"What we were doing was neither a solution to a specific problem, nor a solution looking for a problem, but an approach to collectively reframing the understanding of the whole situation to enable new questions to be asked, new opportunities to be found, and new ways of working to emerge."

Designing Freedom Together

By Roger Duck and Jane Searles

Abstract

This paper tells the story of developing, collaboratively, a visionary whole system transition architecture within a UK regional transport context in 2021. It is written, in the first person, by the two authors whose focus of interest is in complex living systems, characterized by emergence, abundant creativity and surprise. They view design as an inherent aspect of ongoing change, which can be built intrinsically into the living system, not as a stage in a sequential procedure. They view themselves as participants in the system as well as providers of the underpinning methods.

The objective of the work was to enable evolutionary systemic change, which holds the potential for transformation. The overall approach was rooted in collaborative visioning. The authors see vision as an aspirational and yet responsible sense of the future which is shared by multiple people, and acts as a reference point for developing agreement and coordinating action. The architecture was developed iteratively in an outside-in approach starting from the systemic context and aims to enable everyone to be both choreographers and dancers, finding and optimizing their contribution based on their unique capabilities and characteristics.

The approach reframes boundaries as opportunities for mutual learning, in contrast to barriers to be overcome or connections to be engineered, and it raises questions of where boundaries could be designed, including the boundaries around organizations themselves. It enables collaborative activities to be identified which cannot be handled by transactional interaction alone.

The authors welcome dialogue to feed a process of mutual learning with others.

1. Introduction

The purpose of this article is to describe a vision-led, collaborative process that was designed to enable evolutionary change with the potential for transformation. Transport for Greater Manchester (TfGM), which sponsored this activity, is a regional transport authority in the United Kingdom. The work was done as part of a change program during the COVID-19 pandemic. The design focused on the wider purposeful system in which the organization plays roles.

Our title, 'Designing Freedom Together,' reflects our intent. It is inspired by Stafford Beer's concept of designing freedom (Beer, 1993) combined with Matthew Barzun's reminder that true freedom exists only in togetherness (Barzun, 2021, p. 97). Our approach treats boundaries as choices which are interfaces of mutual learning.

We have written a first-person narrative to reflect our own perspectives as practitioners. We consider ourselves to be participants in the system described, and we know that our personal motivations, visions, experience and limitations are at the heart of what we did. Our biases and blind spots may be more evident to the reader than to ourselves and are an important part of the story.

We want, through this article, to explore how our approach relates to other methods for systemic design and transformational change. We welcome dialogue to feed a process of mutual learning with others.

2. Context

Context matters because it enables and constrains what can possibly emerge, and what it is possible to do, notice, think, discuss and intend.

Personal Contexts

Relationships of trust which have developed over time between Roger, senior leaders and others at all levels, and between the authors, supported our ability to convene gatherings and drive the work reported here.

We were guided throughout by the assumption that, in common with many institutional systems, this one is caught in patterns of working and thinking that restrict both the scope of adaptation in changing circumstances and the ability to take action which is fully aligned with vision. We take the view that human beings can change what human beings have designed, and we believe that many of our designed systems do not optimally serve the best interests of all people and life in general. According to research by the International Bateson Institute (Bateson, 2018), complex systems only become unstuck by learning. We were, and remain, confident that the approach demonstrated was, for those who engaged, an effective stimulus for mutual learning. It certainly was for us.

We were motivated to ready the organization for change by gradually drawing more and more people into a process of mutual learning about, *and within*, the complex system that they help to create and maintain together. What we were doing was neither a solution to a specific problem, nor a solution looking for a problem, but an approach to collectively reframing the understanding of the whole situation to enable new questions to be asked, new opportunities to be found, and new ways of working to emerge.

Global, Regional, Public Service and Institutional Context

We recognize both the existential threats and abundant potential of this turbulent moment in human history. We hold on to the possibility of human beings embracing—mentally, emotionally and physically—a sense of shared humanity and, beyond that, of shared vitality and interdependence with life in all its forms.

The regional vision and strategy for transport are well established, in the context of a suite of regional strategies. The work was designed to fully realize this strategy, while also providing new approaches to inform the ongoing development of strategy as an aspect of implementation.

Several organizations are addressing issues and opportunities in UK public services. We are encouraged by the active promotion of citizen-centricity, adaptability and learning, for example by the Public Service Transformation Academy (PSTA, 2020) and the CPI's Human Learning Systems report (Lowe, 2021), in contrast to traditional, more mechanistic practice.

