5 Catalysing transitions through the informational governance of climate change advocacy

Using Web 2.0 in the surfing world

Gregory Borne and Dom Clarke

1 Introduction

This chapter explores transitions to sustainability through the medium of a small non-profit organisation within the surfing world. Surfing as an activity is not only a uniquely coastal activity with multiple impacts, but is also described here as being embedded in a broader systemic network providing unique insights into coastal transitions. This approach is related to a theoretical framework that combines elements of Ulrich Beck's risk society with the notion of socio-technical transitions, which is then applied to the concept of informational governance. The increasing use of Web 2.0 as a medium that changes the dynamics of informational flows provides opportunities for non-governmental organisations to play a more central role in the distribution of information about a range of contemporary environmental concerns, including climate change. This altered process of information distribution is explored through a visible process of transition within the multimillion-dollar surfing industry and directed at an organisation that has been successful in facilitating that transition. Surfing, surfers and surfing organisations provide a unique opportunity to explore information governance, climate change advocacy and the role these play in sustainability transitions for the following reasons. Surfing provides unique opportunities to explore coastal and broader systemic transitions. It is an activity that combines direct and repeated engagement with nature. This is an activity that is impacted by the consequences of climate change through sea level rise and increased extreme weather events. Surfing presents a tension between cultural and subcultural norms, as it simultaneously grapples with notions of freedom, spirituality and radicalised behaviours, whilst being intimately embedded in broader global and corporate realities. Surfing also provides access to a large, globally disparate and heterogeneous, yet technologically connected community, as well as engaging communities and sectors beyond those of surfing. "A transitions… is a fundamental change in structure, culture and practice. Structure can include physical infrastructure, economic infrastructure or institution. Culture refers to the collective set of values, norms and perspectives and paradigm in terms of defining problems and solutions. And practice refers to the ensemble of

production routines, behaviour, ways of handling and implementing at the individual level" (Borne, 2015, p. 25).

It has been argued that the proliferation of sustainable development discourse on the global stage represents nothing less than an epochal transition from a modern to a reflexive modern society (Borne, 2010). This argument is based on the establishment of a symbiotic relationship between the central tenets of a risk society and that of sustainable development, and has been explored within the context of both local sustainability implementation and global governance processes. Beck's recent work has explored transitions within the context of *The Metamorphosis of the World* (Beck, 2016). For Beck, both climate change and the rise of digital technologies and communications form a central part of the architecture of metamorphosis in a risk society. Beck (2016) considers that if climate change is a fundamental threat to all of humanity, then it might bring about a transformative turn in contemporary life and potentially metamorphosise the world for the better; he calls this "emancipatory catastrophism". Taking these insights forward, Borne has synthesised these theoretical discussions with broader debates on transitions that exist within the socio-technical and transition management literature (Borne, 2018; Grin *et al.,* 2010).

To date, Grin *et al.* (2010) have offered the most comprehensive, extensive and critical analysis of the application of socio-technical and transitional management literature in the context of sustainable development (Geels & Schot, 2010; Rotmans & Loorbach, 2010; Grin, 2010). Grin *et al.* argue that whilst the topic of transitions has been studied and debated in multiple disciplines over a prolonged period of time, none of them "is applicable to the complex nature and multiple dimensions of societal transformations implicated in sustainable development" (2010, p. xvii). Four common themes emerge from the work of Grin *et al.* First, co-evolution where economic, cultural, technological, ecological and institutional subsystems reinforce and co-determine a transition. Secondly, the multi-level perspective forms a central analytical frame. The multi-level perspective explores the interaction of the niche, regime and landscape levels of analysis. What is important to recognise is that the three levels identified "…are levels of analysis rather than levels located at specific geographic, administrative of other types of real world locals" (Grin *et al.,* 2010, p. 324). Transitions result from the alignment of trajectories within and between these levels. Thirdly, the idea of multi-phase, which explores transitions over time with a transition occurring in four alternate phases. These are the pre-development, take-off, acceleration and stabilisation phases. And finally there is the co-design and learning, where knowledge is developed in an interactive and complex way with multiple societal stakeholders. However, it is also recognised that this is not learning "…in the sense of the transfer of knowledge, but more to learning in terms of developing in interaction with other viewpoints of reality" (Grin *et al.*, 2010, p. 5).

