



UNIVERSITY OF LEEDS

This is a repository copy of *Commercial orientation in grassroots social innovation: Insights from the sharing economy*.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/92786/>

Version: Accepted Version

Article:

Martin, CJ, Upham, P and Budd, L (2015) Commercial orientation in grassroots social innovation: Insights from the sharing economy. *Ecological Economics*, 118. 240 - 251. ISSN 0921-8009

<https://doi.org/10.1016/j.ecolecon.2015.08.001>

© 2015 Elsevier B.V. All rights reserved. Licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International
<http://creativecommons.org/licenses/by-nc-nd/4.0/>

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

Title: Commercial orientation in grassroots social innovation: insights from the sharing economy

Authors: Chris J. Martin^{1*}, Paul Upham^{2,3}, Leslie Budd¹

Accepted by: Ecological Economics, 4th August 2015

Affiliations

*Corresponding author (chris.martin-3@manchester.ac.uk)

¹ Department of Public Leadership and Social Enterprise, The Open University Business School, Walton Hall, Milton Keynes MK7 6AA

² The Sustainability Research Institute, School of Earth and Environment, University of Leeds, Leeds LS2 9JT

³ The Energy Research Institute, School of Chemical and Process Engineering, University of Leeds, Leeds LS2 9JT

Title: Commercial orientation in grassroots social innovation: insights from the sharing economy

Abstract

There is growing interest in the roles of the sharing economy and grassroots innovation in the transition to sustainable societies. Grassroots innovation research has tended to assume a sharp distinction between grassroots organisations and businesses within niches of socio-technical innovation. However, the non-profit sector literature identifies a tendency for non-profit organisations to actually become more commercially-oriented over time. Seeking to account for this tendency, we develop a conceptual model of the dynamics of grassroots organisations within socio-technical niches. Using a case study of Freegle, a grassroots organisation within the sharing economy niche, we apply the conceptual model to illustrate the causes, processes and outcomes of grassroots niche organisations becoming more commercially-oriented. We show that a grassroots organisation may be subject to coercive and indirect (isomorphic) pressures to become more commercially-oriented and highlight the ambiguities of this dynamic. Furthermore, we highlight that global niche actors may exert coercive pressures that limit the enactment and propagation of the practices and values of grassroots organisations. We conclude by highlighting the need for further research exploring the desirability and feasibility of protecting grassroots organisations from pressures to become more commercially-oriented.

Keywords: sharing economy; grassroots innovation; sustainability transitions; social innovation; collaborative consumption; grassroots organisations.

Highlights:

- We offer a model of the dynamics of organisations engaged in grassroots innovation
- The model integrates niche management theory and grassroots association theory
- We present a case study of the dynamics of Freegle; a sharing economy organisation
- Over time Freegle has become more commercially oriented
- The outcomes of this trend are mixed for Freegle and the sharing economy

Word count: 8738 (excluding front matter and appendices)

1. Introduction

There is growing interest in, and controversy around, the emergence of the so-called sharing economy and collaborative consumption (Botsman and Rogers, 2011). In practice the terms sharing economy and collaborative consumption tend to be used interchangeably to refer to a diverse field of innovation¹, which can be loosely defined as an Internet mediated "economic model based on sharing, swapping, trading, or renting products and services, enabling access over ownership" (Botsman, 2013). In this paper we focus on forms of collaborative consumption, viewed as social innovations with the potential to play a role in the transition to a more sustainable society. In particular, we focus on the case of online free reuse groups (e.g. Freecycle and Freegle groups), as one of the largest and most established innovations in collaborative consumption. These groups have millions of members across the UK (Freecycle, 2015, Freegle, 2015), and are run by grassroots networks of community activists and non-profit organisations. The groups themselves provide an online platform for people to freely and directly give unwanted (i.e. underutilised) items to others in their local area (rather than sending them to their local authority waste system).

When considering the ‘sharing economy’, a crude distinction can be drawn between two narratives employed by policy-makers, commentators, entrepreneurs, critics and activists. First, there is a narrative around the development of a market-based digital innovation with the potential to disrupt established business models, generate economic activity, and potentially lead to incidental social and environmental benefits (e.g. PwC, 2015, Woskow, 2014). This perspective has been strongly critiqued as a form of “neo-liberalism on steroids” (Morozov, 2013) due to the potential of technological innovations within the sharing economy to circumvent environmental and social regulation. For example, sharing economy platforms such as Airbnb and Uber have been critiqued for enabling tax avoidance and eroding labour rights respectively.

¹ This field provides the empirical focus for this paper and hence we also use the terms interchangeably.

Alternative narratives have been constructed around the development of a social innovation, or even a social movement (Schor, 2014), seeking to address the unsustainability, injustices and inequalities of market economies. Advocates of this perspective argue that the sharing economy holds the potential to liberate society from the practices of hyper-consumption (Botsman and Rogers, 2011), and could create “a potential new pathway to sustainability” (Heinrichs, 2013: 228). Advocates justify such expectations arguing that sharing access to goods and services creates the opportunity for vastly more efficient utilisation of resources (from cars to accommodation), which in turn will reduce the scale of economic activity and hence yield environmental benefits. Furthermore, advocates also claim that sharing access to resources builds social capital (as citizens interact in the process of ‘sharing’), and allows for more equitable distribution of goods and services (as access costs are lower than ownership costs).

It is this second narrative to which our case study relates most closely, and in this paper we frame online free reuse groups as a grassroots social innovation (Seyfang and Smith, 2007) emerging from civil society. Seyfang and Smith (2007: 585) “use the term ‘grassroots innovations’ to describe networks of activists and organisations generating novel bottom–up solutions for sustainable development; solutions that respond to the local situation and the interests and values of the communities involved”. Hence, grassroots innovation research can also be viewed as a timely contribution to understanding the role of collective and community action in enacting the principles of ecological economics (Castro e Silva and Teixeira, 2011, Walter, 2002).

Research on grassroots innovations to date has tended to apply the theoretical frameworks of socio-technical transitions (Markard et al., 2012, Smith et al., 2010) to explore the development of social innovations including: community currencies (Seyfang and Longhurst, 2013), community energy projects (Seyfang et al., 2014) , cohousing provision (Boyer, 2014) and community digital fabrication (Smith et al., 2013). A particular focus has been the application of niche development theory (Geels and Raven, 2006, Smith and Raven, 2012) to explain the dynamics of grassroots innovation (Seyfang

et al., 2014, Seyfang and Longhurst, 2013). Such theory, originally developed to explain the dynamics of technological innovations within the market economy, conceptualises niches as protective space within which innovations, and the organisations developing them, are shielded from external pressures, nurtured and empowered (Smith and Raven, 2012). However, Haxeltine et al. (2013) have perhaps extended the socio-technical transitions literature furthest in terms of seeking to account for the dynamics of social innovation, emphasising the role of such innovation in empowering actors to effect change, catalyse transformative discourses and support game-changing developments, in a mutually reinforcing system of influences.

Much of the interest in grassroots innovation arises from the outsider status of the activists and social economy² organisations involved. From their position outside the mainstream and the market economy, grassroots innovations offer visions of radical transition pathways and mobilise marginalised values, organisational forms and institutional logics. In short the world of the grassroots is assumed to be very different from the world of business, as Seyfang and Smith (2007: 584) observe: “Grassroots, niche innovations differ from mainstream, business reforms; they practise quite different kinds of sustainable development”. However, the extensive non-profit sector literature suggests that grassroots organisations (Smith, 2000b), and non-profit organisations more generally (Maier et al., 2014), might not be as different from businesses as scholars of grassroots innovation assume. In particular, as Maier et al. (2014: 1) observe in their recent extensive review of 599 academic publications “the becoming business-like of nonprofit organizations (NPOs) is a well-established global phenomenon that has received ever-growing attention from management and organization studies”.

In light of this contradiction between the assumptions of grassroots niche innovation and the empirics of non-profit organisational dynamics, we pose two research questions: how exactly do organisations engaged in grassroots innovation change over time, to become more commercially-

² The social economy encompasses the activities of non-profit and cooperative organisations and social enterprises, and is often referred to as a ‘third sector’ distinct from the public and private sectors.

oriented? What are the implications of these organisational dynamics for socio-technical niche theory? We address these research questions through a case study of the development of Freegle - a grassroots organisation, within the sharing economy niche, that runs a network of free reuse groups. In this way we aim to add to the theorisation of the niche as a socio-technical space by incorporating the experience of grassroots organisations and hence better explain the dynamics of grassroots innovation development. This in turn may inform the actions of policy-makers and practitioners seeking to promote and foster grassroots innovation.

