

Tucker, I. M., and Goodings, L. Mediation and digital intensities: Topology, psychology and social media. *Social Science Information*, 53 (3), 277-292

Mediation and digital intensities: Topology, psychology and social media

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Abstract

Social media are said to offer seemingly endless ways of connecting with people in a variety of online spaces. The mediated form that such communication takes has re-opened many theoretical debates regarding the status of relationships that are organized and managed online. In this paper we seek to explore these issues through the lens of topological thinking, and particularly through the work of Kurt Lewin (1890--1947). Lewin's topological psychology has recently featured in the social sciences as a way of overcoming some of the, frankly unhelpful, dualistic thinking that features commonly in psychology (e.g. subject-object, mind-body, individual-social).

Topological thought focuses on the *spatial distribution* of psychological experience, and therefore offers a social perspective not reliant on traditional notions of internalized

psychological states and traits. The kind of spatiality at work though is not one reliant on Euclidean fixity, but one that draws out notions of stretching, molding, bending and flexing. Space is not seen as a fixed property, but rather the form that psychological activity takes through connections and relations with others. In this article we seek to explore the potential value in characterizing social media activity topologically. This involves analysing people's experiences with social media, and how topological concerns of boundaries, connections and thresholds work (or not) in and through social media. Furthermore, focus is not only on extensive properties of social media, but rather how intensive processes are actualized and distributed in and through mediation.

'What is real is what has effects' (Kurt Lewin, 1936: 19)

Introduction

Topological thinking has recently entered social and cultural theory as one way of retaining notions of fluidity and multiplicity without falling foul of the problem of abstract virtuality (Lury et al., 2012). In this article we will explore the utility of topology, as a process theory of connection and distribution, in relation to social media in which the potential for seemingly endless forms of communication and connection is often stated to allow multiple opportunities for self-presentation (Turkle, 1995). Communication in and through social media is often presented as 'virtual', and consequently positioned as being separate or different to 'offline' forms of communication. Alternatively, we argue that communication (online and offline) is a grounded consequence of the topological distribution of information as an agent of individuation. In such a reading, information is not an object but a conditioning agent of change, something that acts to set the possibilities for future activity in spaces of movement and transformation. Therefore, 'being online' is more than the simple act of sitting at a computer and communicating with a distinct set of online relations. This is primarily due to the way that many digital media devices keep people continually connected to Facebook, email and other applications; all of

which keep them 'online' even when they are 'offline'. Furthermore, 'being online' is no different to 'being offline' in that we argue (following Lewin's process ontology) that things should not be treated as self-contained temporal occurrences that are only relevant in one specific spatial environment.

Being online is made knowable through ongoing relationships between the specific practices of online activities embedded within a whole set of other people, places and things. Brown and Stenner (2009: 38) argue, 'things are always-already in the midst of other things and this means fundamentally *mediated* by other things'. We cannot treat the decision to use Facebook or any other form of social media as somehow dislocated from the 'midst of other things'; it is through these things that our experience is mediated. Michel Serres' (1982) work on mediation also suggests that it is useful to explore the typically unrecognized relationship between the medium and the message, as it identifies the problematic elements of communication as essential to the overall success of the communication. To Serres the 'noise' is a third party in any communication and it is only through an engagement with it that communication can come into being. For example, in a social network site, noise could be the status updates, news feeds, photographic updates and other forms of textual communication that need to be traversed by the practiced social network user in order to carve out spaces for communication. Noise is indistinguishable, destructive and, most importantly, essential to the everyday use of social media. Topology offers an empirical way of analysing how communication operates in the mediated (and 'noisy') spaces of social media. Understanding such communication as mediated is not, in itself, sufficient to analyse its complexities. That is where developing a topological approach can help.

The current use of a topological approach aims to conceptualize being online in a way that extends the dynamics of social interaction and recognizes how functions such as noise and mediation are central to understanding online communication practices. Typical approaches to the psychology of communication include a historical connection to a different movement in mathematics, primarily the Shannon-Weaver (1949) model of communication, where the

successful transmission of communication relies on the message being moved from the 'information source' to the 'destination'; two points that are fixed in space and time. From this perspective, any 'noise' is recognized as an external force that disrupts the flow of the message from source to destination. In transferring this model into a psychological domain, the 'information source' and the 'destination' are typically intended to represent two different people, and the model illustrates the need to consider how the message can be transmitted and received by people as processors of both verbal and non-verbal information. In a now-classic study in psychology, Argyle et al. (1970) show how the 'message style' (varying from friendly to aggressive) can impact on the delivery of the message, showing the benefits of a 'friendly' message on the likelihood of delivery. There are a number of criticisms of this approach to understanding communication (see Beattie, 2003 for review), but we see the main difficulty as the inability to appreciate how media and technology affect mediation (and mediate affect) during the process of communication.