With the above in mind Grin *et al.* accept that theoretical bolstering is necessary; for example: "We acknowledge that the role of consumers and grassroots

initiatives is underrated and under-conceptualised, therefore we welcome new perspectives which theorise changes in demand-side practices as motors for transition" (Grin *et al.,* 2010, p. 331). To this end Grin (2010) suggests that introducing governance into this framework has a number of advantages. First, integrating governance into the transitions literature provides an historical contextualisation of transitions to sustainability. Secondly, the governance perspective emphasises not only the nature of transition as profound changes in both established patterns of action and the structure in which they are embedded, but also why these changes and practices in a particular domain are influenced by long-term societal trends outside that particular domain. Thirdly, a governance perspective addresses the politics intrinsic to transitions innovation. Taking these observations forward Ehnert *et al.* (2017) introduce the term 'multi-level governance' in an attempt to draw to the fore the notion of agency within the transitions literature. They suggest that "… while multi-level governance has been a long-standing theme in political science research, it has remained under-explored in the study of sustainability transitions" (2017, p. 2).

With the above in mind, this chapter adds an important dynamic to these observations by introducing information governance and then exploring how this has facilitated a transition catalysed by a particular organisation. Moreover, there is little engagement with the especially disruptive effects of new communication technologies. Therefore, the following introduces the notion of informational governance into this framework, providing a further and more sophisticated understanding of transitions within a reflexive modern world.

2 Informational governance

With its foundations in the work of Castells (2009), informational governance is a recent incarnation that focuses directly on the role that information and information technology play in steering society. Mol (2008) explains that perspectives on information governance build upon and share key concerns of the wider literature on new modes of governance, notably the growing involvement of non-governmental actors, the diversification of modes of governing from a monopoly of law-based regulatory intervention, and the complex interdependencies of different levels of governance, ranging from local to global. Within the broader framework, the concept of informational governance emphasises the key importance of information in fundamentally restructuring the processes, institutions and practices of environmental governance.

Information is increasingly regarded as a resource with transformative potential. Consequently, contemporary environmental struggles and movements have orientated towards shaping state governance, and increasingly have defined their agenda through the rights of access to information, production of information, verification of information, and

control over information (Mol, 2009; Toonen & Mol, 2013). For Soma *et al.,:*"Informational governance reflects thus on how increased information sharing and interaction transform societies towards more cooperation, empowerment, self-organisation, private governing and interconnectedness" (2016, p. 96).

The rapid development of many digital technologies is constantly reshaping the field of environmental governance; one such innovation is the production and dissemination of information via Web 2.0 (O'Reilly, 2007). New Web 2.0 technologies hosting social media have introduced new interactive communication channels for environmental organisations (Goldkind, 2015), at the heart of which contemporary online communicative tools such as hashtags (denoted with a #) provide organisations with a means of branding campaigns, and spreading information about core values and goals, to like-minded individuals (Sexton *et al.*, 2015). The dramatic rise of social media has led many to argue that it is an ideal tool to improve communication, enhance user engagement and amplify individual participation on such issues as climate change (Hestres, 2014, 2015; Schafer, 2012).
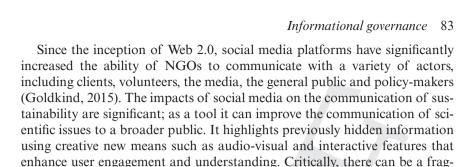
As Hestres (2014) points out, despite the impact of internet-mediated advocacy organisations, little is understood about how they work, even though non-governmental organisations (NGOs) are investing considerable effort into these new modes of communication, searching for new opportunities within nation-state governance structures. The internet is playing an increasingly important role in the efforts of environmental organisations and broader NGOs to limit climate change risks (Schafer, 2012; Shapiro & Park, 2018). Social and environmental movements addressing climate change are transnational in scope and have a dependence on digital technologies for the dissemination and diffusion of information as well as for communication and co-ordination. Internet-mediated social networks are a key ingredient of the environmental movement in the global network society (Ackland & O'Neil, 2011; Castells, 2009). Using digital technologies, NGOs have been engaging in practices that pose a challenge to conventional governance structures.

