures studies, this paper turns to the seminal typology established by Amara (1981) and extended by Börjeson et al. (2006). This has been chosen as one of the most commonly employed frameworks in comprehensively describing future scenarios by a range of possibilities and associated methodological approaches<sup>3</sup>. Using this typology helps to further conceptualise and operationalise transition-oriented futuring by supporting a more systematic futuring practice. Three primary scenario types are outlined by Amara; probable, possible, and preferable futures<sup>4</sup>, with Björesen et al. describing corresponding modes of predictive, exploratory and normative futuring, each with a subset of

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agency (Slaughter, 2008). The focus of this discussion was to highlight transition-oriented futuring’s critical orientation. Integral Futures, which incorporates a critical stance, presents a ready opportunity for further research as a relevant approach to inform transition. It aligns well with transition design’s focus on shifting ‘mindset and posture’, transitions at an everyday practice level, as well as related work exploring ‘interior’ and ‘inner’ transformations (Reidy, 2016; Woiwode et al., 2021).

<sup>3</sup> Whilst the outputs of transition-oriented futuring are not limited to scenarios as a format, the typology of scenarios present a helpful heuristic to understand the different types of futures and approaches employed.

<sup>4</sup> This typology is depicted by the frequently used ‘Futures Cone’ model. However, critiques of the linearity and reductive nature of this model, present opportunities for transition design to expand its notions of temporality. See Howell et al. (2021).

two approaches. Transition design's practice of visioning and backcasting lends primacy to the normative proposal of preferable futures. However, this overlooks the importance of incorporating exploratory and predictive approaches which can broaden futures literacy to support better decision making and navigation through transition.

### *5.1 Normative transition-oriented futuring*

As established, transition-oriented futuring is primarily concerned with the creation of desirable visions to motivate and orient transition efforts. Within the Börjeson et al. typology, this falls into the category of preferable futures, adopting a normative approach. Transition visions are driven by normative values informing efforts towards chosen futures. In *preserving* scenarios, where it is "possible to reach the target within a prevailing structure of the system" (Börjeson et al., 2006, p. 728), problem-focused futuring may be a suitable approach. This would be useful in navigating the existing system for implementing transition initiatives towards a desired vision. However, in the creation of visions of more radical futures, *transformative* scenarios are most appropriate. A critical and epistemological approach is needed to question and challenge values, preferences and perspectives, transforming systems of thought to envision alternatives to present-day, problematised situations.

Additionally, normative futuring raises the necessity of critically and epistemologically engaged futuring as the politics of futures in design "remain largely inexplicit and unquestioned" (Mazé, 2019, p. 26). Transition-oriented futuring must be conducted with a critical recognition that design, as a force of 'future-making' (Yelavich & Adams, 2014) must engage with and confront the inherent political dimensions of (re)producing particular forms of living. A key normative question which must be answered when proposing visions for transition is - are the desirable futures proposed, futures which ought to be desired? In exploring alternative futures, scenarios may or may not be considered desirable based on the existing desires and values of actors. Through a practice of critical and epistemological futuring, they should be questioned and potentially shifted, as radically alternative futures may fall beyond existing notions of desirability. Transition design must engage with evaluative questions of which futures should be deemed desirable (or undesirable), what makes them so, and who gets to decide this? Within the plurality (or pluriversality) and complexity of societal transitions, this is a philosophically and practically challenging question.

### *5.2 Exploratory transition-oriented futuring*

Transition design also promotes an exploration of possible futures - the conceiving and describing of a range of scenarios to inform decision making. Exploratory futures encompass futures which could happen. This may, and arguably should, involve normative aspects, inquiring into both possible desirable and undesirable futures. Doing so helps to consider what futures we may want to transition towards, as well as the futures to avoid. Exploring possible futures for transition helps to identify forces that may impact the context and actors in transition, as well as potential pathways and consequences of transition initiatives. *External*