Marshall McLuhan (1995) argues that the message is of little consequence compared to how the medium itself provides an opportunity to extend our affective connections with the world. Even though McLuhan's commentary on this subject was many years before sites like Facebook and other social media, it is clear how this argument is essential to illustrate the affective power of social media technologies. For McLuhan and Powers (1989), each medium has a particular way of affecting the human sensorium, and it is through certain technologies that we can achieve differing levels of affective engagement (e.g. 'hot' and 'cool' media). This opposes the Shannon-Weaver model of communication by contradicting the linear, geometric appreciation of communication technologies and recognizes the need to examine both the medium and the context for the way they affect individuals and societies, identifying how all technologies have embedded within them certain assumptions about time and space. Thus the 'message' is only comprehensible if it is considered within the space and time in which it is produced. McLuhan's position has been said to be deterministic in favour of technology (e.g. by Raymond Williams, 2003), a claim that relates to a common, and important, debate regarding the

relative status of technologies as agentic entities. Lewin's topology offers a way around this debate through the removal of dualistic approaches to communication and recognizing the importance of psychological events in terms of the totality of possible events in any given moment. A topological space is one in which distinctions between bodies and technologies are not made in a traditional sense, as the prime focus is always on the formation and subsequent psychological implications of topological regions and life spaces. Therefore, using Lewin's approach provides a distinctive opportunity to develop McLuhan's ideas in a way that continues to overcome the problems of Cartesian thought and allows for a topological approach that attends closely to the psychological aspects of mediated communication.

Lewin's topological psychology

Kurt Lewin's (1936) topological psychology emerged at a time when psychology was coming to be dominated by the development of methodologies that sought to render psychological activity dependent on internal characteristics that could be analysed through the use of stimuli in experimental settings. These approaches were seen as more scientific and objective due to their use of methodologies developed from disciplines of natural sciences rather than the philosophical roots of early psychological thinking (Danziger, 2000). Lewin saw a problem with such approaches in the form of their dualistic rendering of subject and environment, with psychological activity positioned *in* the subject. As a result, Lewin developed an alternative 'field' approach, which focused on studying psychological experience as *events* rather than *traits*, and *processes* rather than *objects*:

The center of interest shifts from *objects* to *processes*, from states to changes in state. If the life space is a totality of possible events, then 'things' that enter the situation, especially the person himself [sic] and psychological 'objects', have to be characterized by their relationship to possible events. (Lewin, 1936: 16)

Lewin's approach concerns the *distribution* of psychological events in terms of how activity emerges through the formation of relations and connections in the defining of a topological space. Here space is not seen in a Euclidean sense, as being defined by measurable dimensions in a geometrical manner, but rather as a space that is subject to alteration and lacking in fixity. Topology, for Lewin, is the mapping of the distribution of possible psychological events in a given space, in which activity is not only characterized in terms of the physical extensive aspects of the space (e.g. bodies and objects), but also as the *intensive* orientation of psychological activity. Each of these activities are structured in terms of a given 'life space'. The life space is total number of possible actions in any given moment and is continually shifting depending on the forces that encourage or restrict movement. Space is not reified in terms of affording particular experiences therein but is seen as the *form* that psychological experience takes. It is important to note that intensive operations are not categories that were previously bundled together as interiority (Mullarkey, 2006). Furthermore, DeLanda (2002: 24--25) argues:

Extensive properties include not only such metric properties as length, area and volume, but also quantities such as amount of energy or entropy. They are defined as properties which are *intrinsically divisible*: if we divide a volume of matter into two equal halves we end up with two volumes, each half the extent of the original one. Intensive properties, on the other hand, are properties such as temperature or pressure, which cannot be so divided.