In the next section we present the theoretical context to the study. This draws primarily on socio-technical transitions theory - specifically the niche theory of Smith and Raven (2012) - and then introduces concepts from non-profit and voluntary sector studies - specifically from the grassroots association lifecycle theory of Smith (2000b) - to provide explanatory accounts of the dynamics of grassroots organisations. Bringing together these two theoretical perspectives, we offer a conceptual model of the dynamics of grassroots organisations within niches of socio-technical innovation. We then describe the case study context, namely the sharing economy and in particular Freegle. This is followed by an outline of the mixed-methods approach used in the study, which includes: semi-structured interviews with free reuse group activists; documentary analysis; and quantitative analysis of online message boards used by activists. Finally, the research results are presented and discussed in the light of the implications for social innovation theory and practice, particularly in relation to socio-technical niche theory.

2. Material and methods

2.1 Theoretical context

2.1.1 Grassroots innovation – a sustainability transitions perspective

Socio-technical and sustainability transitions is an interdisciplinary field of research that seeks to understand how the radical change required to create a sustainable society might take place and how such change might be governed (Markard et al., 2012). The Multi-level Perspective (MLP) (Geels, 2005) is one prominent theoretical model within this field and conceptualises transition dynamics as interactions between posited, multi-level socio-technical structures that constitute society. Three conceptually distinct levels are identified: the *landscape* – the structures deeply embedded within the fabric of society including dominant societal values, economic paradigms and institutional logics; the *regime* – the prevailing socio-technical systems that serve societal needs including the energy, waste, water and transport systems; and the *niche* - the protective space from which innovations emerge with the potential to transform the regime and the landscape (Smith and Raven, 2012). Although the transitions sub-field is fundamentally structural in the processes that it posits, within these structures, and particularly within the niche, actor relationships are important (Smith and Raven, 2012).

In this paper our focus is on the niche level, which is conceptualised as a two level structure (Geels and Raven, 2006) consisting of: the *local (or project) level* - groups of related environmental innovations each grounded in a specific local context; and the *global (or cosmopolitan) level* - intermediaries promoting social networking and social learning within the niche and mobilising resources to support projects. Smith and Raven (2012) identify processes that contribute to the protection of innovations at the local level including: *shielding* – processes that limit the impact of selection pressures exerted by the regime on the projects within the niche; and, *nurturing* – “processes that support the development of the path-breaking innovation” (Smith and Raven, 2012: 1027). Smith and Raven (2012) also offer an extensive list of selection pressures that a niche might offer protection from, including market rules and institutions, administrative regulations and technical standards. The pressures identified are grounded in the logics of the market economy, leaving open the possibility of developing greater understanding of the pressures faced by niche actors within the social economy.

Whilst niche theory, as outlined above, has been usefully applied to explain the dynamics of technological innovations within the market economy (e.g. Ulmanen et al., 2009), grassroots innovation research has highlighted the limitations of applying such theory to explain the dynamics of social innovations within the social economy (e.g. Seyfang et al., 2014). In particular: “The more managerial thinking in the niche analysis literature is found, perhaps unsurprisingly, to be less appropriate amidst the messier pluralities and voluntary associations of grassroots innovation” (Smith and Seyfang, 2013: 829). In this paper we offer a contrasting perspective to the more managerial thinking found in the niche literature, by offering insight into the dynamics of organisations engaged in grassroots innovation, including the pressures such organisations face to become more commercially-oriented.

2.1.2. The tendency of grassroots organisations to become more commercially-oriented

We now turn to the dynamics of grassroots organisations, drawing in particular on the theoretical framework of Smith (2000b) of the lifecycles of grassroots associations. Grassroots and non-profit organisations can take many forms including cooperatives, voluntary associations and professionalised not-for-profits. However, Smith’s framework focusses on one of these organisational forms - the grassroots association, defined as:

“locally based, significantly autonomous, volunteer-run, formal nonprofit (i.e., voluntary) groups that manifest substantial voluntary altruism as groups and use the associational form of organization and, thus, have official memberships of volunteers who perform most, and often all, of the work/activity done in and by these nonprofits” (Smith, 2000a: 7).

We chose this framework as our case study focuses on a grassroots association and such associations are also commonly involved in grassroots innovation (Seyfang and Smith, 2007). The framework itself was developed on the basis of extensive review of more than 2000 publications

relating to grassroots associations. Furthermore, the tendency and pressures to become more commercially-oriented have also been observed across the many other forms of non-profit organisations (Maier et al., 2014). Whilst, Maier et al. (2014) note that when conceptualising the dynamics of non-profit organisations it can be helpful to distinguish between processes, outcomes and causes of becoming more commercially-oriented. We now consider each of these dimensions (as shown in Figure 1) in turn.

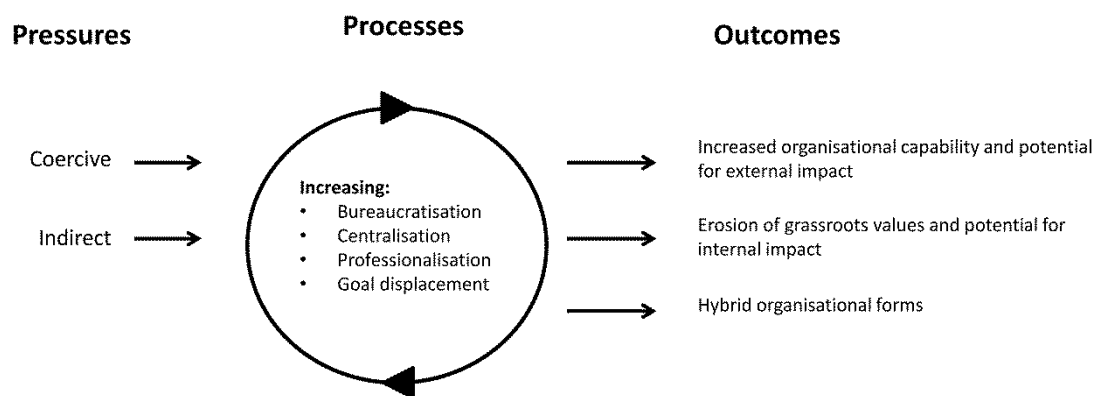


Figure 1: A conceptual model of becoming more commercially-oriented (based on Smith (2000b))

Smith’s (2000b) model, grounded in Weber’s (1947) theory of the rationalisation of organisations, focuses on the processes by which grassroots associations become increasingly complex and commercially-oriented over time. The model delineates between forms of complexity including increasingly: bureaucratic and formalised organisational processes; hierarchical organisational structures; and, centralised decision-making processes. Over time associations can also become professionalised as they start to pay (former) volunteers and require volunteers to hold formal qualifications. Such professionalization is closely linked to an association framing its organisational and social mission in terms of ‘problems’ that can only be solved by expert professionals (Salamon, 1999). At the same time, the goals of associations also tend to change over time, becoming more commercially-oriented as historic goals are displaced or de-radicalised (Smith, 2000b). Common

forms of goals displacement include organisational survival and/or revenue generation becoming central goals of the organisation at the expense of goals relating to external impact and social change.

There is considerable ambivalence amongst non-profit scholars regarding outcomes of becoming more commercially-oriented (Maier et al., 2014), as this dynamic brings increased organisational capability at the cost of the erosion of the distinctive qualities of grassroots associations (Smith, 2000b). Smith (2000b) identifies that becoming more commercially-oriented enables associations to enhance their organisational capability to mobilise resources, sustain external relations, and make an external impact. However, as associations become more complex, the values of efficiency and effectiveness can come to dominate organisational activity, at the expense of other human values including sociability and solidarity (Smith, 2000b). Furthermore, increasing organisational complexity is closely associated with reducing levels of volunteer participation and the erosion of democratic principles and organisational practices (Smith, 2000b). Since the development of Smith's model, the social economy literature has paid considerable attention to the development of hybrid organisations – e.g. social enterprises - which incorporate characteristics of both non-profit and for-profit organisations (e.g. Pache and Santos, 2013, Reay and Hinings, 2009). Applying this concept of organisational hybridity, we suggest that the processes of becoming more commercially-oriented may lead to the emergence of novel grassroots-business hybrid forms of organisations, a theme that we pursue and illustrate below.

Finally, Smith (2000b) identifies two forms of external, '*isomorphic*' pressures that drive the processes of becoming more commercially-oriented (the term *isomorphic* literally means 'same shape' and here refers to non-profits taking forms similar to those of commercial organisations). First, *coercive pressures* take the form of "both formal and informal pressures exerted on ... [grassroots associations] by other organizations upon which they are dependent" (DiMaggio and Powell, 1983: 150). Such pressures include legal requirements, government regulation and the

requirements of potential funders which necessitate the adoption of commercially-oriented practices. Secondly, Smith also identifies *indirect pressures* that create uncertainty and in some cases an associated sense of existential (identity) crisis within grassroots associations. In response to such pressures, grassroots associations are theorised to seek to reduce uncertainty by mimicking the characteristics of more ‘successful’ commercially oriented organisations. Examples of indirect pressures include structural features of the economy and society that limit the resources available to grassroots associations and competition from for-profit actors.