scenarios focus on futures involving factors beyond the control of relevant actors in transition. This helps to form an understanding of the broader context which could shape transition. *Strategic* scenarios on the other hand, focus on futures in which relevant actors have agency to design for/in. In problem-oriented futuring, this helps during transition efforts by describing a range of consequences of interventions taken. Engaging in visioning through a critical and emancipatory mode, transition visions can be proposed through alternative modes of thinking. Developing an exploratory capability expands the scope of what can be conceived of as possible by actors in transition; they can become more imaginative of alternatives and receptive to change. Whilst there have been several examples of exploratory futuring in transition design projects, it has yet to be incorporated into the applied transition design approach. Furthermore, the nature of exploring an endless range of possible futures raises the imperative to recognise the politics behind which futures are explored, and from what modes of thinking they are envisioned.

### 5.3 Predictive transition-oriented futuring

The final type of futuring, predictive futuring, is aimed at anticipating which futures are likely to occur. Predictive scenarios share the limitations of problem-oriented futuring, “usually made within one structure of the predicted system” (Börjeson et al., 2006, p. 726) and as such are not well suited for longer-term transition-oriented futuring in a complex system. However, there is still some value in predicting futures to better navigate change during transition. *Forecasts* attempt to describe the futures of likely developments, similar to exploratory external scenarios, which could assist in decision-making for transition interventions. This may encompass a broad spectrum of futures, which may or may not be of direct relevance or control. *What-if* scenarios are more focused on the anticipation of selected future outcomes. This form of futuring offers transition design a more targeted approach to evaluating relevant conditions important to the transition context. Whilst predictions are generally unfavoured in futures studies, recognising their unreliability within a complex world, there is still value to be found in identifying and evaluating the likelihood of change impacting transition efforts in the near future, where predictions can be more reliable. Using predictive scenarios supports a preparatory stance akin to an exploratory approach, but with an analytical aspect. Both exploratory and predictive futuring supports the prospective ability to ‘feel around corners’ by anticipating and adapting to future situations (Tonkinwise & Bloom, 2014).

Additionally, as transition design recognises that the present state is formed by the past, it should also recognise that many of the deeply embedded and long-standing systems and structures will (most likely) continue to shape the future where transition efforts take place. Börjeson et al. note that predictions may be self-fulfilling. This has the potential in bringing a desirable predicted future into being, but also risks the preservation of undesirable pasts and presents. A key political engagement for transition design is thus to interrogate the power of dominant actors and forces in the world, and their agency to more likely impart change on the system. The pop-futurism of powerful people and organisations engaging in

predictive claims that particular futures are likely or even inevitable must be resisted through critically and epistemologically engaged futuring (Powers, 2019).

Table 1 Overview of transition-oriented futuring activities

	Predictive	Exploratory	Normative
<b>Pop-futurism</b>	Anticipating pop-futurism proposals; understanding pop-futurism discourse and how it impacts the transition context	Exploring possibilities of pop-futurism proposals	Evaluating the (un)desirability of pop-futurism proposals
<b>Problem-oriented</b>	Anticipating expected changes in and around the transition context and how it may impact transition efforts	Exploring possible outcomes in and around the transition context and how it may impact transition efforts; imagining alternative possibilities to the present	Developing and proposing near future transition interventions; identifying pathways towards desirable visions
<b>Critical &amp; epistemological</b>	Analysing underlying epistemologies, politics and power behind the anticipated futures	Analysing underlying epistemologies and exploring possible alternatives based on new ways of thinking and valuing; expanding notions of what is possible for the future	Analysing underlying epistemologies behind presently desired futures; proposing long-term visions informed by alternative ways of thinking and valuing; evaluating desirability of new proposals

## 6. Expanding the applied transition design approach

Having addressed the different depths of futures work transition design conducts and the types of futures imagined, the agenda of transition design’s engagement with the future is expanded. Transition-oriented futuring should not only involve the co-creation of long-term future visions but also explore and anticipate possibilities to form a more holistic futuring practice. An exploratory stage prior to proposing desirable visions aids in broadening the scope of what kinds of futures are considered possible; to direct towards, and away from. Whilst a predictive stance supports greater awareness and reflexivity to emerging and potential futures by better positioning transition initiatives to navigate change. Incorporating these futuring activities yields the following proposal expanding upon Irwin and Kossoff’s foundational approach. In Table 2. Expanded Applied Transition Design Approach, the proposed additions (Steps 4, 5 and 9) have been italicised. There is further work to be done embedding critical questions of power and politics throughout the approach.