2.1 Web 2.0 technologies

Since the early 1990s websites containing information about environmental issues accessed via internet connections have dominated the communication of sustainability. However, during the early 2000s communication pathways developed considerably. The interactive nature of the internet changed to incorporate a many-to- many communication model, whereby much of the information became user-generated, with the differentiation between 'senders' and 'receivers' of information becoming ever more blurred. This platform of internet is commonly referred to as Web 2.0 or social media (Schafer, 2012). At present social media is generally taken to consist of internet-based applications in which individuals create, share or exchange information and ideas in virtual communities (Stevens *et al.*, 2016).

Since the inception of Web 2.0, social media platforms have significantly increased the ability of NGOs to communicate with a variety of actors, including clients, volunteers, the media, the general public and policy-makers (Goldkind, 2015). The impacts of social media on the communication of sustainability are significant; as a tool it can improve the communication of scientific issues to a broader public. It highlights previously hidden information using creative new means such as audio-visual and interactive features that enhance user engagement and understanding. Critically, there can be a fragmentation of public debate, as information in Web 2.0 is easily manipulated to fit the agendas of certain parties. Moreover, the lay audience may find it difficult to distinguish reliable information from that emanating from less reputable sources (Schafer, 2012).

Costs and benefits of these types of platforms aside, the increased capacity of digital technologies has enabled NGOs to emerge as legitimate nongovernmental communicators of environmental concerns and policies, as well as enabling an adaptive style of governance outside established state channels (Nulman & Özkula, 2015).

The borderless and truly global nature of the internet thus provides an arena for organisations and individuals endeavouring to activate change. NGOs interested in creating and sustaining social change have discovered social networking sites as an efficient means of identifying groups and allied organisations and empathetic individuals with common concerns and agendas. It has been argued that these connections form communities that are the nucleus of social change (Goldkind, 2015). The primary communication tool on many social media platforms is the series of brief messages (i.e., tweets, statuses, comments, updates and photos) that are sent to an organisation's followers on such platforms as Twitter, Facebook and Instagram. As a result, social media research has generally focused on the nature of the messages sent. However, examining the relationship between an organisation's social media and messages in conjunction with the reaction of users in the form of likes, comments, sharing and 'favouriting', allows the measurement of public reaction to an organisation's message and facilitates a shift from the perceptual to the behavioural realm. This type of analysis provides a quantitative and comparable gauge to measure the relative effectiveness of an organisation's messaging strategy (Saxton *et al.*, 2015).

The social media communicatory toolbox is ever-evolving, with new tools for communicating and interacting with the public emerging all the time (likes, comments etc.), and some tools such as the hashtag have become increasingly popular over a range of social media platforms including Facebook, Instagram and YouTube. Hashtags indicate topics or themes, and are particularly engaging due to their participatory nature. Hashtags are not predetermined by a set of users, giving rise to a hashtagging system that is a decentralised, user-generated, organising and classification system (Saxton *et al.*, 2015). Also, using hashtags to classify messages allows organisations to link messages to existing communities.

It is this ability of the hashtag to form *ad hoc* publics (Bruns & Burgess, 2011) or communities that is particularly meaningful. These hashtag communities can be fleeting in reaction to catastrophes or enduring communities of practice (Wenger, 2009) that evolve and spread information on given topics (Saxton *et al.*, 2015). Furthermore, hashtags allow these communities to become more involved in the decision-making process, and there is potential for NGOs to take advantage of this heightened participation in environmental action by reaching far beyond the limited scope of an organisation's physical membership (Roose, 2012). Empirically, therefore, the involvement of an organisation that utilises social media to form communities of practice may suggest that there are opportunities for inclusion of the online community in the decision-making process. The following section introduces the context of, and the specific organisation investigated for, this research.