2.1.2. Integrating theories of niches and the dynamics of grassroots organisations

Drawing together the two strands of theory outlined above, we propose a conceptual model of the dynamics of grassroots organisations within niches of socio-technical innovation (shown in Figure 2). In this model we hypothesise that coercive and indirect pressures exerted within the niche and by the regime drive process by which grassroots organisations become more commercially-oriented. Furthermore, we hypothesise that the processes and outcomes of becoming more commercially-oriented shape niche processes (including social networking and social learning) and niche dynamics.

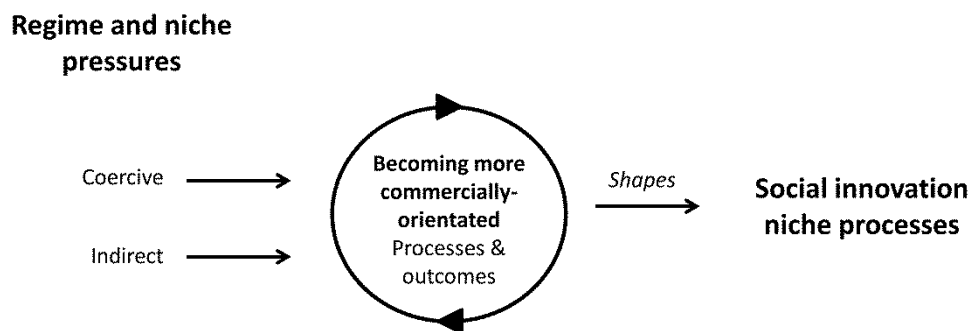


Figure 2: a conceptual model of the dynamics of grassroots organisations within niches of socio-technical innovation

2.2 Case study background

For empirics we draw on a case study of the development of Freegle - an association of free reuse group activists. Online free reuse groups are based on the idea that “there is no such thing as waste, it is just useful stuff in the wrong place” (Botsman and Rogers, 2011: 124). These groups “take the material form of an online message board: members can post OFFER messages offering an item (for free) that they no longer require; and WANTED messages requesting an item that someone else in the group might be willing to give to them. Members contact each other directly in response to a post. The members then arrange a time and location to pass on the item, often the member receiving the item will collect it from the home of the member gifting it” (Martin and Upham, 2015: 3). The items typically gifted included furniture and other domestic goods such as consumer electronics and kitchenware (Groomes and Seyfang, 2012). All items given must be given freely, and hence the groups are underpinned by the logic of generalised reciprocal exchange (Willer et al., 2012). Whereby, group members give items freely on the implicit understanding that they can draw on the generosity of the group in the future. By giving and receiving unwanted items, members of the groups engage in the practice of reuse and hence extend product lifetimes. Botsman and Rogers (2011) describe these groups as a form of redistribution market that can divert items away from the waste stream and offer a glimpse of the potential of collaborative consumption. Free reuse groups within UK have millions of nominal members (Freecycle, 2015, Freegle, 2015), however these figures are potentially misleading as many group members are inactive and people also join multiple groups. Furthermore, most groups are facilitated by a local activist, or a team of local activists, working to promote membership of the group and to support the members using the group.

The majority of UK free reuse groups and activists are affiliated to one of two distinct networks: Freecycle - 582 Groups with 3,740,960 members (Freecycle, 2015); and, Freegle - 403 groups with 1,944,521 (Freegle, 2015). Freegle was formed in 2009 by hundreds of activists who left Freecycle due to concerns over the gradual erosion of Freecycle's grassroots ethos (Freegle, 2014). In this

paper we focus on the Freegle network, in particular the non-profit Freegle umbrella organisation that mobilises resources on behalf of groups, advocates for a sustainable waste system, aggregates best practice and promotes the formation of new groups (Freegle, 2014). Freegle is a grassroots association in the process of changing organisational form to become a cooperative. Perhaps the most notable feature of the organisation is that virtually all interactions between the approximately one thousand activists in Freegle take place online (via message boards and email). The Freegle umbrella organisation governs aspects of activity across the network, in particular maintaining a minimal set of rules which Freegle reuse groups must adhere to (e.g. mandating that all items must be given freely). Furthermore, the umbrella organisation restricts the explicit objective of the network to keeping useable items out of landfill (i.e. out of the waste system) – “an objective with appeal spanning ideological and value-driven perspectives” (Martin and Upham, 2015: 7). However, beyond these rules and objectives activists have considerable autonomy to enact a diverse range of values (Martin and Upham, 2015) by setting local objectives, developing collaborations and engaging in advocacy and local political processes.

We now turn to describe Freegle's place in the sharing economy niche (as shown in Figure 3). The sharing economy is often framed as a socio-digital innovation built upon a general purpose technology; the online platform which enables citizens to engage in peer-to-peer (P2P) forms of economic activity at an unprecedented scale (e.g. Botsman and Rogers, 2011). Such platforms have found applications in multiple sectors of the economy and within civil society, hence the project level of the sharing economy niche encompasses market-based and grassroots innovations which interact with a variety of regimes (see Table 1 for examples). Perhaps the three most prominent groups of innovations within the niche are P2P platforms for: sharing short-term accommodation; car and ride sharing; and resource sharing within local communities. There is also evidence of growing activity at the global level of the niche driven by actors including: sharing economy

advocacy organisations (e.g. Collaborative Consumption and Ouishare); innovation intermediaries and funders promoting the development of the sharing economy (e.g. Nesta and the Nominet Trust); and national associations of sharing economy organisations seeking to develop best-practice (e.g. ShareCo in the UK). Furthermore, the discourse of these actors, reflecting the scope of the local level of the niche, highlights the potential of the sharing economy to disrupt multiple regimes (e.g. Botsman, 2014, Matofska, 2014).

Within the sharing economy niche, Freegle can be conceptualised as a project at the local level. Freegle primarily interacts with the waste and production-consumption regimes, in that it avoids or postpones disposal of items that are no longer required, as well as substituting for consumption of new products. Furthermore, Freegle is to an extent in competition with other projects within the niche, in particular other P2P platforms for sharing resources within local communities (such as Freecycle). In efforts to form relationships with global niche actors, in particular innovation funders, Freegle can be conceptualised as seeking protection within the sharing economy niche. In further work, other conceptualisations of the sharing economy and Freegle's role within it might be developed, given that the characteristics of the sharing economy niche are not fully aligned with the characteristics posited by niche theory. Misalignment is particularly evident in the interactions between the sharing economy niche and multiple regimes, and the diversity of activity at the project level (ranging from grassroots organisations, such as Freegle, to multi-national corporations, such as Airbnb and Uber).

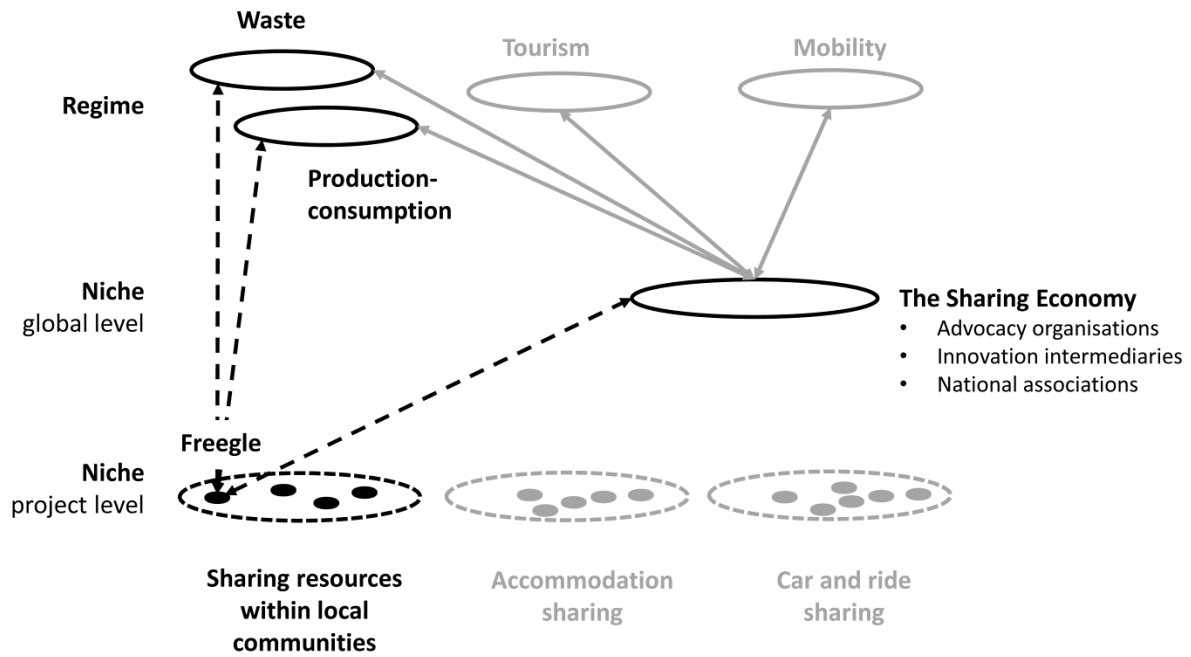


Figure 3: Freegle’s position within the sharing economy niche. Solid arrows indicate relationships between the sharing economy global niche and the regime. Dashed arrows indicate relationships between Freegle and niche and regime structures.