Lewin recognized these concerns and sought to advance a vocabulary for the scientific representation of psychological life space that included an understanding of these indivisible, intensive properties. The key is not to identify the inherent geometrical properties of objects in space but to see space as subject to taking different shapes and formations, within an overall invariance. Here the geometrical aspects of topology differ from those of Euclidean geometry as objects that are distinct in the latter (e.g. a square or circle) become different configurations of the same figure in the former, because they are within the range of the different possible shapes a

topological space can take (DeLanda, 2002). As Lewin famously argues, ‘there is no topological difference between a drop of water and a sphere the size of the sun’ (1936: 88). Topological spaces are seen as invariant since they involve shifting, morphing and differentiating rather than being subject to tearing and breaking. This is the aspect that makes topology potentially useful for retaining notions of multiplicity and potential for change (in terms of topological spaces having a range of possible events), but without entering the domain of ontology through recourse to a domain of *virtuality* beyond actual experience, and therefore invisible to it (for further discussion see Brown, 2012).

Regions and boundaries

Lewin’s topological psychology is focused on addressing the distribution of psychological events as intensive processes as they shift, morph and alter according to the connections and relations actualized within a given set of possibilities. Central to these processes is the concept of *region*, which defines the space of free movement that a person is able to act into without coming in contact with a boundary (in any form). Regions are considered to be ‘connected’ if all points within the region can be located on a path that does not cross a boundary. If there is a *cut* across a connected region (e.g. a new friendship), this creates two separate regions in the same plane (i.e. the whole life space). These cuts typically result in a restructuring of the informational flow, so that two points in each of the different regions could not be reached by any path. But a cut does not always result in closed region, as there can also be cuts that do not cause a splitting of the plane into different regions. For example, in a situation where two regions are connected (‘twofold connected’), the cut forms an informational flow that allows the two regions to communicate. There are also topological regions that exist within other regions. These regions can be connected on multiple levels and are likely to be situated within one larger region. This is likely to be how regions operate in social media, as there are a number of temporally and spatially distinct regions of interpersonal connection that coexist within a larger, overarching region that contains a mass of other potential connections (online contacts as a whole).

Lewin confirms that it is of 'no great importance to determine exactly how many times a multiply connected region is connected' (1936: 104). However, it is important to explore the way these different regions are formed as open or closed regions, and in what ways they are spaces that encourage or discourage affective engagement. Lewin uses the example of two children in a bathtub to describe how regions can be formed in everyday action and where the space of free movement is shaped by the interactions with others. In this example, Lewin describes two children sitting at either end of a bathtub and who, initially, have equal space for free movement in the water. However, as one of the children becomes agitated the second child draws a line in the bathwater with a hand in order to carve out a space for restricted movement for the other child. This line symbolizes a cut in the informational flow and forms two separate regions of the bathtub, one for each child. The line in the water forms a boundary that shapes future interaction in the bathtub and is positioned as being deliberately restrictive for one of the children. This boundary is also noticeably not an actual wall between the two children but relates to the imaginary construction of a barrier that manages to affect the actual relationship between the two children.

The mapping of boundaries and the possibility for psychological activity within is the central task. With online spaces, such as social media, a boundary does not exist in a physical sense (i.e. it is not a space as such), but is manifest in the form of online informational spaces. Connecting through social media is a relatively new phenomenon and therefore challenges existing ways of organizing and managing social relationships. Whilst there is nothing new about the use of information as the primary means of communication, the way it shapes online activity presents several challenges. The lack of real-time face-to-face activity in social media means that the intensive work performed has to be done through a range of specific textual features (e.g. emoticons, status updates, comments) rather than through embodied visual cues (although exceptions such as real-time video calling do exist). Even very minute actions can affect the psychological sense of movement in online spaces, as in any other space. There are regions in social media that can restrict the space of free movement for a person online, and changes to

these regions can have important dynamic consequences for the rest of the people in the region. For example, being deleted as a friend in Facebook could form a distinct psychological boundary around any form of interaction with the person who instigated the deletion, and the impact of being deleted could leave many feeling unsure about the status of future interactions. Therefore, resistance to movement is felt across the entire region through the topological restructuring of the distribution of relations. These boundaries are not permanently fixed and over the course of time a boundary can shift and change. A region might not just be restricted to future connections but a previously blocked path might become open to a body of movement. Boundaries do not have to be entirely restrictive functions and, as discussed earlier, cuts in a topological space can also act to form alternative spaces of connection, which may include a desired kind of order or continuity. For Lewin, some boundaries are easier to pass than others, and the strength of a barrier is always defined in relation to the particular form of movement.