The transport authority is one of many stakeholders, not least citizens, involved in the use and delivery of transport services and infrastructure. At the time of this work, drivers of change included fluctuating patterns of travel due to COVID restrictions, public sector funding challenges, and new responsibilities expected imminently. The organization provides a range of management and operational services across multiple modes of transport through a series of largely discrete functions, while also being home to a strategy function which develops transport strategy and policy for the region.

We recognized a 'formal' culture linked to the defined structures and governance arrangements, characterized by functional separation, and intertwined with a largely friendly and mutually supportive 'informal' culture. We actively worked with the latter to demonstrate latent collaborative capability through people's natural social inclinations.

We take the view that human beings can change what human beings have designed, and we believe that many of our designed systems do not optimally serve the best interests of all people and life in general. According to research by the International Bateson Institute, complex systems only become unstuck by learning. We were, and remain, confident that the approach demonstrated was, for those who engaged, an effective stimulus for mutual learning. It certainly was for us.

We offer this work as a practical contribution to creating, with others, new paths to holistic vitality, as an alternative to fixing problems out of context. We took the opportunity to orient the organization's future activities in a wider systemic context through collaborative modelling. This process enables people to communicate and collaborate with one another for coherent action as agents in ongoing change.

The Organizational Change Program

The organization took a twin-track approach to change, comprising continuous improvement and deeper change for new responsibilities. Consolidated themes included: being open to radical thinking; recognizing no-one has all the answers;

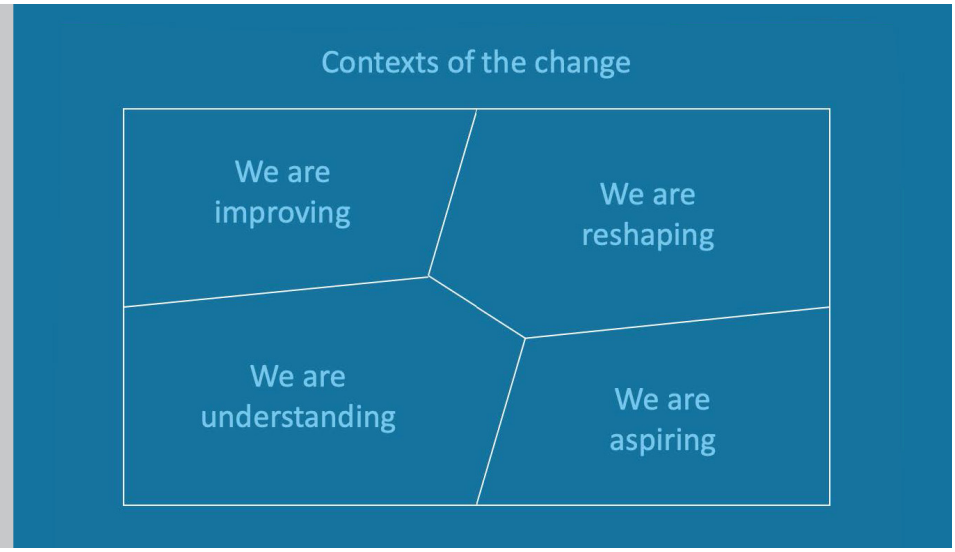

Figure 1. Activity structure of 'changing to become always future ready'

ensuring close collaboration with partners in planning and delivering change; and empowering all to take action. These principles were built into the change program, which included a focus on collaborative working and learning, within quarterly iterative phases.

Our visioning work contributed to the Aspiring workstream, the top-level objective of which was to 'develop, share, and ensure ownership for, the vision and purposes of the future organization, in context' (*Figure 1*). In parallel, this workstream also demonstrated the practicability and value of encouraging a collaborative culture through small group discussions to enable mass participation in growing and owning a shared sense of vision and purposes.

Conceptual Context

System, Design, Process, Roles

We are interested in complex living systems, characterized by emergence, abundant creativity and surprise, which involve human living and sensemaking. Within these systems, which may include technology, people can enact standardized, systematic ways of doing things at the points this is needed, but never in ways that constrain vitality. Nora Bateson has reframed 'system' as 'symmathesy' (a concatenation meaning 'learning together') which accords with our view of system (Bateson, 2016).

