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What is a transition? Exploring visual and textual definitions among sustainability transition networks



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ABSTRACT

'What is a transition?' This question is pertinent in understanding the motivation amongst scientists, policy makers, practitioners, business actors and community groups in transitioning society towards sustainability. The Sustainability Transition Research Network and Transition Towns have emerged as two highly visible global networks, shaping and legitimising how transitions are interpreted and implemented. This ability to narrate and frame the 'transition concept' is significant in determining sustainability transitions in future. Yet, previous studies have not comparatively explored how transition knowledge is understood and defined both visually and textually by members belonging to these two global networks. Employing an innovative visual data collection methodology (the draw and write technique), we compare and contrast both the textual and visual representations of a transition across the two networks. The results suggest that there are some differences in worldviews between the two networks; however potential synergies between the two networks could promote a more comprehensive understanding of transitions, which better accounts for all aspects of social and technological change towards sustainability.

1. Introduction

'Transition' is a popular keyword in describing the need to shift from the current state of affairs to a re-imagined, renewed society in harmony with itself and its natural surroundings (Markard et al., 2012): a sustainable society. From 'transition to renewable energy' to 'transition towns', the term transition is employed by diverse actors and organisations working towards a sustainable future and has been used across political, business, scientific and public forums (Audet, 2012). 'What is a transition?' This question is pertinent in understanding the actions of scientists, policy makers, practitioners, business actors and community groups in transitioning society towards sustainability. Exploring how transition is defined in this paper, we turn directly to the actors within two transition networks to gain important insights into the embedded meaning the term transition represents for those who use and apply it. Truffer et al., (2015), refers to socio-spatial embedment of transitions whereby contextual conditions such as institutional make-up and culture, shape how transition initiatives are translated and applied.

Knowledge in many ways has become the new resource driving progress and successful innovative practices (van Oort and Lambooy, 2014). It is crucial to understand the organisation, dissemination and application of knowledge in order to enhance and nurture emerging innovations across social and technical platforms (Bartel and Garud,

2009). When new knowledge emerges, it often goes through a complex process of meaning making, in which agents argue, contest and compete for the dominance of their interpretations (Boschma, 2005). Sustainability transitions, as sites to re-imagine and shape the future represent a form of emerging knowledge that play an important role in activating and promoting frameworks for enhancing our journey towards better practices and outcomes. For these reasons, our understanding and management of knowledge for sustainability transitions must continuously co-evolve alongside increasingly complex global value-chains, transnational networks, and digital communications channels (Silva, 2017).

Sustainability transition networks, as platforms to collaborate, build collective agendas, and share information, inform and shape the wider meaning applied to the transition concept. In this way transition networks can be conceptualised as innovative clusters interacting across translocal or transnational borders (Späth and Rohracher, 2012). Nicolosi and Feola (2016) describe how social movements are often diffused across countries through a transnational network hub, which facilitates connections, shares codified knowledge and provides political support. Geels and Deuten (2006) introduce the importance of intermediaries as mobile agents who are able to aggregate localised lessons and experiences in order to promote more generalised (noncontext specific) frameworks. Developing a global network, transition

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intermediaries can drive the adoption and deployment of specific action frameworks across diverse local contexts. Knowledge shared by transnational networks is often open to interpretive flexibility, whereby many diverse meanings and practices are played out according to local contexts (Feola and Nunes, 2014; Feola, 2015). By establishing a more coherent body of shared codified knowledge, transnational networks create collectively agreed upon meaning, rules and actions (Hargreaves et al., 2013; Silva et al., 2016). The replication of successful frameworks and practices across multiple projects avoids reinventing the wheel and increases the visibility and legitimacy of those projects: they are no longer viewed in isolation but rather as closely aligned to a wider network (Featherstone et al., 2007). This will hold true as long as the projects adhere to a basic set of principles and continue to be successful. In a network of agents, close alignment of common cognitive frameworks is a significant enabler for innovation diffusion (Longhurst, 2015), policy transfer (Dolowitz and Marsh, 2000) and technological evolution (Garud and Rappa, 1994).

Along with many other commentators, Stocker and Burke, (2017) note that the dominant, privileged knowledge system has been linear, reductionist and mechanistic and therefore not suitable for complex systems. They go on to make a case that a broader definition of knowledge in line with modern understandings of complexity, pluralistic value systems and epistemes should incorporate managerial, lay and Indigenous knowledge alongside conventional scientific knowledge. Further they argue that increased deliberative engagement across the boundaries of the currently siloed sectors of governance, knowledge, management and community can result in improved legitimacy for all of these sectors (Stocker and Burke, 2017).