Lewin uses the terms 'quasi-physical', 'quasi-social' and 'quasi-conceptual' to describe the different aspects of psychological life space. Quasi-physical facts describe identical aspects of physical environment, quasi-social dictates the impact of a specific group membership and quasi-conceptual defines the functional importance of the way an individual views a particular subject or issue. Each of these areas is 'quasi' in definition as they appertain only to the influence on the person under consideration. They are also seen as thoroughly integrated aspects of an overall life space and as a result they do not operate in isolation. Boundaries can then be formed in each of the quasi-physical, quasi-social and quasi-conceptual elements of a life space. For example, as Lewin describes, 'for the man who cannot swim, a river may be impassable. Each insurmountable object is an example of an impassable boundary for quasi-physical locomotion' (1936: 124). The same also applies to quasi-social and quasi-conceptual facts, but there are varying degrees of concreteness in the way that these barriers are experienced (e.g. a social barrier might be seen as weaker at certain points). Lewin argued that communication is just as important for quasi-physical fields as it is for the social and conceptual fields, and considering the earlier example, the way a man views his ability to swim across a river is partly constituted

through his conversations with other people, which augments the quasi-physical status of the event. Furthermore, these boundaries also have the power to shape communication, meaning that the conversation about crossing the river is also shaped by the presence of the boundary in the communication. This influence could be embedded in any form of communication, and Lewin illustrates this point in relation to the power of simply 'looking at' someone as a way to establish contact and realize a sense of relational intensity, and where the attempt to avoid the eye contact could show the significance of the boundary in action.

In social media people are regularly confronted with a range of quasi-physical, quasi-social and quasi-conceptual challenges to movement. These challenges could be seen as barriers to future communication, such as making online friends with a group of people who have been friends for some time. In this circumstance, this might be considered as a quasi-social barrier that prevents an individual from having a sense of movement in that particular social sphere, but there may be points where this barrier is weaker than others, for example, one member of the group might be interested in becoming friends with the new member. This would give the new member access to the other members of the group through the friendship network of the other member. This shows how some regions can be entered by increased efforts to identify a way to cross the boundary, which could be in a social, physical or conceptual sense.

Lewin also identifies the problem of treating all issues as principally two-dimensional, when they clearly exist within the three-dimensional space of physical life. Lewin advocates the addition of an extra dimension of psychological life space in order to represent other ways that people can think about a problem. Here the future is part of the same life space, and the way people think about a particular problem is taken to have a quasi-conceptual power. Lewin describes the 'degrees of irreality' as the imagined sense of hope, fear or other forms of psychological representation that have the potential to affect the way we view our life space. As Lewin states, 'the totality of what belongs to the same degree of reality, for instance the world of wishes of a person at a certain moment, is itself a region' (1936: 197). Therefore, planes of irreality can be mapped topologically in the same ways as other planes of reality; whereby our

own personal thoughts and feelings are another region that should be considered as part of the 'possible' events in a life space. Ultimately there are n-dimensions that could be relevant to a psychological event. However the more dimensions we include, the more abstract the analysis becomes (DeLanda, 2002). Therefore, a person can exert a greater amount of fluidity between the boundaries in a more unreal level of life space, and this can impact on the movement of the person as a whole. This is not to say that we constantly leave our bodies at the moment of encountering a boundary, but that we use levels of 'phantasy' (as Lewin describes it) to look for ways round a particular boundary. Higher levels of irreality provide an opportunity to experience reduced levels of resistance to boundaries typically found in reality.

The aim of the analysis is to identify how connections online are organized and managed in relation to the concept of regions, and what kinds of distributions of psychological experience are made possible therein. Whilst Lewin wrote in a pre-digital media age, we adopt his view that 'one can treat everything as environment in which, toward which, or away from which the person as a whole can perform locomotion' (1936: 167). In this sense we focus on the kinds of locomotion made possible in and through social media.

Regions in Facebook

In this section we see some of ways people work to mark out boundaries in one form of social media, namely Facebook. Eight focus groups were conducted with students from a university in London, UK, in which students were asked about their use and activity with social media. As will be seen in the analysis, participants referred primarily to Facebook when discussing social media. They did though repeatedly use the term 'social media', and referred to other forms as well (e.g. Google); therefore we use the term social media generically, and specific forms (e.g. Facebook) when referred to by participants. The use of focus groups provided a flexible space in which participants could share and discuss any aspect of their experience. Focus groups lasted between thirty and sixty minutes, and were conducted following ethical approval from the host institution. In the following sections, we look at people's accounts of their experiences of using

social media and we see that their responses can be explored using topological principles. Analysis follows the principles of discourse analysis, in which talk is understood as performative and constructive (Potter & Wetherell, 1987). The particular version developed in this article approaches the performativity of talk in terms of how it relates to the management and organization of connections and relationships in and through social media.