3 Surfing, and Sustainable Surf's Deep Blue Life

Surfing is an aspirational activity that engages millions of people across the world, whether they surf or not. Surfers themselves have been described as oceanic stewards who are well aware of "sustainability issues such as water quality and pollution, impacts of tourism and local conflicts over coastal development" (Gibson & Warren, 2017, p. 87). An increasing body of work explores surfing's ability to catalyse change not only within the surfing community but across broader society (Borne, 2018; Borne & Ponting, 2017; Lazarow & Olive, 2017). Furthermore the conceptualisation of surfing as intimately embedded in broader networks, "whereby individuals are concerned with using natural areas in ways that sustain them for current and future generations of human beings and other forms of life" (Martin & O'Brien, 2017, p. 25). This also encompasses stakeholder involvement and the development of management plans to forward sustainability scenarios that include historical and cultural dimensions of the system.

As such, surfing's intimate connection with nature in the coastal zone provides a fertile space to explore transitions to sustainability (Borne, 2015, 2018; Borne & Ponting, 2015, 2017). Furthermore, the constructed space of surfing encompasses a broad range of local and global dynamics that are both heterogeneous and constantly changing. With regard to surfing organisations catalysing change, the surfing community has a rich tradition of attempting to draw attention to key environmental issues. Over the past three decades, environmental and social activism and engagement have increased on the part of the surfing community (Hales *et al.,* 2017; Ware *et al.,* 2017). The following section highlights a single organisation whose central mission is to transition the surfing world to a more sustainable operating model.

3.1 Sustainable Surf

Sustainable Surf was launched in 2011. The organisation's primary concern related to market transformation within the surfing industry, and facilitation of efforts of the community to change towards a more sustainable model of doing business (Whilden & Stewart, 2015). Sustainable Surf's initiatives include setting environmental standards for eco-friendly surfboards (ECOBOARD Project), managing waste collection for incorporation into recycled surfboard blanks (Waste to Waves), and working to reduce the environmental impact of surf contests (Deep Blue Surfing Events). In a short time, Sustainable Surf has embedded itself in popular surf culture, collaborating with contest organisers such as at the Volcom Pipe Pro, accrediting major surfboard brands with ECOBOARD project labelling, and recruiting high-profile professional surfers as ambassadors for the organisation. During 2014, Sustainable Surf were awarded the 'Agents of Change' award at the SURFER poll awards, arguably elevating the status, visibility and credibility of the organisation within the surfing community.

Therefore, Sustainable Surf provides an exemplary case study for the examination of the dynamics of a climate change advocacy campaign mediated on social media within the broader context of sustainability (Borne, 2018). Specifically, Sustainable Surf's Deep Blue Life (DBL) campaign, an initiative aimed at lessening the environmental impact of the surfing community while increasing well-being within the surfing population, is explored. The DBL campaign fits into the overall scheme of Sustainable Surf's mission to "… identify key barriers in culture and business that are preventing transformation to sustainability" and "… develop programmes that educate and enable actions that directly break through these barriers" (Whilden & Stewart, 2015, p. 131). Sustainable Surf have used a strategy of engaging both individuals and businesses to solve environmental problems, focusing much of their efforts on climate change and its related impacts.
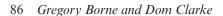
The Deep Blue Life initiative is the fourth programme by Sustainable Surf, designed to reduce an individual's environmental impact and address the effects of climate change (see Borne, 2018). The programme follows six broad categories of environmental impact, reducing the impact of ecologically damaging behaviours in ways that participants can implement in their own lives. The intention of the programme is to be simple, flexible and to appeal to a large demographic, which is generally speaking the surfing community

The DBL initiative was launched in 2014 and was assigned the corresponding social media hashtag (#deepbluelife), which first appeared on the photo- and video-sharing social networking site Instagram, on 28 January 2014. Data from Sustainable Surf's Instagram account were harvested for a 66-week period from the launch date up to 5 July 2015. An initial search for the term "#deepbluelife" was performed using the Instagram search facility. Data from all the posts containing "#deepbluelife" were then collected,

including Sustainable Surf's posts, Advocates of Sustainable Surf's posts and unknown user's posts. The research follows the approach given by Saxton *et al.* (2014) in making sense of the data. An inductive categorisation analysis was performed on the data collected, enabling the research to identify strategies unique to social media.