We see the design process as an inherent aspect of ongoing change, which can be built intrinsically into the living system, not as a stage in a sequential procedure or something which is applied from outside. We see designing as a continual process of 'distinguishing which is relating' (Bortoft, 2018, p. 172) by which distinctions are proposed and explored. Every distinction creates a dynamic relationship involving what has been distinguished. Furthermore, these relational processes are always opportunities for mutual learning across their boundaries. This design process is, metaphorically, trying to enable everyone to be both choreographers and dancers, enabling every person to find and optimize their contribution based on their unique capabilities and characteristics.

We see 'process' as a coming together of difference, such as through interaction between different people, to create emergent ideas and actions. We recognize that, for most people in most organizations, 'process' carries strong connotations of enforced sequences of predetermined tasks. We therefore often refer to 'activity' instead.

We use 'role' to mean a purposeful activity enacted by an individual or a group (team, organization, collaboration, etc). Each person or group has multiple roles. No role makes sense in isolation. It is critical to distinguish between (and to relate) 'role' and 'soul'. This is Brian Robertson's way of distinguishing the person from what they do (Robertson, 2016, p. 42). He distinguishes 'relationships' between people and 'role-ationships' between roles. Taking on a role means taking responsibility for addressing the intent of that role, based on its connection to its holistic context. We see roles, in dynamic 'role-ationship' with other roles, as the means of aligning activity with shared intent.

Futures Methods

The Three Horizons approach to exploring and realizing new futures is relatively widely used in the public, private, and community sectors. The activity structure of the overall change program was designed to broadly align with the Three Horizons framework as described by Sharpe (2013). The visioning processes at the heart of our method are about developing a shared view of the third horizon.

Tony Hodgson and Bill Sharpe, the main developers of this approach to the Three Horizons, maintain that this futures method embraces conditions of *both* high agency *and* high uncertainty, in contrast to roadmapping, forecasting or scenario planning (Sharpe et. al., 2016).

Approaches to the Design Process

Our strategy was to prototype a new design approach to explore constructive tensions with current practices, and thereby optimize learning. We use, below, a framework from the European Organization Design Forum (EODF) to describe the differences between our preferences and those of the 'formal' culture.

Overall approach: iterative versus linear

The formal culture prefers *linear* procedures in which tasks occur in a clear and pre-defined sequence. In contrast, we see a reality in which many mutually interacting processes of emergence are occurring concurrently. This requires an *iterative* approach to harness emergent possibility, and our work was organized as a process of iterative learning.

Engagement approach: high involvement versus top-down

The organization's formal structures are characterized by tightly scoped roles and top-down decision-making. We are guided by a conviction that *high involvement* from all affected and involved is essential to respect requisite variety, through collaborative interactions between people as peers. We

maintain that this enables organized activity to create and follow through on the changes required to meet radically changing needs in a turbulent world.

Role of the designer: providing process consultation versus expert information
Many people in this organization are engaged as specialists, and are more familiar with an expert-driven approach than process consultation, described by Schein (1999) as 'a philosophy of "helping"' (p. xi). We believe we demonstrated a good balance between process consultation and expert advice by enabling transport specialists to influence the detailed process in a way that felt comfortable to them while applying our systemic design expertise.

Direction: outside-in versus inside-out
Any organization may take an inside-out approach to design, even if deeply connected externally. Our approach was explicitly outside-in, establishing the design context for a future organization which must, by definition, participate in the patterns of activity of the wider connectivity system. This approach enables the boundaries of the existing organization to be reviewed as part of the design process.

3. Motivation, Vision and Objectives

Personal Motivations for Doing this Work

I (Jane) have spent my life collaboratively developing systemic practices and ideas, and am keen to continue using and developing these. I see this as a contribution to addressing the deep problems we face together as human beings.

I (Roger) feel strongly motivated to help people to be as fully themselves in relation to others as possible, which applies both to others and myself. My underlying motivation was a desire to humanize the interactions between people involved in the system of interest, with an immediate focus on my colleagues in the transport authority. I consider systems, cybernetics and complexity thinking as a crucial contribution to increasing awareness of the blindness that arises from seeing the world as divisible into separable parts.

Visions

We see vision as an aspirational and yet responsible sense of the future, which is shared by multiple people, and acts as a reference point for agreeing and coordinating action. We sought to create a grounded vision of a desired future described in terms of ongoing, interdependent activity. Holding a vision of the future does not mean that the steps to bring it about are all currently known.

Regional and Institutional Visions
The overall vision and strategy for the region is focused on the enablers of a good life for all people in the region. The regional transport vision focuses on delivering economic, social and environmental benefits for all. The strategy includes a focus on the integration of different modes of transport to support a seamless travel experience, in addition to other desired qualities including safety, sustainability (in all its meanings) and inclusivity.