For some participants, social media act as an extension of pre-existing relationships, and the nature of the connections thus had an established model to follow. For others, social media are mechanisms for creating new connections, and therefore some level of performance was required in terms of online communication, as a way of attracting new relationships. This performance featured as a common concern for the participants, particularly when faced with other people's projections of themselves online. Like drawing a line in a bathtub of water, the actions in Facebook depend on the desired form of movement and revolve primarily around decisions regarding the nature of connections and the potential communication that will result from these connections. In the following extract we see the possibilities for social relationships and associated activity related to the number of Facebook friends Sahira has.

Extract 1:

Sahira: I had all of them I had loads of guys on my Facebook and my boyfriend told me to delete all of them, so I've only got like 4 guys, but it just feels really empty cos I only have like 140 something friends now.

Delia: Yeah.

Sahira: And most of them are from my old school so I can't even check what they're doing so in that way I feel a bit...

Zohra: Like you want to stay in contact as well.

Sahira: Yeah even though you didn't talk to them you just want to see what they're up to, what they're doing.

Delia: Yeah.

Zohra: Like how they're doing and stuff.

Sahira: Yeah, exactly, so I can't even see that now so I feel a bit upset about that but I'll get over it.

From a topological perspective we see the Facebook friends are associated with the *manifold* of that online space. Sahira states that her boyfriend asked her to 'unfriend' the majority of her male friends, which left her with 'only 140 friends'. This decision acts to perform a *cut* in the region that restricts the flow of information and changes the way that the points are able to communicate. Sahira talks about this reduction resulting in a feeling of emptiness, as if 140 friends are insufficient and somewhat lacking. What we go on to see is that the connections with friends relate to a set of possible experiences and activities, in which the lack of friends forms a quasi-social barrier that restricts her ability to communicate with her current friends and reduces further possibilities for extending her network of friends. It is also clear that this barrier is unbalanced, as the experience of the communication is no doubt felt differently by the person being deleted. As Lewin would argue, the strength of a barrier can vary depending on the direction of the locomotion. For the previously connected friends, this barrier would be likely to take on a different value, as they may see no need for such a barrier. Some of the deleted friends may still wish to continue communicating with Sahira, and this would potentially require the use of a different form of communication where the quasi-social barrier is perceived to be weaker (e.g. by telephone).

The important aspect here is that the experience of the new barrier depends on the knowledge of the surrounding events. For example, Sahira justifies her decision to delete the friends in the context of her boyfriend's request, but the same event is likely to be experienced differently by the other members of the region, perhaps as some reflection on their personal relationship with Sahira. This shows the importance of the consequences of connectedness and non-connectedness of the region if one considers how Sahira is affected by the breaking-up of a

connected region. Any changes to the topological structure of the region can result in changes to the communication between the individual members and could weaken the inner connectedness of the region, which could be seen in terms of a set of changes to the mode of communication. Similar to Lewin's description of the two children in the bathtub, there has been a social action that performs a boundary between the two people in the region. This does not cut off all forms of connectedness in all directions, as Lewin argues the child in the bathtub can still make use of other forms of communication, but it is only the path between the two people that is directly affected. Similarly, Sahira can still use Facebook to contact her other friends, but there is now one path within the region that is directly prohibited.

Sahira's space online does not form only one region, but is multiple; with different modes of operation for the regions she has through social media. The reduction in Facebook friends shifts the intensive properties of that space. The field of possible psychological experiences available through her friendships online is reduced, which has a negative affective impact on Sahira, leaving her feeling upset. The likelihood of maintaining close relationships with such a large number of friends is somewhat limited, but the loss of some Facebook friends is more importantly felt in the reduction of future interactional possibilities, and the associated nature of the relationships that remain.