Adopting a broader range of futuring activities in the transition design approach aligns with several key frameworks of holistic futuring practices (Dator, 2009; Hines & Bishop, 2013; Inayatullah, 2008; Voros, 2003). Crucially, through the Manoa School’s visioning process, Dator (2009) stresses that no steps should be omitted and highlights the significance of experiencing alternative futures to challenge lay assumptions of the future and broaden the scope for how different futures could be before proposing desirable scenarios. This alignment with es-

established futures studies approaches equips transition design with a more rigorous and comprehensive range of futuring activities. Whilst this begins to validate the proposed expansion, there is further conceptual and empirical work to be done in adopting transition design's orientations at each stage to inform a more tailored approach and identify suitable tools and methods<sup>5</sup>.

A key point to note here are time and/or budgetary constraints in practice. So far transition design, as well as most futuring work, occurs through short-term, workshop-based engagements. The Applied Transition Design Approach was developed from/for this format. Limitations to the time and depth of engagement may present challenges to incorporating additional steps proposed in the expanded approach<sup>6</sup>. Conducting critical work to deconstruct and reframe for transition requires a significant investment. As Tonkinwise (2014) highlights, transition design involves a coordination of design over time; it is not a short engagement. This requires going beyond limited engagements, towards establishing a mindset and culture of transition. As such, it is important that the approach not be considered a finite procedure, but an iterative commitment to ongoing futuring and designing.

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<sup>5</sup> An important point to consider is the level of existing futuring capability and literacy of those involved. Incorporating additional futuring into the applied approach may require more futures expertise to lead the practice, whilst enhancing the futuring capability of participants to do transition design more autonomously.

<sup>6</sup> It should be acknowledged that additional steps have been previously experimented with during various transition design workshop iterations. However the Applied Transition Design Approach (see Figure 1) was developed for the minimum number of steps (T. Irwin, person communication, 31 October, 2023).

Table 2 Expanded Applied Transition Design Approach

	Past	Present		Multi-Decade Transition		Future	
<b>Framing Questions</b>	How did the problem evolve over decades or hundred of years?	How is the problem manifesting in the present and who does it affect?	How can we develop systemic solutions to the wicked 'systems' problem?	How can we/should we plan for the decades long transition to the future?	<i>What are likely developments in the near future and impacts of transition interventions?</i>	<i>What are possible alternative futures?</i>	What is the long-term future we want to transition toward?
<b>Applied Step</b>	3. Mapping the historical evolution of the wicked problem	1. Mapping the wicked problem 2. Mapping stakeholder relations	8. Designing for systems interventions	7. Designing for the transition	4. and 9*. <i>Anticipate emerging futures</i>	5. <i>Explore possible futures</i>	6. Co-creating long-term future visions

*\* The repetition of Step 9 embodies the ongoing mindset of 'seeing around corners'. The anticipation of emerging futures supports navigation through complex change during transition.*

## 7. Conclusion

Transition design has borrowed from futures studies in its formulation, and there is still much to learn from established concepts and practices. By positioning transition-oriented futuring within existing frameworks in futures studies, we can better identify suitable tools and methods which can be adapted. In doing so, this paper contributes to the conceptual development of transition design, as well as towards further practice. By understanding the kinds of futuring work it does through Slaughter's framework, it reveals an alignment with critical futures studies to inform the deconstruction and reframing of alternative futures. Broadening its scope of futuring by engaging the wide range of scenario types outlined by Amara and Börjeson et al. offers a more holistic and systematic engagement with the future to better navigate change. Exploring these typologies presents a start to answer the central questions outlined in the introduction, and this paper invites further research from scholars and practitioners, from both design and futures studies. As a broad and diverse field, there is great opportunity for transition design to further integrate with futures studies. This paper represents just a start for further guidance to better support transition-oriented futuring in practice.

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