The change program addressed a vision for the organization of being 'always future ready'. This implied, to us, an organization that has both the ability to implement change to take on new responsibilities, and the agility to deal with unforeseen circumstances. To achieve this, we believe it is necessary for everyone with a stake in the system to be able to take an ongoing role in change, and we did what we could to embrace this principle in the work.

Emergent Shared Vision
The architectural work led to a reframing and refinement of the vision among those involved. The ethical underpinnings for the vision were: overarching attention to the needs of life in all its forms, with a focus on people as central to the system of connectivity, coupled with valuing interdependence and collaborative working. This ethical position guided the design throughout.

The vision is written in the present tense, from the perspectives of imagined participants standing in the future. Specific details are not prescriptive but indicate the kind of experience those involved wanted to be universally available.

As a Citizen:
I need to connect with many different people and places during my life. I consider, and decide, whether to do this digitally or by travelling, based on local options.

I only need to work out where I want to go and when, to be able to see my travel options as whole journeys including multiple modes of transport. These are based on my own preferences and the current situation. I can also easily access information on the wider impacts of my travel choices. I feel confident when I travel, and I find it easy to navigate.

There are well-established ways for my local community, and the company I work for, to discuss new ideas for future transport arrangements and to have an influence over these. By getting involved in this, I understand more about the implications of different travel choices including how, as citizens, we contribute to a sustainable society.

As a Transport Service Provider:
I contribute to and share ownership for an ethical and responsible vision with other transport service providers, and we each internalize this vision. The vision is richly informed by the travelling public and the wider context, current and future. Across our various organizations we co-create a supportive structure and culture which enables each of us to act responsibly in collaboration with others, while exercising our autonomy.

We are making our shared vision real by developing our own roles and relationships with people throughout the system and its context, harnessing emergent opportunities and dealing with uncertainty. We reflect on and share learning from our actions, and we can steadily realize and further develop our personal potential, supporting others to do the same.

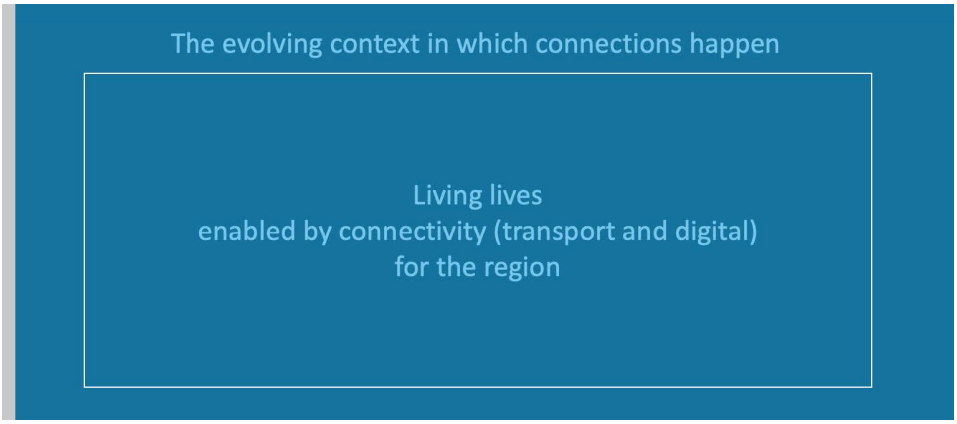

Figure 2. The widely scoped purposeful 'system in focus' of the transition architecture

Objectives

Demonstrating a rapid approach to prototyping a responsible vision, supported by co-designing a whole system architecture

We focused on the visionary purposes of the whole system of connectivity (transport and digital) for the region, and the ways in which this system interacts with its context. The intensive prototyping was achieved in six weeks.

Laying the foundations for a transition strategy to realize the vision-led transport and connectivity strategy in practice within the context of being always future ready

The systemic architecture was designed to guide the transition to the desired future, starting from the current situation. The prototype laid the groundwork to create coherent links from a vision of the whole connectivity system to negotiated organizational roles, responsibilities and structures.

Showing the value of collaboration, and developing collaborative capability among those involved

The methodology is inherently collaborative. All the work was achieved by convening collaborative dialogue. We were seeking to enable everyone involved, including ourselves, to experience different ways of being with one another while exploring the wider context.