Colliding topological spaces

One problem with the need to create intense regions in social media is that this action includes an overlapping of potential connections and unexpected interactions. For example, in becoming friends in Facebook, two people are also connecting their individual friendship networks, which could lead to unanticipated connections between different members of the two networks. In the following example one participant speaks about this issue in detail:

Extract 2:

Sarah: This is where I have a bit of dilemma with social media because I would say that I would present things about myself, different things about myself, to different groups of friends or people I know. So I find that quite a challenging balancing act of actually, on Facebook, and also having having the issues of children. my children are teenagers on Facebook and whether I link up to them as friends and whether I really want to, so my friendship groups, my girlfriends and I you know have have er, I link on to their kids and then they link on to mine, and we sort of have a bit of a sort of mothers surveillance going on in that way, without getting too much information ourselves, but it's it's tricky. And then I found it professionally as well if I've had a professional hat that I'm wearing, and I'm using it or that my name's been mentioned in something to do with the media or some sort of presentation about an organization, and I've been part of that my name has been mentioned, then you know if you Google and you see, and then I might have got stuff going on on Facebook and then other students want, it's it's a challenge for me to to know what I want to say about myself and what I want to remain very private

Extract 3:

Sarah: I've had my identity severely challenged by social media, but maybe that's just my age for example you know I would say that I--- I would certainly have a way of presenting myself in Facebook. But then having been tagged in photographs of when I was 16 at school, I mean most people that that I know now would have no idea of what I was like then, they just experienced me as a as a mature woman, so I haven't I haven't liked that conflict of identities at all and and those that I may have known you know in my 20s that I--- I might have reconnected to have a very different perhaps impression, and I know that our group of school school girls, when we all found each other on Facebook to see what people were doing now, you just couldn't believe that some of the girls and they're so happily married and they're doing their Aga baking. I'm just thinking you were never like that before, so I think it gives, cos I don't know as I've gone through

my life I think my identity, as I've grown as a person, my identities have evolved and when I have all those sort of time slots on something like Facebook erm colliding in one you know image of me now it's it's it's not easy to handle it it can be quite embarrassing at times actually

In the two extracts above we see Sarah, a fifty-year-old female participant, present the management and organization of online selves as problematic. Sarah's Facebook activity is informed by boundaries that exist in offline regions. For instance, Sarah presents her professional self as separate from her parental self, two regions in her offline life that are separate with distinct boundaries and intensive properties. On Facebook, Sarah experiences these regions 'colliding', as connections are formed when online networks meet, which challenges her activity and engagement in social media space. Such collisions threaten new connections that do not exist in offline regions, e.g. between work colleagues and family and friends. The 'coming together' of these regions brings them into a proximity that is problematic for Sarah, creating intensive reactions such as embarrassment. Thus, the potential for connection is a powerful quasi-conceptual resource. We also see the colliding of two distinct social regions (i.e. parent vs 20-year-old self) in such a way that becomes a further source of quasi-conceptual concern. The colliding of quasi-social boundaries does not have to be an issue, for example connecting with past friends can often be aided by sharing experiences of becoming a parent. However, for Sarah it is the sense of forced collision that is the issue, which leads to her interpretation of such events being formed as a quasi-conceptual concern due to her perceived lack of control over the potential for new regions to be formed.

For Sarah, future connections are shaped by a negative set of feelings that stems from the possibility of undesired connections. This feeling is compounded by the knowledge that the structure of her future interactions is also likely to be shaped by these colliding sources of information and communication. Sarah's response shows evidence for the relationship between the momentary situation and life situation. Sarah is driven to feel negatively about the

momentary status of her Facebook experiences due to the immediate connection between the momentary situation and her life situation and the way the whole life space impacts on experience. Is it possible that Sarah might feel differently about the collisions in Facebook if her life situation was different? The fact that she does feel negatively about the Facebook connections shows how the transfer and feedback of information shape the experience. The momentary situation may change if the life situation is altered, and Sarah might see her Facebook connections differently if there was a change in her overall life situation (i.e. an increased connection to someone from her past might see her change her ideas about the ability to connect with previous friendship networks). In the following section, we see further details of the informational form that boundary making and new connecting can take in and through social media, particularly in relation to enhancing possibilities for future communication.

Anticipatory communication

Extract 4:

Int.: And are your relationships through social media different to face-to-face relationships?

Joe: Yeah yeah I think meeting people online you opens up a lot more than you would in face to face, and I think some people do give you more of a chance to kind --- kind of like express yourself, and get to know you more rather than judge you straight away. So I think that kind of gives you the chance to be yourself rather than trying to hide who you really are to that person, so yeah I think its different online yeah.

Mike: Yeah I think yeah I agree, I think like obviously a lot of people who are quite shy and quiet in person, I think they feel they can open up online cos its like they haven't physically met them, so I think they feel like they're not being judged straight away erm but then yeah its very different, cos, but then I guess you can share your interests with someone as well cos obviously with your friends stuff like that.

