

Sense of Participation

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Abstract

This paper explores the sense of participation of a spatially distributed individual—in the intersections of physical and mediated networks. This sense is fundamental to an individuals' experience as a participant in systems designed to this purpose including today's social media and new media generations of infrastructures. Mediated networks facilitate migration of mind and feelings communicating information, knowledge and values through mediated interaction. Ongoing open-ended processes of simultaneous physical and mediated actions of an individual in everyday life pose new existential (identity) questions that suggest fundamental changes in the individual process of belonging (being-at-home) to self, others, and things in time, place and context. To explore the new sense of participation this paper introduces three concepts: trajectories, trade-offs, and individual distributed world to frame the sense of participation. The concept of trajectories depicts how existential physical migration and virtual migration trajectories conflate with each other. The concept of trade-offs expresses the relation between performance and significance of presence (participation) experience in the variety of merging on- and offline day-to-day interactions. The concept of an individual's distributed world delineates how being here and being there merge into one experience for an individual in day-to-day participation practices. Together these 3 concepts provide a conceptual framework with which to explore the sense of participation.

Keywords: participation, migration trajectories, presence, trade-offs, individual distributed world, social networks, participatory systems

1. Introduction.

This paper explores the sense of participation of a spatially distributed individual—in the intersections of physical and mediated networks. This sense is fundamental to an individuals' experience as a participant in systems designed to this purpose including today's social media and new media generations of infrastructures.

In today's networked society realities are merging, physical location is no longer the primary determinant for meaningful discourse. New norms and values are emerging. This paper explores the emergence of a new sense in human perception: sense of participation. Current experience suggests that the sense of participation is orchestrated in the intersections of physical and mediated network systems in day-to-day interactions. This paper explores the construction of a spatial distributed individual— as an open-

ended spatially distributed system with migration trajectories in which the sense of participation is embodied with ongoing online and offline presence and a variety of processes that are essential to participation. Fundamental to this construction are the existential questions that implicitly shape the human process of belonging (being-at-home) with self, others and things, in time, place and context.

In today's network economy, people's everyday public and private lives are comprised of practices mediated by the pervasive use of media technologies (Ling 2004; Castells 2007). The debate about 'who is the self' in the information age in western societies is on-going (Barglow, 1994). An irrevocable change of the individual self is the result of the effects of mediated networks—networks that are restructuring human consciousness. "A shift occurs in subjective architecture, in psyches: from the individual monoidal 'I' to a collectivized, parallel, and porous mode of self-enunciation"(Rotman, 2008:83). This brings the question about the self to be no longer as one of identity or persona, of who the self is, but on how and what is the self. In fact today it is no longer possible to discuss the self as a single and unified discourse but as a distributed individual embodied in techno-social processes. On these grounds, an understanding of the spatially distributed individual sense of participation is essential in the design and development of any participatory strategy.

Digital networks perpetuate a continuous process of simultaneous trajectories (physical and mediated) that shape the way individuals participate with self, others and things in time, place, and context. Internet has given the notion of participation a new meaning in individuals' day-to-day social life—ongoing real time mobile communication. This challenges traditional social structures. Everyday practices change by the incorporation of the speed and scale of communication that networks facilitate (Castells, 1996). Therefore this paper introduces three concepts that in relation to each other offer an approach to analyze new human/network interaction from the perspective of the experience of being-and feeling-at-home: trajectories, trade-offs, and individual distributed world.

In physical and mediated networks context, such as participatory systems, online and offline interaction merge into one experience (Nevejan, 2007). The sense of being here and being there happen simultaneously. The use of Internet, digital games or avatars among other media possibilities is becoming an integral part of people's day-to-day social life. This paper explores how in merging realities the spatial distributed character of interaction is concealed, while its performance and significations define migration trajectories through which individual experiences are constructed.

Participatory systems study participation in the context of merging socio-technical and ecological realities. They function in the context of democracy, but also in future material and immaterial generations of infrastructures such as transport, energy or water systems (Nevejan, Brazier, 2012). Facebook, Twitter and TomTom are examples of participatory systems as are financial markets. These systems require support in multi-level coordination and decision-making (in line with the notion of poly-centricity and multi-scale governance) at local and upper levels. Today complex participatory systems designed for public functional social organization intermingle with private social networks. The thin line between private and public life is at risk.

Systems have become participants in their own right in communities of people (Brazier and van der Veer, 2009). For participatory systems¹ design, the prevailing question is how should systems participation be designed for human beings to be willing to accept them? This question manifests the need of the individual (user) to be an interactive participant. The sense of participation, traditionally based on sharing time and place in any given context, is being shaped by the ubiquitous and pervasive use of networks and infrastructures. This paper explores how to analyze this new sense of participation.

2. Sense of Participation as Migration Trajectories

The concept of migration trajectories depicts how existential physical migration and virtual migration trajectories conflate with each other.