Supporting personal development and self-understanding through collaborative relationships

'Underneath' the collaborative engagement, we were also hoping to create the conditions for all of us involved to open ourselves to ourselves, to catch ourselves in the act of making sense of our worlds, to explore what we do not know, and our ways of knowing.

4. Developing a Visionary Whole System Transition Architecture

The design approach encourages exploration of possible and desired futures in terms of interdependent purposeful activity. Only later do those involved explore how such activity might be organized and governed, and who might be best placed to do what.

In this work, we designed a possible architecture to demonstrate the method.

What was Done

We focused initially on the whole system of travel and transport for the region, in line with the scope of the regional transport strategy. The scope of this system includes citizens' activities. Looking from the citizen viewpoint, it was natural to include both transport and digital connectivity in the most widely scoped coherent system relevant to our design challenge. We opened a wider space for transformational possibility by avoiding an early distinction between supply-side and demand-side activity.

As in many organizations, there is a certain pre-occupation with creating joined up working between organizational silos, whose boundaries were all, originally, design decisions. Our approach raises questions of where boundaries could be designed, even the boundary around the organization itself. It reframes boundaries as opportunities for mutual learning, in contrast to barriers to be overcome or connections to be engineered. The modelling process enabled us to identify collaborative activities which cannot be handled by transactional interaction alone.

We see the design process as being led by a sense of possibility and a motivation to create. Potential designs arise as insights, during or following collaborative design conversations. Any design is then analyzed by, for example, applying design rules to test that it works, and refining where necessary.

Wide participation harnesses natural diversity and engages many different perspectives. A range of ideas can be explored through concurrent prototypes to accelerate learning across the multitude of local circumstances. This, in our experience, requires an overall shared sense of agreed direction, with autonomy to explore new solutions in local contexts. Such an approach is essential in increasingly uncertain times.

To maximize diversity in the time available, we engaged with representative views in the organization to demonstrate the end-to-end method in a spirit of learning-by-doing. We reviewed the model with a range of people at different levels of seniority to test its coherence and clarity for those not directly involved. A practical implementation would include citizens and representatives of other organizations in the design process.

The facilitated working sessions brought together people with different perspectives, skills and experience, capturing a common vocabulary for purposeful activities. This resulted in a shared reference model, agreed amongst those involved, of what will need to be happening in future, and where collaboration is essential for the system to work.

The Architecture

The purpose of the system in focus was defined as 'Living lives enabled by connectivity (transport and digital) for the region',

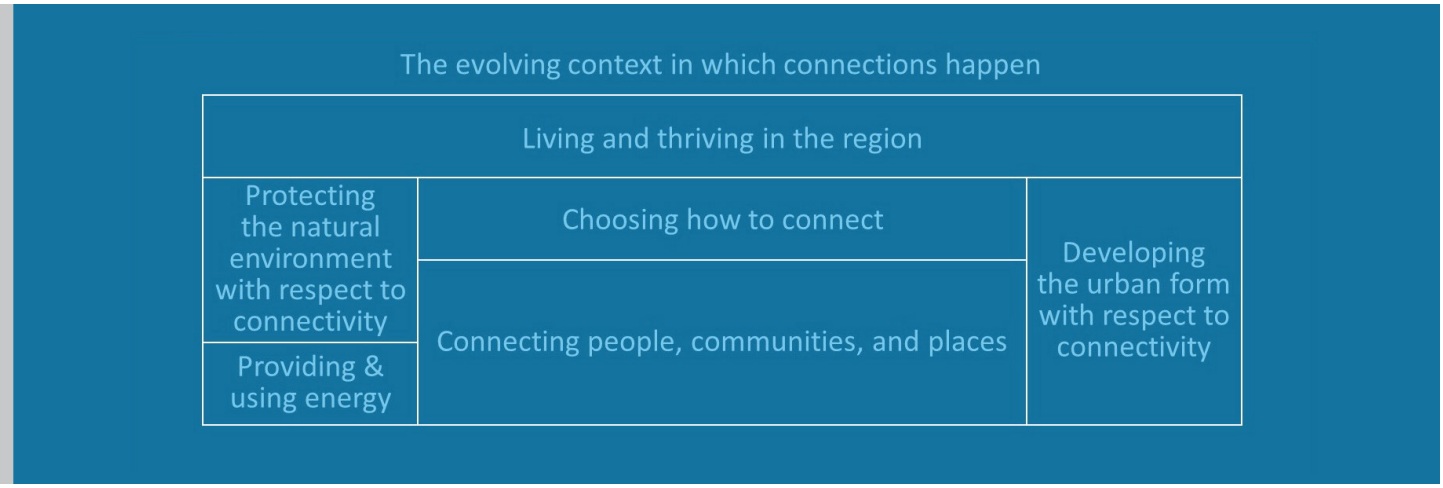

Figure 3. High level systemic transition architecture of living lives enabled by transport and digital connectivity for the region

as shown in *Figure 2*. The rest of the modelling was systematically elaborated from this.