The above extract shows how regions produced online can be *felt* as more expansive than pre-existing offline relationships. Joe describes organizing his social media activity through using information to set boundaries that are perceived to be broader than those experienced offline. The boundaries set here are marked and laid out in and through the informational activity (Joe talks about ‘opening up online’), which supports Lewin’s argument for the possibility for cuts into a region to also increase information transfer and feedback. This shows how unexpected changes to the region can shape the connectedness for all members of that region. In Extract 4 Joe experiences the social media ‘space’ as more ‘open’ than offline spaces. This creates a distinction for Joe between online and offline connections. The experience of this distinction is presented as being due to the technology itself, namely that it does not involve face-to-face interaction, as the conditions of the online communication are contingent on the disclosure and organisation of information rather than on the embodied cues and reactions that feature in face-to-face communication.

The experience of being online is shaped by the feeling that it is a more open and less judgmental place, due to the lack of face-to-face interaction. Interestingly for Joe, social media is framed as a tool for meeting people, rather than connecting with existing friends and family. The perceived intensive opportunities present through social media impact upon Joe’s activity, which is calibrated in a more expansive way than in offline spaces. So, it is not so much that social media are de facto a more open space, but that Joe feels them to be so, and consequently is more informationally open online. The feelings of judgment experienced offline are not felt in the new connected regions through social media, which are produced as a broad set of informational boundaries where there is a deliberate attempt to create as open a region as possible, which illustrates the need to instil the life space with a sense of free movement. Joe is clear on how the dynamic condition for future communication depends on his position in a certain region and describes how he feels a better chance to ‘express yourself’ in online spaces. Joe has managed to

forge a path of successful communication in the online region that is premised on the need to continually produce further opportunities for communication.

Information as the agent of region setting

In the following extract of our interview with Paul, we see one solution to the problem of making regions relevant in terms of specific outcomes. Here we see Paul talking about using Facebook to communicate regarding an upcoming university exam:

Extract 5:

Paul: cos I think it do- it does influence the way, I'm aware that people will see my Facebook and I don't, the kinds people who have got on my Facebook, so I'll often direct questions to specific audiences within Facebook, like erm, for example last night I just put a question about what format is one of the exams in, and I know there'll only be a portion of my friends who'll be able to answer that question and they kind of know who they are, and so you don't need to put to and put you know the audience they can.

The use of information as the mediational force that marks out boundaries online and the subsequent range of affective possibilities present in a region online clearly features in the above extract. Here, Paul talks about the way he uses information to mark out regions online. For instance, asking a question about an exam on Facebook creates certain connections that are defined by the nature of the question. Only certain of Paul's Facebook friends are fellow-students who know about the exam, and therefore the relevance of the question sets the boundary of the created region. Here it is not Paul's perception or interpretation of a given space or interaction that sets the intensive parameters of present and future action, but a region is created through the informational connection made. In an offline context, interpretations of interactions and connections made are developed through the organization and interpretation of physical objects and people. In social media, the terrain is primarily informational, and yet can work in

similar ways to Lewin's topology. With Sahira and Sarah, the breadth of possible online connections was a central concern, with its management a challenge. For Paul the solution to the issue of mass connections, for which control can be an issue, is to rely on the informational activity to set the conditions for relations and online interactions to be made. This follows Alberto Toscano's argument, following on from Gilbert Simondon, that 'information is characterized by its being directed at "receivers not defined in advance"' (Toscano, 2006: 146). This requires feeling comfortable with making 'public' aspects of his life (e.g. exam details), but saves having to try to create an appropriate region in advance of communication.

Informational concerns

The challenges and concerns facing Sahira, Sarah, Joe and Paul revolve around the issue of living in online as well as offline spaces. Making a firm distinction between these two is unhelpful, as it precludes analysis of the nuanced and multiple ways that connections and relationships are managed and experienced in and through offline and online environments. One of the central issues at stake here is the form that experience takes when simultaneously living online and offline. The non-organic *informational* form of social media activity involves a level of visibility through multiple opportunities for connection, which do not feature in the same way when living solely offline. Here activity and online experience is not just a *representation* of offline life, but actively constitutes it, in a form that is primarily informational. The consequences of this for Sahira and Sarah are multiple, and largely revolve around the problems of coming to terms with the vastly increased possibilities for connecting with people in the past, present and future. On the one hand, this involves a sense of expanded space and opportunity, and yet on the other, the psychological *life space* is *not* immediately enhanced or broadened. Social media do not *automatically* produce new quasi-physical or quasi-social topological spaces, but they do facilitate the creation of new quasi-*conceptual* spaces due to the intensive regions produced from the perspective of users. The degrees of irreality have real effects and shape the way that people feel about the space for free movement in social media, for example, in the way

that Sahira speaks of the imagined difficulty in being able to keep in touch with the people she had to delete from her friendship network.