Groups of innovation	Example platforms	Corresponding regimes
P2P platforms for renting or sharing short-term accommodation	Airbnb and Couchsurfing	Tourism
P2P platforms for car sharing and ridesharing	EasyCarClub, Uber and Lyft	Mobility
P2P platforms for sharing resources within local communities	Freegle, Freecycle, Peerby and Streetbank	Waste disposal and production-consumption

Table 1: Examples of groups of innovations within the local level of the sharing economy niche

2.3 Data collection

We employed a case study research design (Yin, 2014) and the research was conducted between April 2014 and February 2015. We followed an online ethnographic approach to data gathering (Boellstorff et al., 2012) as much of Freegle activity consists of online interactions between activists. The research was exploratory in nature, with identification of relevant theory frameworks and data collection and analysis taking place in parallel and progressing through multiple iterations. We suggest that Freegle is an appropriate and interesting focal organisation for a case study for two primary reasons. First, grassroots innovation within the sharing economy has yet to be explored in the literature but may have distinctive characteristics that condition the form of any commercial-orientation, particularly given the central role played by digital technologies. Secondly, extensive online material relating to Freegle's development enabled the retrospective construction of a longitudinal case study.

Data were collected from three sources: (1) publically available online data relating to the development of Freegle; (2) interviews with Freegle activists; (3) and observations of the interactions between Freegle activists. We provide more detail on each dataset in turn. We collected online qualitative data including blogs and newspapers articles commenting on the split of Freegle from Freecycle, and 198 reports produced by Freegle activists. These typically monthly reports summarise the online discussions of the leadership of Freegle and working groups focused on developing Freegle's organisational structure, technological infrastructure and media profile. The reports cover activity from November 2009 (shortly after Freegle's formation) to December 2014. We collected quantitative data recording the level of activity on the online message boards used by activists as their primary communication channel, and the dates on which Freegle established formal policies and processes. We also conducted 13 interviews (see Appendix A) with Freegle activists, subsequently transcribed and thematically coded as described below. Finally, we collected data in

the form of observations of the online interactions between activists made by the first author (who acted as a Freegle volunteer June-December 2014).

The initial phase of data analysis focussed on 198 reports detailing the decisions made, successes achieved, challenges faced and controversies arising over the course of Freegle's history. Based on a review of these data we constructed a month-by-month timeline of Freegle's activity. Where report content directly related to core constructs of Smith's (2000b) model of the lifecycles of grassroots associations – e.g. organisational goals, structures and processes, and coercive and indirect pressures – we summarised report content and added it to the timeline. We thereby developed a chronological description of the case study by identifying key events (e.g. votes on contentious issues), key trends in Freegle's development (e.g. bureaucratisation) and pressures shaping Freegle's development (e.g. external relationships). The description was then enriched with insight from quantitative data on the activity of Freegle activists. The interview transcripts were imported to Nvivo and coded to identify references to the key concepts of Smith's (2000b) model of the lifecycles of grassroots associations. Emergent insights were integrated into the case description, which was then edited and used as the basis of a report on the development of Freegle. The report was shared with the directors of Freegle, feedback and comments from the directors were then analysed and used to further refine the case description. Finally, ethnographic observations provide contextual information that aids interpretation. Hence, through the integration of qualitative and quantitative data from multiple sources we develop an integrated overview of the development of Freegle as presented in the following section.

3. Results and discussion

In this section we address, in turn, the processes, outcomes and causes of Freegle becoming more commercially-oriented. These results relate to the period from September 2009 (Freegle's

formation) to December 2014. Further detail of Freegle's development can be found in Appendix B in the form of the case narrative. We conclude the section by considering the implications of the research results for niche theory.

3.1. The processes of becoming more commercially-oriented

As an organisation, Freegle has become more complex over time and in many respects is now a more commercially-oriented organisation than the loose association of activists who broke away from Freecycle in 2009. In particular the structures and processes of Freegle have grown more bureaucratic and formalised. Figure 4 shows the number of formal policies implemented by Freegle increasing through 2010 to 2013, before plateauing whilst Freegle's organisational structure was under review. Then during late 2014 the number of policies again increased during the preparations for move to a new cooperative organisational structure. Following initial experiments with direct forms of democratic decision-making (i.e. holding activist votes on each issue arising), Freegle's decision-making processes became more centralised. First, Freegle adopted a form of representative democracy with elected representatives (reps) granted autonomy to make decisions on behalf of the members of the organisation. Furthermore, the degree of operational autonomy exercised by the representatives has increased over time. Figure 5 shows that this centralisation has been accompanied by reduced participation in democratic organisational practices, specifically a reduced proportion of eligible activists voting in the polls that play a central role in Freegle's organisational governance. More generally, centralisation has also been accompanied by a steady decline in activist activity, as shown in Figure 6 which takes activity in online activist forums as a proxy measure. A limited degree of professionalisation of roles within Freegle has also become evident over time; in particular representatives have been paid to develop software and run external engagement projects. Professionalisation has been the subject of lengthy and occasionally heated discussion amongst activists, with the payment of 'volunteers' formal approved in May 2013 after

approximately two years of debate. Furthermore, it should also be noted that some roles within Freegle required a *de facto* professional level of skill and commitment, long before it became feasible to pay ‘volunteers’.

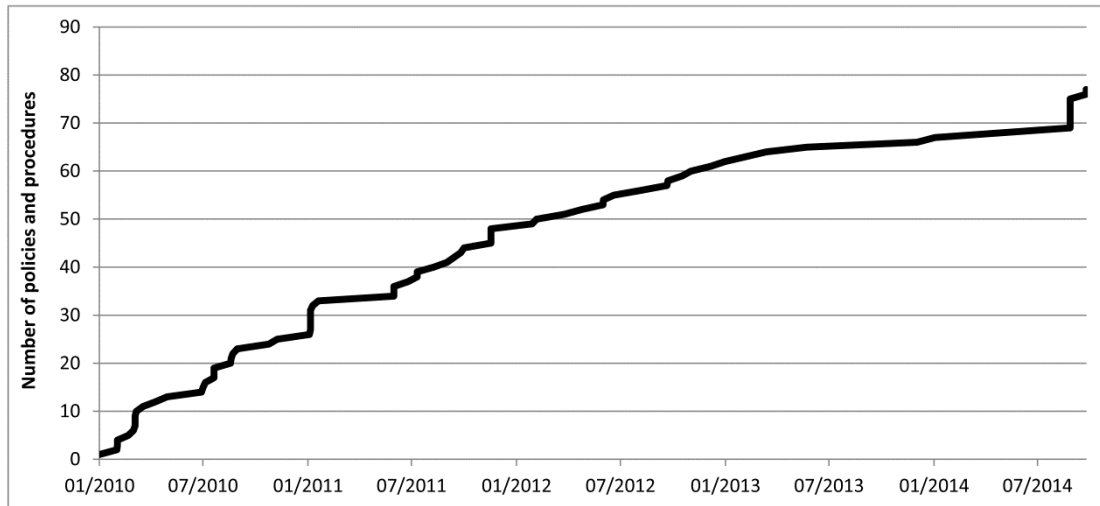


Figure 4: Number of formal policies and procedures implemented by Freegle.