Also important are the means of knowledge exchange, through which diverse actors across multiple countries are exposed to and share particular frameworks and practices. Although face to face interactions are found to be crucial for learning and knowledge exchange, other means such as print media, official websites, online communications and published resources can inform a network's collective values and actions across multiple countries (Silva, 2017). The images and signs used by transition scholars and practitioners are also shaped by the rules and norms of the social context in which they are created. Although textual communication has been the most common way of sharing knowledge in a formal setting and amongst actors involved in science, policy, corporation, and academia: multimodal communication involving images, audio and three dimensional objects has been a rapidly growing area of communication studies for several decades (Halliday and Matthiessen, 2004). Research methodologies should therefore now account for multimodal communication and expand beyond purely written and spoken forms of data collection to provide alternative ways of approaching a research question (Hartel, 2014).

Multimodal communication studies take into account the profound influence online technologies are having on knowledge transfer, increasingly positioning images, videos and audio above purely textual forms of communication (Jewitt, 2009). In particularity visual materials are able to capture the essence of an issue or ideological perspective in graphical form and often can carry excess meaning, taking precedence over textual forms of communication (Gamson and Stuart, 1992; Hertog and McLeod 2001). Representations of transition knowledge draw on multiple modes of communicating meaning; the materials used to discuss sustainability transition have included many visual illustrations to accompany textual information such as photos, models, graphs and charts. Stocker et al. (2016) and Stocker et al. (2012) have explored participatory mapping explicitly as a highly visual alternative to text as a means for co-producing sustainability knowledge.

The Sustainability Transition Research Network (STRN) and the Transition Town (TT) movements emerged from very different origins and for different purposes; however both have witnessed significant growth in membership over the last decade (Markard et al., 2012; Audet, 2014). Both STRN and TT have been vital in propelling sustainability transition knowledge into the limelight, shaping how

transitions are interpreted and implemented. These two networks are an interesting demonstration of how locally launched ideas and actions can reach and engage global audiences, creating a transnational network. Although the works of Seyfang and Smith (2007), Seyfang et al. (2010) and Seyfang and Haxeltine (2012) have addressed the relationship between STRN and TT, limited attention has been given to directly engaging members from both networks to determine the meaning of 'transition' collectively and/or comparatively across multiple countries (Audet, 2014). We propose that there are key differences which may be reflected in meaning-making between the two networks. First, STRN is more academic, scientific and theoretical in its practice while TT is community led, grounded and more activist in its practice. These differences imply that there may be divergent worldviews, reflecting divergent ontologies and epistemologies in play (DeWitt, 2011). Second, there may be different foci of interest for the two networks.

In this paper we investigate and discover how transition is being interpreted and applied by asking 'what is a transition?' directly to the STRN and TT network members themselves. Using an innovative visual data collection methodology (the draw and write technique), we examine and comparatively analyse textual and visual representations of a transition, produced by members of STRN and TT. An understanding of how the transition concept is interpreted and visually represented by STRN and TT further contributes to developing transition knowledge. The paper first outlines STRN and TT, drawing on the popular frameworks and materials published through their transnational information hubs (online sources). The draw and write technique and research design is then described. Finally we present the significant findings, highlighting valuable insights and future recommendations relevant to sustainability transition.

2. Defining transitions

The broad definition of the term transition is 'a change from one form or type to another or the process by which this happens' (Cambridge Dictionary, 2016). This is most often applied within the sciences to describe the 'phase transition' of substances going from solid to liquid gas (Loorbach, 2010). The concept was then developed as a method to analyse biological and ecological systems' evolution, and applied to patterns of interaction and complex adaptive change (Gell-Mann, 1995; Holland 1995). This transition concept has been typically applied to describe non-linear shifts between qualitatively different states also known as punctuated equilibria and has also been applied in psychology, technology studies, economics and sociology (Rotmans et al., 2001; Kemp et al., 2007; Loorbach, 2010).

Environmental and social stressors indicate our societal models must adapt towards more sustainable processes, practices and outcomes, a challenge that is both multifaceted and multi-dimensional (Paredis, 2013). For this reason, transition towards sustainability has been described as a 'radical', 'deep' or 'transformational' change to complex societal systems (Loorbach, 2010). It is this systems perspective that has underpinned much transition discourse, especially in large organisations such as the United Nations Environmental Programme, Organisation for Economic Co-operation and Development, and the International Energy Agency (Audet, 2012). In this discourse, the issues are framed as systemic: they are not just a question of specific products or production processes, but rather require an approach on a systems level, often explicitly embracing complex systems thinking (Audet, 2014).

Although the term transition has been widely used, a collectively accepted meaning has not yet been determined, and indeed may not have to be: the conversation about meaning is most important. Relevant to transition, Feola (2015) investigates the buzzword 'transformation' in global environmental change literature, suggesting concepts of transformation are broadly divided into descriptive or prescriptive interpretations. Descriptive interpretations often leads to reactive

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