3.2 *The Deep Blue Life initiative Instagram activity*

During the period 28 January 2014 through to 5 July 2014, Sustainable Surf uploaded a total of 64 posts to the organisation's Instagram account. These posts consisted of 63 images and one video post. On average, Sustainable Surf posted approximately one item per week. An important measure of public engagement on social media is the number of followers an organisation attracts (Saxton & Waters, 2014). The number of followers is an indication of the size of audience Sustainable Surf is capable of reaching on a given social media platform, as well as a reflection of users that have made a conscious decision to connect with Sustainable Surf (Saxton *et al.,* 2015). During the sampling period, Sustainable Surf had an average of 4,705 followers, ranging between 4,672 and 4,738. At the same time, the organisation itself was following an average of 322 other Instagram users, with a range of 290 to 354.

A useful proxy of engagement and popularity on Instagram is the amount of likes and comments each post can gain (Sheldon & Bryant, 2016). The mean amount of likes that each Sustainable Surf post gained was 108 (STD 39), with a range of 47–230, and the total number of likes during the sample period was 6,937. The mean number of comments per Sustainable Surf post was 3.6 (STD 3.3) with a range of 0–14, with a total amount of comments for the sample period being 233.
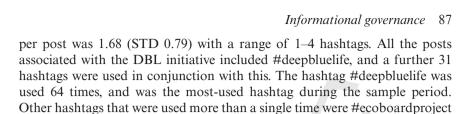
The amount of likes remained above 60 per post with the exception of six posts, whereas more interactive engagement in regard to comments was considerably less with only 14 comments made two occasions. The mean number of likes that each advocate of the DBL gained was 88.61 (STD 137.85), with a larger range of 5–486, and the total number of likes during the sample period was 1,861. The mean number of comments per Sustainable Surf post was 4.3 (STD 4.5) Three 'spikes' within the data set were evident; these posts were created by Rob Machado (@robmachadofoundation), Alison Teal (@ alisonadventures) and Greg Long (@greglong) respectively, all three of whom are members of the ambassador team at Sustainable Surf. Interestingly, there is a positive correlation between the spike in the likes and comments, suggesting that the ambassadors of Sustainable Surf foster greater engagement with their posts than a 'normal' advocate.

3.3 *Analysis of the hashtag #deepbluelife*

Sustainable Surf used hashtags sparingly during the sample period. Of the total 64 posts, 105 hashtags were included. The mean number of hashtags

per post was 1.68 (STD 0.79) with a range of 1–4 hashtags. All the posts associated with the DBL initiative included #deepbluelife, and a further 31 hashtags were used in conjunction with this. The hashtag #deepbluelife was used 64 times, and was the most-used hashtag during the sample period. Other hashtags that were used more than a single time were #ecoboardproject (six times), #ECOBOARD (five times), #wastetowaves (four times) and #deepbluesurfingevent (twice).

During the sample period, Sustainable Surf were not the only users of the hashtag #deepbluelife. Sustainable Surf was the largest user, while other users have been categorised into DBL advocates and unknowing users. Sustainable Surf had the highest percentage of #deepbluelife use with 67.4%, Deep Blue Life advocates had 22.1 % of the use, and unknowing users of the hashtag made up 10.5% of the total use.

3.4 Effectiveness

To gauge the effectiveness of the dissemination of climate change and sustainable lifestyle advocacy, this research used the hashtag #deepbluelife to chart the course of Sustainable Surf's online social media activity. In line with Saxton & Waters (2014), Sustainable Surf's campaign points to the opportunities within smaller-scale social media-based campaigns that can be more meaningful to those receiving them, and have the ability to engage with key influencers rather than an inattentive larger audience.