This purpose was developed into a systemic model of operational activity. A simplified version is shown in *Figure 3*. Not every relevant interaction can be shown in this kind of 'marketecture' presentation, but the major interactions are indicated wherever two activities touch.

People generally seemed happy, at this stage:

1. To accept that the activities can involve both *citizens* and *multiple organizations*
2. To suspend judgement on how this whole system might be organized or governed.

This architecture reframed the system from transactional service provision and consumption to co-creative activity for citizens and service providers together. Those involved in the modelling experienced a tangible sense of the transformational possibilities.

We placed the processes of 'choosing how to connect' at the center of the transition architecture. This design choice embedded human living within the widely scoped system of interest. Choosing how to connect contains critical decisions which govern how people become involved, or not, in systems of connectivity.

In the model, as developed to date, we chose to expand three elements of the relational processes between the system and its context: developing the urban form with respect to connectivity; protecting the natural environment with respect to connectivity; and providing and using energy for connectivity. From the perspective of the transport professionals involved, these were the most critical interface activities. Other interaction detail could be expanded for investigation in future, where relevant to those involved.

The objective of this stage of the modelling was to explore the future landscape in sufficient detail to enable design decisions about structure and organization, of selected coherent parts of this system, to be made subsequently. We developed greater detail of specific activities 'closer to the ground' to be able to make those design decisions. Examples of purposeful activities at lower levels of implementation included:

» As an aspect of 'living and thriving in the region': PARTICIPATING IN ACTIVITIES as individual citizens or as groups with common purposes, that require connectivity, including working, buying, socializing, playing, learning, exercising, and healing.
» As an aspect of 'connecting people, communities and places': PROVIDING transport network infrastructure and facilities for INTERCHANGE including stops, stations, car parks, bike parks, taxi ranks, multi-modal interchanges, ports, and airports.

This modelling was supported by Process-Oriented Systems Design (POSD) notation (Pratten, 2000) for holistic systemic architecture and design, and addressed the operational system in focus, excluding management and governance at this stage. The model was recorded in some detail using Archi, a software tool which provides the functionality needed to track the connections between modelled activities, and levels of implementation (Archi, 2021).

What These Diagrams Imply

Each element is a complex purposeful activity, regardless of implementation level. The details of what happens are emergent and full of diverse possibility. The whole system indicated above, and any more grounded (less generic) purposeful activities that we may choose to distinguish, are each to be interpreted holistically as a unity which can manifest as a multiplicity of activities, aligned with this purpose in context. We are not analytically categorizing types of activity here.

A system boundary is simultaneously a process of drawing a distinction and identifying an active relationship of mutual learning. Investigating distinctions within the system involves exploring and choosing those most useful to frame practical coordinated action. Thus, all the interactions are, for us, inherently complex relational processes that involve mutual learning, which is what we call 'collaboration'.

The model is *generative*, in that it can support people to actively develop ways to coordinate their thinking and action. The modelling, and models, are neither *descriptive* of the 'way things are' nor *prescriptive* of the 'way things will be'. Collaborators are drawing useful distinctions to help make sense of, and nurture, a complex living system. The process supports collaborative action and change in line with vision, and it embraces abundant diversity and emergence of newness. People change the models together as their shared understanding