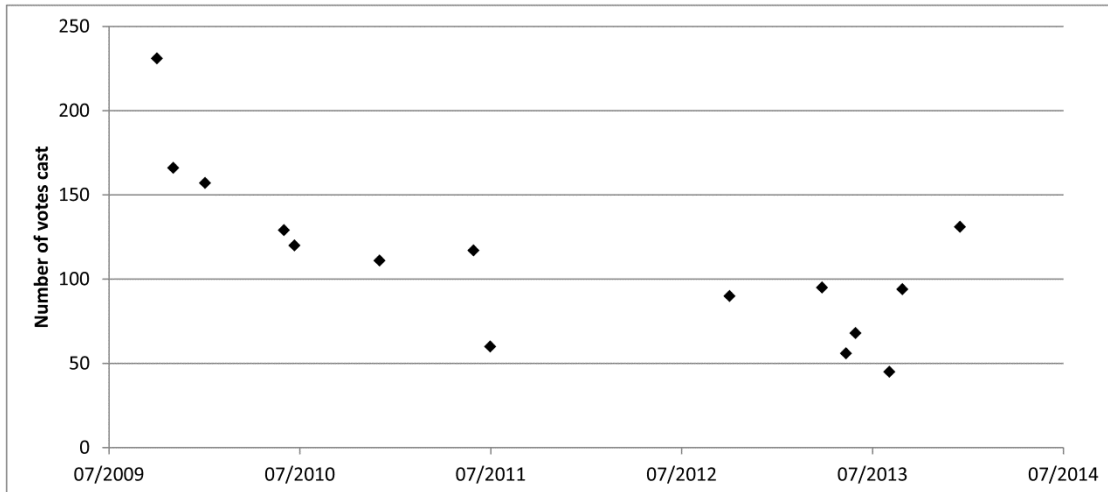


Figure 5: Number of Freegle activists voting in polls. Mean number of votes per poll: 2009 – 199 votes; 2010 – 129 votes; 2011 – 89 votes; 2012 – 90 votes; 2013 – 82 votes. Furthermore, between the 2009 and 2014 the number of activists eligible to vote has grown from fewer than 500 to more than 1000, hence the decline in the proportion of eligible activists voting is greater than the figure suggests.

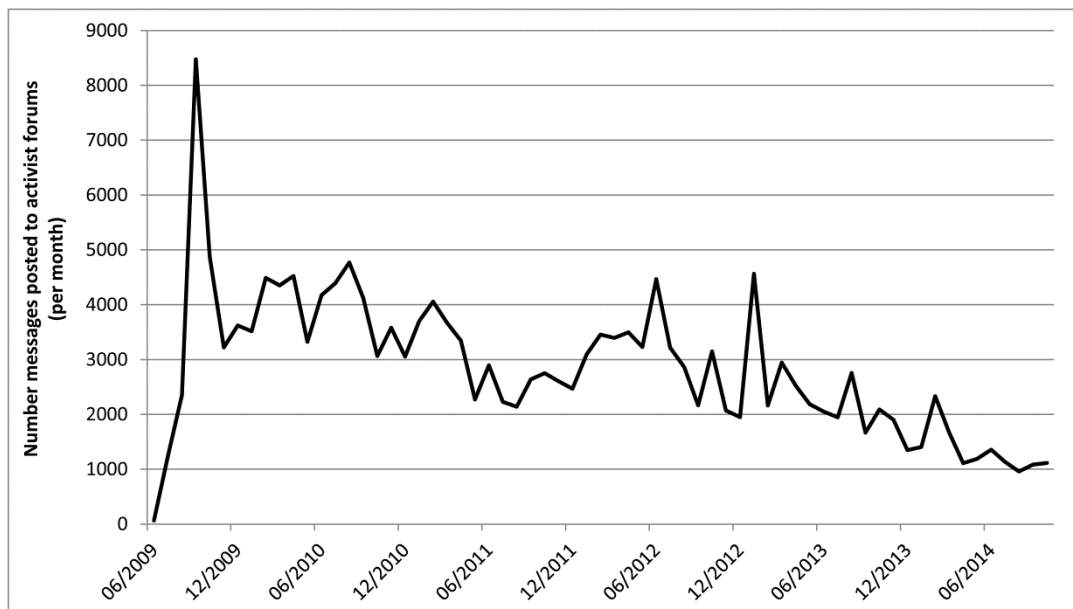


Figure 6: The number of messages posted to Freegle activist forums (per month)

Over time the goals of Freegle have become more restricted in scope and ambition (i.e. de-radicalised). In particular, goals relating to external impact (e.g. increasing participation in the practice of reuse) have given way to goals relating to stabilising and sustaining the organisation. These internally-focused goals have included establishing and subsequently changing Freegle’s organisational structure, establishing income streams and professionalising aspects of Freegle’s operations. This trend towards restricting the scope and ambition of Freegle’s goals can be seen in the reports made by the elected representatives to the 2011, 2012 and 2013 Annual General Meetings.

“There are tens of millions of people in the UK who have never freegled. Let’s change that.”

[AGM 2011]

“Our first 3 years have provided us with a firm foundation for Freegle. We have a successful organisation which we now need to sustain and encourage to flourish” ... however ... “the Reps’ view [is] that if Freegle do not pursue earning income, then it does not have a sustainable future and would probably suffer significant or terminal decline within the next 18 months to 2 years.”

[AGM 2012]

“The main issue we have addressed internally in this fourth year of Freegle is the need to maintain and secure our success to date.” *[AGM 2013]*

Furthermore, as the goals of Freegle have become more internally focussed, external impact (i.e. activity within the Freegle reuse groups) has also reduced as shown in Figure 7. However, it is unclear if there is a causal relationship between the orientation of Freegle’s goals and its external impact, as many factors – in particular competition from Freecycle groups - are likely to have contributed to the trend of falling external impact.



Figure 7: The number of OFFER and WANTED messages posted (per month) in 11 Freegle reuse groups

3.2. The outcomes of becoming more commercially-oriented

We now consider the outcomes of Freegle becoming more commercially-oriented. Perhaps the most salient point in the context of grassroots innovation is that through professionalization and gaining greater access to resources, Freegle may have increased its likelihood of organisational survival (Bevan, 2013) and hence its likelihood of playing a continuing role within the sharing economy niche. Furthermore, developing external engagement capability has enabled Freegle to engage with national government and to garner national television coverage³; providing the network of activists with the opportunity to contribute to the policy and public debates around reuse and consumption. Freegle’s technological capabilities have also expanded and activists have developed a digital infrastructure including: tools for publishing the posts within free reuse groups on social media platforms (including Facebook and Twitter); much improved user interfaces for the groups; and, tools to support activists to better facilitate the groups. Freegle’s strategy and tactics for generating

³ Including ‘Kirstie’s Fill Your House For Free’ a Channel 4 (2014) programme which “helps people transform their homes with furniture that’s been sourced for free”.

income have also become increasingly sophisticated and successful, including participation in funded consortia projects with other community sustainability groups and the formation of partnerships with charity funding developers and for-profit organisations.

However, becoming more commercially-oriented has to an extent eroded some of Freegle's more distinctive grassroots qualities. Centralising decision-making has arguably reduced Freegle's internal legitimacy and sociability amongst its members, as democratic and discursive processes now play a more limited role in the organisation. Perhaps, this internal legitimacy has been traded for increased external legitimacy achieved through external engagement activities and increased organisational efficiency. Furthermore, becoming more commercially-oriented is a resource-intensive process that has placed great strain on Freegle's limited resources. In the case of Freegle we observe the process of becoming more commercially-oriented taking centre stage, requiring considerable effort on the part of the organisation's leaders to manage and accommodate competing grassroots and business logics. This has left very limited resources for other organisational activities, which in turn has contributed to Freegle's increasingly internal focus and associated goal de-radicalisation.

Although Freegle has adopted some commercially-oriented practices and characteristics, it remains distinctly a social economy organisation connected to, and reliant, upon to its grassroots members and operating with minimal financial resources (approx. £10,000 pa). We suggest that Freegle has been able to do so by selectively enacting the logics of the business, the social movement organisation and the voluntary association (Pache and Santos, 2013, Reay and Hinings, 2009). As an illustrative example - although Freegle has allowed a for-profit organisation to access data from its free reuse groups to build a commercial service (in return for technological resources and expertise), Freegle retains a strong anti-commercial stance on the issues such as generating income through advertising to free reuse group members. Furthermore, throughout its history Freegle's hybridisation of organisational logics has enabled diverse modes of participation within the organisation. This participation ranges from active citizens engaging volunteering to support their

local community, to activist and (social) entrepreneurial modes of participation that seek to change consumption and waste disposal practices across society.

3.3. Pressures to become more commercially-oriented

Freegle’s development has been shaped by coercive and indirect pressures, each of which we address in turn below. Perhaps the most notably coercive pressures acting upon Freegle are the practices, expectations and agendas of the innovation funders within the sharing economy global niche. Freegle was unsuccessful in a number of applications for funding from innovation funders; with Freegle’s associational structure and lack of interest in generating revenue presenting considerable barriers. Furthermore, these pressures from innovation funders were central to Freegle’s decision to move to a more commercially-oriented organisational structure and seek to generate revenue. Here, the expectations and agendas of innovation funders were based on the assumption that all innovators within the sharing economy would be for-profit organisations seeking to establish a financially sustainable business model. This assumption acted to exclude Freegle as a grassroots organisation from the possibility of securing funding, as described by a Freegle Director below.