Here we see what happens when bodies connect with social media technologies. The form such activity takes is primarily informational, rather than solely organic or inorganic. Indeed, the forming of elements that come to be categorized as organic and inorganic only takes place through an actualization that follows the ontogenetic flow of information. It is the coming to terms with, and consequent managing of, informational activity, in the ontogenetic not the Shannon-Weaver sense, that grounds people's experience with social media. Understanding how connections work through offline and online spaces takes a level of expertise and familiarity with informational organization that is often not immediately at hand. With Sahira and Sarah, we saw the challenges that can arise when developing such skills. Of course, the perceived benefits, in terms of social activity, for many people mean that such challenges are dealt with, or ignored. Living without social media is seemingly not an option for many people.

Towards a topological view of social media

In using Lewin's conceptualization of the topological principles of psychology, we have been able to see how there are real effects in the psychological life space that are manifest in everyday conversations about social media. In any moment our topological relations are played out through a potential for movement at a physical, social and conceptual level. This movement can be transformed by the shape of the topological regions in which people interact, and these changes can be freely chosen by the individual or be driven by other changes to the topological assemblage of other relations in the region. At all times, what feels *real* is the ability to move and connect with other members of the region or to move from one region to another. This data shows that even the most simple of interactions (e.g. whether or not to add someone in Facebook) can form a real boundary in topological life space due to the way that it impacts on the potential for connectedness. This perspective intentionally identifies the relationship between people, spaces and things. The material and embodied boundaries that shape our lives are equally

relevant in the formation of psychological regions and the structuring of interactions therein.

There is no one space of psychologically real facts that could be applied to a range of people, as it is only in an individual's psychological life space that different facts develop their own meaning.

This analysis has purposely focused on those moments where there appears to be a social commentary on the entangled nature of the social and the technological, particularly emphasizing some form of controversy or concern. Sahira discussed her difficulty (or not) of deleting Facebook friends; Sarah, of the way that different lives in Facebook can collide in unexpected or unanticipated ways; and in the later extracts, Joe and Paul spoke of the problems associated with trying to keep the profile communication as open as possible in order to influence future opportunities for connection. Using this topological psychological perspective allows for a focus on the messy or controversial elements of everyday life, in a similar way to work in actor-network theory (ANT) and science and technology studies (STS). What both ANT and STS emphasize is a need to acknowledge the technological mediation of a space of controversy. However, social media do not simply allow for topological analysis of controversy, they also are objects that embody such operations. Over the last few years, the broadening out of digital social media has seen an increased discourse relating to the controversial elements of social media usage (e.g. social network sites as responsible for bullying, drug use, eating disorders, depression, anxiety and other forms of psychological distress). Thus, technologies enter a new topological state when they become a site for controversy. Marres (2012: 299) captures this point when arguing that topology provides 'a device, and not just a theory, for imagining the relation between technology and society differently'. Marres also argues that one potential danger here is to make only a 'weak' use of topological thinking, one that only encourages complexity within the topological frame and fails to notice how objects themselves (i.e. social media) can act as objects of topological controversy. Therefore, future research should recognize both how topology is concerned with the fluid composition of a range of actors in information spaces *and*

how the use of topology can also shape the way we *imagine* the relationship between the social and the technological.

Funding

This research was supported by an internal grant from the University of Roehampton.

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Ian Tucker leads the Psychology and Social Change Research Group at the University of East London, UK. His research activity straddles the areas of social psychology, media studies, and science and organisation studies. Ian's work is broadly concerned with analysing the social psychological impacts of digital technologies, as well as the multiple relations between space and distress. He is currently working on an EPSRC funded project exploring the impact of social media on peer support in mental health communities, and a project analyzing the relations between mental distress and space in hospital settings.

Lewis Goodings is a Lecturer in Social Psychology at Roehampton University. Lewis¹ research is dedicated to the area of computer-mediated communication and a qualitative form of social psychology. He uses a constructionist approach to study new forms of online communication and focuses on classic notions of identity, community and self. This includes looking at intersections of the body and technology in the use of social media. He is always looking to explore the broader social dynamics of technology, discourse and organisation.