Table 1: *Summary of our reflections and lasting insights*

Topic	Reflections	Lasting insights
Reimagining boundaries, transforming identities	The transition architecture is designed to be enduring, with evolving and emergent detail. Shifts in perspective, associated with re-imagining the identity and nature of boundaries, underpins the potential for transformation. People-in-role differ in their openness to shifts in identity, in their willingness to involve themselves in participative dialogue with others, and the extent to which they are interested in predictability versus possibility.	To cater for the needs of people in different roles, it is important to enable them to 'solidify' the visionary transition architecture into a time-horizon which feels relevant to their role, while keeping the visions at different time-horizons in step with one another. We must also be sensitive to varying levels of collaborative capability when creating the conditions for participative dialogue.
Never confusing the model for reality	Building models together is a useful way of helping people to engage with reality, as long as the modelling is taken seriously but not to the extent of mistaking the models for reality.	Systemic modelling can be misinterpreted as making claims to comprehensiveness. This false assumption can be both a barrier, and a misplaced motivator, to acceptance of the method.
Interdependence of formal organizational structures and informal networks	There is a need to be open to rethinking the premises on which formal organizational structures are based. Drawing a distinction between 'formal' and 'informal' enhances the risk of orienting around, rather than allowing transformation of, the existing formal approach to organization.	Formal organizational structures and informal networks are not independent: they both involve the same people. This makes a difference for organizational design because the design needs to include both informal and formal networks in a unified whole.
Enabling vision-led transport planning	This systemic design approach would powerfully enrich the evolving practice of vision-led adaptive transport planning.	The approach reframes system boundaries, enabling a reappraisal of potential future roles and interactions of citizens and all relevant organizations.
Enabling this work to be done in the context described	The change program legitimized a space for the experimental participative approach we used. Trust built over the years underpinned our freedom to act. Participants described the process as 'natural' and responsive to their contributions, not controlling.	Trust is essential for creating a cultural tone in which people work together as peers, able to develop and enact shared purposes. It takes time to draw a critical mass of people into the iterative way of working required for this design process to succeed.

evolves. This is patterning (designing) what is latent and emerging, with the design process being an integral aspect of that emergence, and of the change.

5. Reflections

We have not attempted to generalize what we think a 'generic reader' might learn. You are uniquely complex, and it is impossible for us to know what difference this account might make for you. We were learning how to deal with a gap between our hopes and intentions for what could be and our perceptions of what is, and about the crucial role of collaboration in processing that tension. We offer our account as a stimulus for your own learning in practice.

The transition architecture has already been used, in further work, to explore a potential structure for a fully integrated regional transport system, implementing the transport vision. We further outlined possible adaptive and distributed governance and organizational arrangements to enable the ongoing viability of this systemic operational structure. This additional work has influenced our reflections.

Summary of Our Reflections

Our reflections, informed by discussions with others, are summarised in *Table 1* and elaborated in the text.

Implications for Transport Planning

In vision-led planning, details of the path are discovered and laid down over time, rather than all being predefined and implemented to a blueprint. This brings learning and responsiveness to changing circumstances into strategic design. Adaptability within a systemic structure is central to our design approach, and supports the ability to collaboratively implement vision-led strategy.

Nicola Kane, Head of Strategic Planning, Insight and Innovation for transport for the region, and lead for the Aspiring workstream, commented: "I gained several critical new insights as we did this work. It was a unique opportunity to explore and embed a shared vision of the future and to

start to clarify the part each of us needs to play in achieving that vision. It helped to build a shared view of the connectivity system which we are operating in (rather than us each holding our own uncoordinated models of that system), creating the potential for deeper collaboration with colleagues and citizens. The shift from a supply-and-demand-side view of the transport system to one which starts from the perspective of the citizen and their connectivity needs, re-emphasized the importance of deep relationships with citizens in everything we do. The architecture also helped to clarify the nature of the challenge of meeting the connectivity needs of citizens today balanced against the needs of future generations and the natural and urban environment."

A Shift in Perspective

In parallel with this work, we ran a series of coaching sessions to enable a diverse group to investigate, through systemic modelling, a situation of importance to them. We learned that people tend to consider boundaries in relation to their current roles, seeing 'us' and 'not us'. Boundaries often embed over time as immutable things, rather than living relational processes of mutual learning.

We found that the people who most appreciated the value of the process were those who participated. Some people experienced a shift in perspective from an initial focus on 'me and my team' to an appreciation of a wider complex system of activity, and the team and individual roles that might be needed to make the future system work. Some found this liberating, and some disconcerting. It is this shift of perspective, associated with re-imagining the identity and nature of boundaries, which underpins the potential for transformation.

Mismatched Assumptions

We see a tension between moving in the direction of a future vision (which may entail transformational change) and the urge to improve existing systems. We believe that working with this tension is critical to avoid it becoming a disconnect.

Some people experienced a shift in perspective from an initial focus on 'me and my team' to an appreciation of a wider complex system of activity, and the team and individual roles that might be needed to make the future system work. Some found this liberating, and some disconcerting. It is this shift of perspective, associated with re-imagining the identity and nature of boundaries, which underpins the potential for transformation.