“So your grant application is, well, how are you going to become self-sustaining; what’s your revenue stream;” ... “The thing about Freegle is ... If we started to get members to pay for it, that’s exactly what we’re not trying to offer. If we charge people to use our service, then only people who can afford to pay and are willing to pay will use our service. And that would be far fewer people.” [Freegle Director 2]

A second form of coercive pressure has been exerted on Freegle by the UK Government (*a policy actor in the waste regime*) in the form of expectations and requirements for actors participating in

policy development activities. Here the bureaucracy of policy development processes required an unsustainable level of activity for the voluntary Freegle Director involved:

“The UK government did publish a brand new directive on waste prevention at the beginning of December last year” ... when ... “that was done, I was kind of like phew that is brilliant, because I am actually just not going to engage too much with them for a while, because they completely exhausted me, completely drained me.” [*Freegle Director 3*]

Such experiences of activists working with national government were central to decisions made to professionalise aspects of Freegle’s external engagement activities, as Freegle sought to ensure it had sufficient capacity to engage in advocacy work and to contribute to the development of reuse related policy.

Turning now to uncertainties and associated indirect pressures that have shaped Freegle’s development. Concerns around competition from better resourced and more commercial organisations including Freecycle and for-profit actors (*competitors within the sharing economy niche*) have contributed to an ongoing sense of uncertainty within Freegle. Furthermore, the technological environment more broadly (*the ICT regime*) has also acted to create pressures. The leaders of Freegle are concerned that the rapid pace of Internet innovation, and the associated increasing expectations of Internet users, will leave Freegle’s online presence looking dated and unappealing to potential users. These indirect pressures have been a key factor in Freegle seeking to establish an online presence and offer levels of usability comparable to those of professionally developed websites. In turn this has created a requirement for professional software development skills, albeit these skills have most often been employed on a voluntary basis.

We want to “be one of those websites that people use, and that means that the standard for” ... the Freegle website ... “in terms of usability has to be really quite high. But we’re a volunteer-based organisation, and we don’t have very many people at all with IT skills, so trying to write... to have a website or a service that is easy enough to use and competes effectively with the other calls that people have for their time... that’s quite a difficult challenge for us.” [Freegle Director 2]

3.4. Implications for niche theory

Using the case of Freegle we have illustrated our model of the dynamics of grassroots organisations within social innovation niches, highlighting that grassroots organisations involved in social innovation have a tendency to become more commercially-oriented over time (Maier et al., 2014, Smith, 2000b). In this respect we find that Freegle, whose modus operandi is significantly conducted online, nonetheless follows the pattern observed of non-profits generally. In the case of Freegle we are ambivalent about the outcomes of becoming more commercially-oriented, as whilst benefits have been realised (not least increased likelihood of organisational survival), some of Freegle’s distinctive grassroots characteristics (notably extensive democratic participation in decision-making) and hence internal legitimacy have been eroded at least in terms of the numbers of activists participating. This too echoes previous observations (Smith, 2000b) of a tension between the objectives of diffusing a social innovation and hence furthering societal transformation through increased numerical recruitment of participants; and what might be termed the insider perspective of locality, sociability and community that is associated with *depth* of involvement.

Our model highlights the role of coercive and indirect (isomorphic) pressures (DiMaggio and Powell, 1983) in the development of grassroots organisations within niches of social innovation. The

pressures evident in the case of Freegle are shown in Figure 8: by explicitly including these, we offer a variation on Smith and Raven’s (2012) model of the selection pressures exerted by the regime on niches. Our version has not only been helpful in understanding the development of our particular case study grassroots organisation within a social innovation niche, but by virtue of the common experience of many such organisations being subject to coercive and indirect pressures, also has broader implications for niche theory.

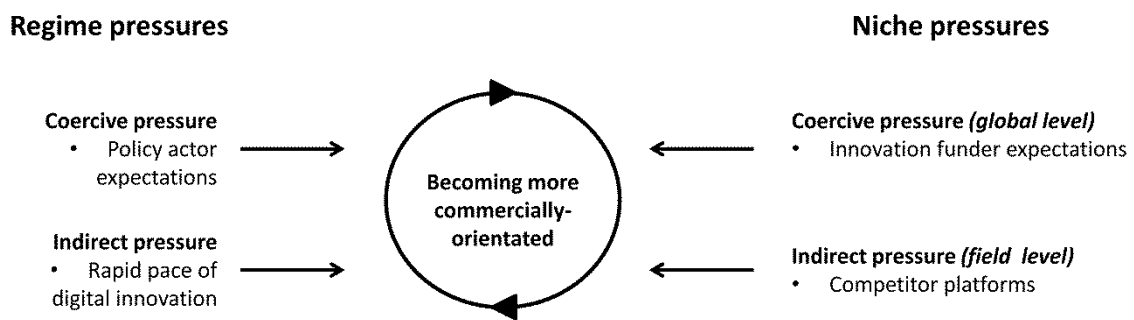


Figure 8: Niche and regime pressures to become more commercially oriented exerted upon Freegle

In terms of the social innovation itself, a first implication is based on the observation that Freegle has received only limited protection within the sharing economy niche from pressures to become more commercially-oriented. Rather, niche actors, in particular innovation intermediaries and competitors, have exerted coercive pressures and have contributed to indirect pressures respectively. Hence in the context of social innovation, niche theory that focuses on pressures exerted by the regime (e.g. Smith and Raven, 2012) may also need to also take account of intra-niche pressures. In particular indirect pressures within the niche may play a significant role in the processes leading to the coalescence and standardisation of innovations (Geels and Deuten, 2006).

Secondly, the research highlights the potential for misalignment between the norms and values of global niche actors and those of grassroots actors (at the project level). Such misalignment may in

effect create a form of passive niche resistance. While this is not a direct parallel of regime resistance (Geels, 2014) in the sense of deliberate opposition, the practices and expectations of global niche actors can nonetheless create barriers to entry for grassroots organisations seeking the protective space of the niche. In the case of Freegle the qualification criteria were the development of sustainable financial revenue streams and adopting a legally recognised organisational form. Through such criteria the global niche in effect resists the enactment and propagation of the practices and values of grassroots actors and so potentially reproduces elements of the prevailing regimes.

Thirdly, given the mixed impacts of becoming more commercially-oriented, one can see the limitations of socio-technical transitions theories as currently configured for representing situations where the norms or values of the niche activity differ from those of the regime. For example, Strategic Niche Management theory (SNM) (Kemp et al., 1998, Schot and Geels, 2008) posits that as niches are supported in their development, they will influence the regime as local projects become increasingly standardised and commercially oriented, and hence experience increasing success in the market. Furthermore, global niche actors are theorised to play an important role in shaping activity at the local project level, promoting increased standardisation and commercial orientation. However, while SNM theory was developed to explain the dynamics of market-based, socio-technical innovation, grassroots innovations are typically qualitatively different in nature and purpose. They generally aim to expand their influence and activity - and as we have shown they do have a tendency to adopt aspects of commercial organisation - but their values and ambitions nonetheless differ from those of commercial firms.

Here we offer a model that acknowledges the value of the simple structuration posited in socio-technical transitions models and the importance of alignment in norms or values. This perspective is intended to be more sensitive to the characteristics, institutional logics and values of grassroots

innovations, in so far as these differ from technological innovations. More specifically, the model brings into focus some of the ambiguities of becoming more commercially oriented and the considerable resources required and challenges faced in doing so. Furthermore, we tend to agree with Seyfang et al. (2014: 22) that grassroots innovations require “imaginative policy support, recognition of [their] distinctiveness as an innovative sector (rather than attempts to make it fit the commercial ‘innovation’ mould), and appropriate support and resources”. In particular, nurturing processes to support grassroots organisations through the resource-intensive process of becoming more commercially-oriented, whilst maintaining an external orientation to their activities, would be beneficial.

Turning to implications for niche processes and dynamics (Figure 9), first, drawing on research focussed on community energy projects in the UK, Seyfang et al. (2014) suggest that social networking between actors in grassroots niches is likely to be limited, compared to networking in successful market niches. A partial explanation for this phenomenon, based on the Freegle case, is that engaging in extensive social networking and advocacy activity requires *de facto* or formal professionalisation of roles within grassroots organisations. In this respect, purely voluntary organisations may struggle to engage in social networking within a niche, as active niche participation is likely to require organisational capabilities and capacities that cannot be mobilised on a solely voluntary basis. Secondly, assumptions that the actors within grassroots niches tend to be inward looking and do not wish to play a role in transforming socio-technical regimes (Dóci et al., 2015) need to be revisited, being more relevant to groups without transformative ambitions. Nonetheless, organisations engaged in grassroots innovation may initially have ambitions to play a role in system change that come to be displaced by more immediate concerns (such as the need to generate revenue and survive). Thirdly, we have highlighted that the tendency to become more commercially-oriented has the potential to have a mixed impact on the diversity of organisational forms within a niche. The erosion of distinctive grassroots characteristics has the potential to lead to

increasingly homogeneous organisational forms, whilst the emergence of hybrid organisational forms may lead to increasingly diverse organisational forms.