Also, by exploring the activity of DBL advocates of Sustainable Surf on Instagram, it was evident that the supporting community played an important role as 'co-communicators' of the hashtag #deepbluelife, endorsing the DBL campaign, and having approximately one-fifth of the total hashtag usage. Although engagement in terms of likes and comments with followers was fewer than that of Sustainable Surf, its significance is no less important. Within the DBL advocate community there lie potentially notable influencers to the wider online surfing community. Champions of the DBL such as Greg Long (@greglong), two-time World Surf League Big Wave World Champion (Surfing Magazine, 2016), and Rob Machado (@robmachadofoundation) (Machado & Toth, 2015) represent a group of professional surfers, which within the surfing community at large have significant power of influence and ability to inspire (Thompson, 2015). Many surfing celebrities also advocate environmental and sustainability-related causes which intensify this connection between chosen celebrity and the message projected (Machado & Toth, 2015).

3.5 Classification of Sustainable Surf Instagram posts

Table 5.1 presents the six categories of the BDL initiative goals, along with two additional categories added by means of inductive analytical processing. To develop the supplementary classifications, the images and text from

Table 5.1 Categorisation of Sustainable Surf Instagram posts

Category/initiative goals	Frequency of use	% use	Total % use
Health management	15	23.44	64.06
Waste management	12	18.75	
Renewable energy	2	3.13	
Cleaner transport	3	4.69	
Community outreach	5	7.81	
Climate impact	4	6.25	
Values	12	18.75	35.94
Arts	11	17.19	

Sustainable Surf's Instagram data set that did not obviously align with the existing initiative goals were arranged into themes. The themes that emerged were 'values' (general organisational values of Sustainable Surf) and 'arts' (defined as a visual painting, sculpture or event).
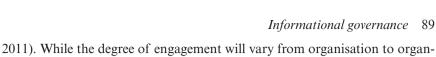
As an outcome of reviewing the Instagram data, Sustainable Surf's Instagram posts can be categorised into their respective initiative goal categories. Categorisation casts a light as to where the emphasis of an NGO's efforts are being made in terms of prerequisite goals. It emerged that there was general alignment of posts to the DBL initiative goals, with 64.04% of posts matching a DBL category goal. However, it was necessary to introduce two additional categories to fill in the gap of 36.94%; these categories were 'values' and 'arts'. The categorisation of posts is critical as it allows for further understanding of these posts within climate change advocacy (Saxton & Waters, 2014).

The inclusion of 'values' and 'arts' emerged as an important discovery, as these categories represent the organisation's unique and individual approach to communicating issues of climate change advocacy, and differentiates the BDL campaign from other NGO initiatives, along with developing the understanding of Sustainable Surf's social media strategy (Saxton *et al.*, 2015). Differentiation of the BDL campaign is critical within an already crowded surfing-based NGO market (Lazarow *et al.*, 2008). It can be argued that the unique characteristics of a campaign such as DBL can give legitimacy and leverage within decision-making circles (Thorpe & Rinehart, 2010).

Furthermore, the distinctive identity of the DBL campaign provides an alternative vocabulary of climate change advocacy, broadcasting alternative or ignored issues and providing a new position of congruence for the community involved, in turn strengthening the movement (Buttel, 2000). While it could be argued that the promotion of these other categories distracts from the fundamental goals of the DBL initiative, Auer *et al.* (2014) suggest that as long as an organisation's communication flow is actively engaging the community with the issue, and voicing their core values, it will provide a favourable condition to enable societal action on climate change (Moser & Dilling,

2011). While the degree of engagement will vary from organisation to organisation and campaign to campaign, Borne (2018) suggests that a balance should be maintained between campaign goals and the ability to be flexible and adaptable to the interactive social media environment. For Sustainable Surf the inclusion of 'arts' and 'values' to the DBL initiative adds extra merit as an emergent strategy.

3.6 Associating media

Hashtags, when used in conjunction with an event, catastrophe or scandal, can potentially heighten user engagement with the movement. An example of where Sustainable Surf used this to some effect featured an individual post that attained high levels of engagement with the most likes (230), and a high number of comments (11) in comparison with other posts during the data collection period. The post was based around news that the 11-time World Surf League world champion Kelly Slater was competing at the prestigious Bells Beach event in Australia, riding an ECOBOARD construction surfboard. Boykoff & Goodman (2009) explain that celebrities are becoming increasingly important non-state actors in the dissemination of climate change issues across the media. The coupling of a celebrity with a news event (as seen in the example above) arguably has the potential to enhance further engagement with an online campaign.