This work naturally encompassed concern for strategic, structural and cultural issues, related both to the connectivity system and the transport authority. The change program provided us with an umbrella, but the scope remained challenging in an organizational structure which emphasizes a functional separation of duties.

Within the change program, we prototyped distributed decision-making to govern the Aspiring workstream, recognizing that formal governance arrangements, which are designed to support delivery, are not well equipped to support innovation, learning and change (Wenger-Trayner & Wenger-Trayner, 2021, p. 24).

This ambitious endeavor introduced some radical new ideas and opened a space for people to consider the complexity of their situation in new ways. We saw a match between the stated institutional intent for change and our approach to collaboratively re-imagining and realizing the future. We seized the opportunity to act, gaining insights that could not have been predicted, and demonstrating new connections between future vision and practical action on the ground.

Further Work

This prototype provides groundwork for people to collaboratively agree purposeful roles across the system in context, creating coherent alignment with wider purposes.

Growth of informal networks could influence the future (co-creative) design of different formal structural and organizational arrangements which could then reinforce a collaborative culture of increasingly distributed authority, mutual learning and holistic development. We cannot predict the details, and we do not underestimate the challenge to, and from, existing patterns and assumptions, but we remain hopeful.

We are determined to keep focusing on practical transitions to a more equitable and sustainable world, and exploring whether people in other contexts might find this method useful for their own situations.

We know we are not alone, and we sense that this story may resonate in a variety of ways with people in many different contexts. We offer it in that spirit.

6. Acknowledgements

We would like to acknowledge the influence of the many people we have worked with and known over the years, including through Systems and Complexity in Organization (SCiO, 2021) where we met one another, and through Nora Bateson and the global community of warm data hosts.

Particular people stand out for both of us in our journeys into a systemic worldview. Bob Snowdon coached me (Jane) to see a world of activity not things, and Graham Pratten later enabled systemic design to include the creative richness of 'shared behavior' (collaboration). Roger Harnden encouraged me (Roger) to own my ways of making sense of the world, and to develop a deeper appreciation of the nature of modelling.

I (Roger) am very grateful to Eamonn Boylan, the senior leadership team at TfGM, and Peter Boulton for making space

for this work. At its heart, were all the people at TfGM who participated in various ways, especially Nicola Kane and Paul Kevill for robust and insightful contributions.

Argerie Vasilakes offered us heartfelt encouragement in distilling the essence of this story, and we are both grateful for the deepening friendship that has followed a chance encounter at a Riane Eisler event in 2020.

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Roger Duck, PhD, works mostly as a consultant through his own business, Mapsar Limited, drawing on systemic ideas to help people learn together to take effective action. In recent years his work has focused on processes of change and transition in organizations, and the wider systems in which they operate. He is motivated to humanize the way we organize to enable people's inherent potential and motivations to be focused on collective interests. He has consulted to a wide range of public and private sector organizations, especially in relation to transport, energy and telecommunications, working as a facilitator, researcher, innovator, and change maker, building from early experiences in structuring and managing multi-disciplinary consultancy teams, market and technical strategy development, and procurement. He served on the steering group of Great Britain's Future Power System Architecture (FPSA) project (phase 2). He is a member of the European Organisation Design Forum (EODF). He also has experience in local community development through his association with the International Futures Forum (IFF) which led him to co-found an experiment in relationship-building for community wellbeing. He is certified by the International Bateson Institute (IBI) as a warm data host. Clients consistently tell him he brings new perspectives that provide constructive challenge to existing thinking and encourage people to learn. He can be reached at *roger.duck@mapsar.co.uk*.

Jane Searles has been continuously developing the modelling approach used in this case study over the last 30 years in the role of systemic architect. The method was developed originally within International Computers Ltd which was an amalgamation of UK Computer Companies in the 1960s, and later in Fujitsu which took over ICL. The modelling approach was originated by Graham Pratten as a business process-oriented approach to software architecture design. Jane adapted this approach in the early 1990s to address whole systems, which had customers / citizens at their heart and focussed on people and effective teamwork (and enabling technology where useful). The approach was used to create models of coherent systems which spanned organizational boundaries and delivered on customer needs. She used this approach, for example, in modelling the overall Criminal Justice System, and the contribution of Magistrates Courts and of Probation to this system as a coherent whole. Roger and Jane have been collaborating using and developing this approach over the last ten years. They have used it to model an aspirational UK power system which addresses the issues facing communities, industry and commerce and our planet. She can be reached at *jane.searles@btinternet.com*.