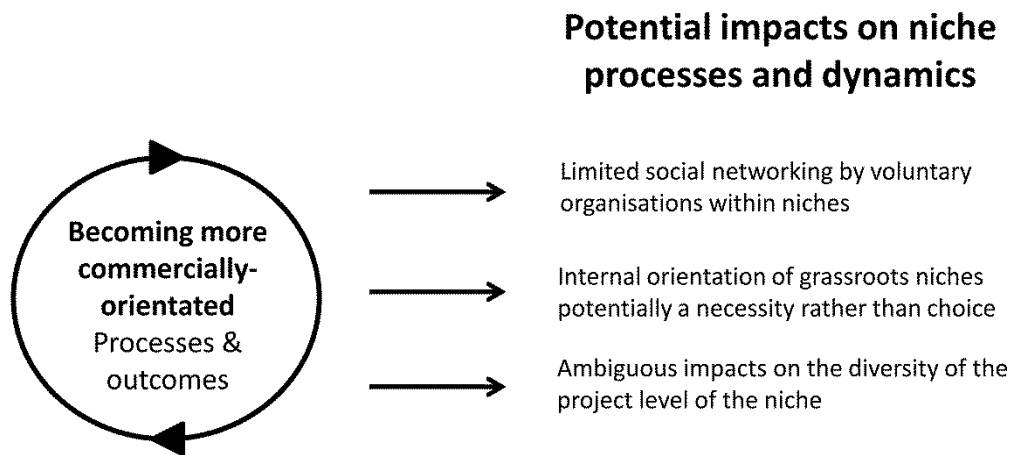


Figure 9: Potential impacts of the processes and outcomes of becoming more commercially-oriented on niche processes and dynamics

4. Conclusion

Socio-technical transitions research has tended to assume a sharp distinction between grassroots organisations and for-profit organisations within niches of socio-technical innovation. However, the extensive non-profit and voluntary sector literature identifies the tendency of non-profit organisations to become more commercially-oriented over time. Seeking to accommodate this contradiction, we offer a model of the dynamics of grassroots organisations within niches of socio-technical innovation, focusing on the tendency of such organisations to become more commercially-oriented. We have illustrated this model through a case study of Freegle, a grassroots organisation within the sharing economy niche, making three main contributions: (1) highlighting the coercive

and indirect pressures for grassroots organisations to become more commercially-oriented, as well as highlighting the ambiguities - from a grassroots innovation perspective - of this dynamic; (2) elaborating how global niche actors may wittingly or unwittingly constrain niche activity by exerting coercive pressures that limit the enactment and propagation of the practices and values of grassroots actors; and (3) highlighting the interplay between the dynamics of grassroots organisations and the niches that they reside within.

Many opportunities remain to further develop and apply the model in studies of other forms of grassroots innovations beyond the sharing economy. In particular, it remains unclear how trade-offs made by organisations in the process of becoming more commercially-oriented might be best evaluated in the context of a theory of grassroots innovation concerned with realising both intrinsic and diffusion benefits (Seyfang and Smith, 2007). It would also be beneficial to explore further the extent to which it is desirable or feasible to protect grassroots organisations from the pressures to become more commercially-oriented. Furthermore, as transitions research has focussed on market niches and more recently grassroots niches, we suggest that the sharing economy niche merits further research, given the mix of for profit and grassroots actors involved. However, as the sharing economy niche is currently dominated by interests of for-profit actors we suggest the niche would benefit from fostering greater involvement of grassroots and hybrid organisations; which, in turn would increase the diversity of values and institutional logics enacted. Furthermore, we emphasise the need for actors at the global level of the sharing economy niche to develop appropriate mechanisms for nurturing grassroots activity, rather than falling into the trap of excluding grassroots organisations (as in the case of Freegle) by assuming they can and should act like commercial start-up companies.

References

- Bevan, S. 2013. Continuing the Collective Action Dilemma: The Survival of Voluntary Associations in the United States. *Political Research Quarterly*, 66, 545-558.
- Boellstorff, T., Nardi, B., Pearce, C. & Taylor, T. 2012. *Ethnography and virtual worlds: A handbook of method*, Princeton, New Jersey, USA, Princeton University Press.
- Botsman, R. 2013. *The Sharing Economy Lacks a Shared Definition* [Online]. Available: <http://www.collaborativeconsumption.com/2013/11/22/the-sharing-economy-lacks-a-shared-definition/> [Accessed 8th January 2015].
- Botsman, R. 2014. *Collaborative Economy: A Transformative Lens, Not a Start-up Trend* [Online]. Available: <http://www.collaborativeconsumption.com/2014/11/27/collaborative-economy-a-transformative-lens-not-a-start-up-trend/> [Accessed 22nd April 2015].
- Botsman, R. & Rogers, R. 2011. *What's mine is yours: how collaborative consumption is changing the way we live*, London, UK, Collins.
- Boyer, R. 2014. Sociotechnical Transitions and Urban Planning: A Case Study of Eco-Cohousing in Tompkins County, New York. *Journal of Planning Education and Research*, 34, 451-464.
- Castro E Silva, M. & Teixeira, A. a. C. 2011. A bibliometric account of the evolution of EE in the last two decades: Is ecological economics (becoming) a post-normal science? *Ecological Economics*, 70, 849-862.
- Channel 4. 2014. *Kirstie's Fill Your House For Free* [Online]. Available: <http://www.channel4.com/programmes/kirsties-fill-your-house-for-free> [Accessed 24th February 2015].
- Dimaggio, P. J. & Powell, W. W. 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American sociological review*, 147-160.
- Dóci, G., Vasileiadou, E. & Petersen, A. C. 2015. Exploring the transition potential of renewable energy communities. *Futures*, 66, 85-95.

- Freecycle. 2015. *Welcome to the UK Freecycle.org® Groups' Homepage* [Online]. Available: <http://uk.freecycle.org/> [Accessed 14th January 2015].
- Freegle. 2014. *About Freegle* [Online]. Available: <http://www.ilovefreegle.org/about/> [Accessed 19th November 2014].
- Freegle. 2015. *Stuff you don't need? Freegle it!* [Online]. Available: <http://ilovefreegle.org/> [Accessed 14th January 2015].
- Geels, F. & Deuten, J. J. 2006. Local and global dynamics in technological development: a socio-cognitive perspective on knowledge flows and lessons from reinforced concrete. *Science and Public Policy*, 33, 265-275.
- Geels, F. & Raven, R. 2006. Non-linearity and Expectations in Niche-Development Trajectories: Ups and Downs in Dutch Biogas Development (1973–2003). *Technology Analysis & Strategic Management*, 18, 375-392.
- Geels, F. W. 2005. The dynamics of transitions in socio-technical systems: a multi-level analysis of the transition pathway from horse-drawn carriages to automobiles (1860–1930). *Technology Analysis & Strategic Management*, 17, 445-476.
- Geels, F. W. 2014. Regime Resistance against Low-Carbon Transitions: Introducing Politics and Power into the Multi-Level Perspective. *Theory, Culture & Society*, 31, 21-40.
- Groomes, L. & Seyfang, G. 2012. Secondhand Spaces and Sustainable Consumption: Examining Freecycle's Environmental Impacts and User Motivations. Available: <http://www.3s.uea.ac.uk/publications/secondhand-spaces-and-sustainable-consumption-examining-freecycle%E2%80%99s-environmental-impac> [Accessed 19th November 2014].
- Haxeltine, A., Wittmayer, J. & Avelino, F. 2013. Transformative social innovations: A sustainability transition perspective on social innovation. *Social Frontiers: The next edge of social innovation research*. London.
- Heinrichs, H. 2013. Sharing Economy: A Potential New Pathway to Sustainability. *Gaia*, 22, 228-231.

- Kemp, R., Schot, J. & Hoogma, R. 1998. Regime shifts to sustainability through processes of niche formation: The approach of strategic niche management. *Technology Analysis & Strategic Management*, 10, 175-198.
- Maier, F., Meyer, M. & Steinbereithner, M. 2014. Nonprofit Organizations Becoming Business-Like: A Systematic Review. *Nonprofit and Voluntary Sector Quarterly*.
- Markard, J., Raven, R. & Truffer, B. 2012. Sustainability transitions: An emerging field of research and its prospects. *Research Policy*, 41, 955-967.
- Martin, C. J. & Upham, P. 2015. Grassroots social innovation and the mobilisation of values in collaborative consumption: a conceptual model *The Journal of Cleaner Production*.
- Matofska, B. 2014. *What is the Sharing Economy?* [Online]. Available: <http://www.thepeoplewhoshare.com/blog/what-is-the-sharing-economy/> [Accessed 22nd April 2015].
- Morozov, E. 2013. *The 'sharing economy' undermines workers rights* [Online]. Available: <http://evgenymorozov.tumblr.com/post/64038831400/the-sharing-economy-undermines-workers-rights> [Accessed 8th January 2015].
- Pache, A.-C. & Santos, F. 2013. Inside the Hybrid Organization: Selective Coupling as a Response to Competing Institutional Logics. *Academy of Management Journal*, 56, 972-1001.
- Pwc. 2015. *The sharing economy: how is it affecting you and your business?* [Online]. Available: <http://www.pwc.co.uk/issues/megatrends/collisions/sharingeconomy/index.jhtml> [Accessed 12th January 2015].
- Reay, T. & Hinings, C. R. 2009. Managing the Rivalry of Competing Institutional Logics. *Organization Studies*, 30, 629-652.
- Salamon, L. M. 1999. The Nonprofit Sector at a Crossroads: The Case of America. *Voluntas: International Journal of Voluntary & Nonprofit Organizations*, 10, 5-23.