Stevens *et al.* (2016) note that events that are amplified and particularly problematic within the media attract further public attention, and consequently these occurrences can become news items; it is in these 'moments' when NGOs are provided a platform, whereby association with a news item can amplify the organisation's message (Anderson, 1997). Although within the DBL campaign there is a noticeable effort to align posts with news items, the regional nature of these news events critically affects the potential global reach of the post. During this research data collection period, there were many climate change-related news items that elicited global media hype.

4 Conclusion

The case study of Sustainable Surf and the DBL social media campaign offers relevant insights into the current conversation about new and shifting modes of environmental governance. Sustainable Surf's transition from physical activities, such as 'ECOBOARD Project' and 'Waste to Waves' programmes, to online activities is helping to shape a new form of informational governance, one that situates greater authority on information, and places the organisation at the fulcrum of information distribution about sustainability issues, and reduces the reliance on information coming from existing decision-making institutions (Nulman & Özkula, 2015). Sustainable Surf's acceptance and operational use of digital technologies to campaign for environmental advocacy on such mediums as Instagram, as discussed above, has

already contributed to progressions within informational governance. This is in line with multiple and burgeoning environmental groups as well as those more specifically located in the surf zone (Surfers Against Sewage, Surfrider Foundation, etc.).

The findings and discussion presented in this chapter suggest that there are both opportunities and limitations to employing social media to facilitate a climate change advocacy campaign. The opportunities that emerged for Sustainable Surf when using a social media platform during the DBL campaign included reaching an active community that shares the values of the organisation. Furthermore, the characteristics of the DBL allowed Sustainable Surf to effectively reach 'key influencers' within the online surfing community.

Limitations of using a social media platform were that, although there were benefits to a smaller scale campaign reaching a wider audience, the opportunity to reach a more global audience was suppressed. It also emerged that there was a disparity between the DBL goals and the posts; consequently, this research suggested this may distract an audience from the core goals, although it was found that the inclusion of the induced categories added value to the campaign. Additionally, it was found that news events offer the potential to disseminate climate change advocacy messages when aligned with a relevant post. Although there were attempts made by Sustainable Surf to use this strategy, the local nature of the news events used lacked global 'hype', so efforts to reach larger global audiences were bypassed.

It is suggested that an NGO's practice of social media within existing campaigning structures is "changing the mode of change" (Beck, 2016). Building on these observations, this chapter is able to critically complement the transitions literature by not only highlighting the impact of grass roots organisations but also addressing how digitalisation and hyper-engagement with organisational messaging can impact on the uptake of specific transition dynamics. Returning to the four dominant transition themes identified earlier in this chapter, the authors make the following observations. First, *co-evolution* is not only evident but exaggerated through the media reinforcement and direct engagement of a broader user community. With that in mind the boundaries of this co-evolution are significantly dissolved, complicating the identification of the transition mechanisms and actors. This observation impacts directly on the analytical frame of the *multi-level perspective.* The ability of social media to directly engage diverse yet connected user groups enables an overlaying of the informational governance dynamic on to this model, creating opportunities to develop a more robust and realistic model of transition processes. Climate change advocacy through Web 2.0 channels also calls for a rewriting of the multi-phase process of transition over time. Results presented in this chapter resonate with broader longitudinal research on sustainability transitions within the surfing industry that call for an expansion of the components of the multi-phase model with a closer alignment of the pre-development, take-off, acceleration and destabilisation phases (Borne, 2018). Finally, *co-design* in the context of this chapter is evident not in the context

of other established societal stakeholders but instead through a diverse and diffuse engaged population, and this was particularly represented through the 'off-mission' Instagram posts of values and arts. These insights provide significant scope for future research on transitions not only within the coastal zone but also from a broader systemic perspective, especially as informational governance will arguably become more important as digital technologies advance and evolve.

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