Schor, J. 2014. Debating the Sharing Economy. Available:

<http://greattransition.org/publication/debating-the-sharing-economy> [Accessed 19th January 2015].

Schot, J. & Geels, F. W. 2008. Strategic niche management and sustainable innovation journeys: theory, findings, research agenda, and policy. *Technology Analysis & Strategic Management*, 20, 537-554.

Seyfang, G., Hielscher, S., Hargreaves, T., Martiskainen, M. & Smith, A. 2014. A grassroots sustainable energy niche? Reflections on community energy in the UK. *Environmental Innovation and Societal Transitions*, 13, 21-44.

Seyfang, G. & Longhurst, N. 2013. Desperately seeking niches: Grassroots innovations and niche development in the community currency field. *Global Environmental Change*, 23, 881-891.

Seyfang, G. & Smith, A. 2007. Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics*, 16, 584-603.

Smith, A., Hielscher, S., Dickel, S., Soderberg, J. & Van Oost, E. 2013. Grassroots digital fabrication and makerspaces: reconfiguring, relocating and recalibrating innovation. Available: <https://www.sussex.ac.uk/webteam/gateway/file.php?name=2013-02-swps-aps-sh-gdf-working-paper.pdf&site=25> [Accessed 8th January 2015].

Smith, A. & Raven, R. 2012. What is protective space? Reconsidering niches in transitions to sustainability. *Research Policy*, 41, 1025-1036.

Smith, A. & Seyfang, G. 2013. Constructing grassroots innovations for sustainability. *Global Environmental Change*, 23, 827-829.

Smith, A., Voß, J.-P. & Grin, J. 2010. Innovation studies and sustainability transitions: The allure of the multi-level perspective and its challenges. *Research Policy*, 39, 435-448.

Smith, D. H. 2000a. Definitions and Metaphors. *Grassroots Associations*. Thousand Oaks, CA: SAGE Publications, Inc. 7-33

- Smith, D. H. 2000b. Life Cycle Changes. *Grassroots Associations*. Thousand Oaks, CA: SAGE Publications, Inc. 167-195
- Ulmanen, J. H., Verbong, G. P. J. & Raven, R. P. J. M. 2009. Biofuel developments in Sweden and the Netherlands: Protection and socio-technical change in a long-term perspective. *Renewable and Sustainable Energy Reviews*, 13, 1406-1417.
- Walter, G. R. 2002. Economics, ecology-based communities, and sustainability. *Ecological Economics*, 42, 81-87.
- Weber, M. 1947. *The theory of social and economic organization*, Glencoe, IL, Simon and Schuster.
- Wengraf, T. 2001. *Qualitative research interviewing: Biographic narrative and semi-structured methods*, Thousand Oaks, California, Sage.
- Willer, R., Flynn, F. J. & Zak, S. 2012. Structure, Identity, and Solidarity: A Comparative Field Study of Generalized and Direct Exchange. *Administrative Science Quarterly*, 57, 119-155.
- Woskko, D. 2014. Unlocking the sharing economy: An independent review. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/378291/bis-14-1227-unlocking-the-sharing-economy-an-independent-review.pdf [Accessed 22nd April 2015].
- Yin, R. K. 2014. *Case study research: Design and methods*, Thousand Oaks, California, Sage publications.

Appendix A: Interview schedule

Interview participants were offered the options of participating in a face-to-face (8), video conference (2), telephone (2) or email interview (1) – number of interviews using each mode in brackets. This approach was adopted to ensure that potential interview participants were not deterred by a requirement for a face-to-face meeting, which would be rather unusual within the online community of Freegle activists. Each interview was semi-structured and adopted a narrative based approach (Wengraf, 2001), with the opening question asking the activist to tell the story of their involvement in Freegle. Follow up questions explored key aspects of the narrative and sought to develop insight into how Freegle had changed over time.

	Date of interview	Format of interview	Length of interview (mins)
Activist 1	25/04/2014	Face to face	83
Elected representative 1	01/05/2014	Face to face	34
Elected representative 2	02/05/2014	Face to face	73
Elected representative 3	14/05/2014	Phone	40
Activist 2	22/05/2014	Face to face	40
Activist 3	08/08/2014	Face to face	67
Activist 4	11/08/2014	Online video conference	54
Activist 5	13/08/2014	Face to face	66
Activist 6	14/08/2014	Online video conference	60
Activist 7	10/09/2014	Email	n/a

Activist 8	26/09/2014	Phone	43
Activist 9	27/09/2014	Face to face	34
Activist 10	28/09/2014	Face to face	7

Table 2: Interview schedule

Appendix B: Case narrative – the development of Freegle

The emergence and subsequent development of Freegle is entangled with the history of Freecycle, a network of online free reuse groups which emerged in 2003 in the USA and rapidly grew across the world. By 2009 more than one quarter of ‘Freecycling’ activity was taking place in the UK, and tensions between UK volunteers and the US based leadership of Freecycle had also emerged. The leadership of Freecycle drew heavily on the institutional logic of the ‘corporation’ and over time the governance of Freecycle became increasingly centralised and hierarchical, whilst the leadership grew increasingly professionalised, and new organisational goals emerged, including income generation and trademark protection. These developments were contested by some UK volunteers, who, drawing on democratic institutional logics and associated grassroots values, sought more democratic organisational processes and greater autonomy to develop their groups to address the needs of their local communities. After extensive negotiation between the two parties the tensions proved irreconcilable and in September 2009 approximately 200 volunteers left Freecycle to form Freegle.

The founding members of Freegle were faced with some fundamental questions: What form of organisation should Freegle be? Who can be a member? And what are Freegle’s goals and values? These questions were initially addressed through a series of polls in which volunteers voted to establish Freegle as a democratic and decentralised association. The objectives of this association were to foster collaboration and mutual support between volunteers, to develop a shared technological infrastructure for Freegle groups, to raise awareness of Freegle nationally and to

promote the practice of reuse. A series of working groups, open to all volunteers, were also established to deal with the practicalities and details of establishing Freegle as organisation, whilst elections were held and the first group of representatives (reps) were elected to coordinate activity across the network of Freegle volunteers.

Much of Freegle's activity during 2010 was internally-focussed and tactical in nature, as a core group of volunteers sought to strike a balance between the ideal democratic system of governance and a system likely to prove workable in practice. The governance system that emerged by the summer of 2011 was strongly shaped by the shared values of Freegle volunteers including democracy, voluntarism, openness, localism and individual autonomy. However, there was some frustration that the limited resources which might have been dedicated to increasing Freegle's impact were instead dedicated to internally focused activity. The summer of 2011 saw the reps present a strategy report highlighting the pressures and issues faced by Freegle including competition from other reuse platforms and reducing levels of activity within Freegle groups. In particular the reps emphasised the reliance of the organisation on a core group of approximately 30 people committing unsustainable amounts of time to their voluntary roles and who were at risk of burnout. Hence, the reps argued that Freegle's governance system and organisational processes were unsustainable unless there was greater involvement from volunteers across the network. However, since Freegle's formation extensive efforts to increase volunteer participation had been unsuccessful, and a consensus was reached to 'streamline' the organisation. The subsequent efforts to streamline faced many challenges and were ultimately unsuccessful. In their report to 2012 Annual General Meeting (AGM) the reps warned that Freegle faced a choice between four options: (1) reducing the scope and activity of the organisation; (2) significantly increasing volunteer participation; (3) generating income and professionalising some aspects of organisation; or (4) continuing and possibly terminal organisational decline.

The 2012 AGM was followed by a poll in which volunteers voted to establish a working group to explore how the organisational structure of Freegle might be developed to support income generation and increasing professionalization. The working group reported in the summer of 2013 and recommended that Freegle make the transition from being an informal association to a legally recognised form of cooperative. This recommendation was on the whole received very positively by volunteers; however some expressed concerns that making such a transition would erode Freegle's grassroots values and ethos. In a subsequent series of polls towards the end of 2013 an overwhelming majority of volunteers voted for Freegle to become a cooperative, and the lengthy transition process began in earnest. Over the course of 2014 preparations were made for the change of organisational structure including establishing a limited liability company, electing directors and establishing new policies and working practices.