The mobilization (physical, mental and digital simultaneously) of the individuals becomes fundamental in the development of participation practices (rules and habits). Individuals may become subjected to the question: Where am I going now? Inspired by human geography studies, this paper sets its grounds for exploration in individual movements. They are denominated as migration trajectories. This term traditionally refers to physical migration, however, in a global society in which mediated networks play a crucial role, migration is no longer a physical process but a simultaneous process of both physical and mediated networks systems. This paper suggests an understanding of the process of migration as one that facilitates both physical migration and migration trajectories of

¹ Participatory systems is a term that refers to the design of distributed social-technical-eco-systems in which human beings participate and accept responsibility for their words and deeds (Brazier, 2011)

mind and feelings in mediated interaction in terms of communication of information, knowledge and values. Migration trajectories are the vehicle with which the character of a spatially distributed individual is constructed within the context of pervasive networked participation in day-to-day interactions. This paper presupposes that there are significant similarities between the process of the lived participation experience in physical migration with the process of the lived participation experience in the intersections of physical and mediated migration in everyday life.

In physical migration whether the process is voluntary or involuntary physical migration entails feelings of dislocation and more importantly, questions of alterity, the *unheimlich* or the uncanny—the attitudes exhibited toward the foreign place and toward the place of origin and how these attitudes change as one moves back and forth between the two (Madison, 2010). Up to this point two things are relevant to participation experiences. First voluntary migration is considered mainly an existential migration process as it is made by self-choice. Nevertheless voluntary migrated individuals regularly ask themselves ‘did I have a choice?’ (Madison, 2010) Second, the *unheimlich* or the uncanny are both referred by Freud and Heidegger to the experience of being-at-home alluding to the feeling-at-home which is central in the understanding of the process of belonging. Do I feel at home?

Migration trajectories approach to participatory systems design proposes that the question to be posed now is: how should systems be designed for human beings to make them feel they belong to each other? This question manifests the need of the individual (user) to feel at home in real life including the systems she/he participates in day-to-day social life. A pervasive participatory context, which perpetuates continuous movement, may be encouraging the spatial distribution of the individual. Consequently in this sense individuals may demand for new physical and emotional adaptations for being in the world in continuous physical and mental dislocation, virtual multidimensionality in real time, and, historically, in a number of diverse information formats. This conceptual perspective attempts to know how individuals negotiate series of moments of being- and feeling-at-home in the world in hybrid participation contexts.

The individual experience of migration has effects in individuals’ ways of being in the world. There is evidence to suggest that cross-cultural experiences, while exciting and enriching, are not without struggle, pain and distress (Rapport and Dawson, 1998). And that in an open-ended world system of networks in which the network use growth went from 40 million people in 1995 to 1.5 billion in 2009 (Castells, 2009) the infinite number

of possibilities may have increased the will to experience the uncanniness of the whole world. Individuals' need and desire of continuous migration (body and mind) has brought out a great number of new generation of network systems and infrastructure developments for all kinds of applications, making the individual constantly migrate from one to the other changing conventional forms of everyday life. The complexity of approaching the experience of merging realities as migration trajectories not only underlies physical dislocation (performative), but also the multidimensionality of the individual self-existence (signification). (see paragraph 3)

In these terms similarities exposed above between physical migration and digital migration enables the construction of a conceptual framework in three fundamental matters: First, how an open-ended world of network opportunities shapes the experience of being-at-home (feeling-at-home) by loosening up or constraining the process of belonging with self, others and things in time, place and context. Second, how the feelings of dislocation perpetuated by a continuous, even multidimensional, migration trajectory process shape the individual day-to-day participation practices (rules and habits). And third, how to know if the individual participation experience with self, others and things in this simultaneous migration context is voluntary (by choice) or involuntary (forced by automated systems or the ones whose design and control them) or by the conflation of both.

The concept of migration trajectories builds on human geography studies for understanding the new emerging sense of participation. As Yi Fu Tuan stated, "much of human story can be told as one of migration" (Escapism, 1998: 9). However this paper does not attempt to bring about a new debate on migration studies but clearly focus on exploring the sense of participation of the individual by framing the performances that are representative of his or her geographical movements and the significations that emerge in the intersections of physical and mediated networks.

3. Trade-offs: Presence

The concept of trade-offs expresses the relation between performance and significance of presence (participation) experience in the variety of merging on- and offline day-to-day interactions.

Human presence is described as the 'strive for well-being and survival' (Riva, Waterworth & Waterworth, 2004). In the steering towards the beneficial for self and others, migration

trajectories voluntary and involuntary emerge. Ongoing open-ended processes of simultaneous physical and mediated actions of an individual in everyday life pose new existential (identity) questions that suggest fundamental changes in the individual process of belonging to self, others, and things in time, place and context.

In the process of migration, migration trajectories record the effects of presence in the ways in which its performances are mobilized as resources to create significance. The involvement of human body with mediated networks is what here is called trade-offs, that is, complex negotiations between the individual physical and mediated trajectories. Because mediated networks facilitate migration of mind and feelings communicating information, knowledge and values through mediated interaction, they are embodied in a variety of participation practices (rules and habits). When individuals are in continuous migration trajectories (being here and being there) they all create historical performative shifts that carry many kinds of implication and significance. This relation between performances and significances can be understood as effects of mediated networks.

Being present here and there, now or even in the past, whether bodily, mentally or digitally has been a topic of scientific interest in a variety of disciplines which currently becomes more relevant in the distinction of public and private life. Since the 1990s in Europe, presence experiments with different software and hardware applications have attempted to understand how virtual experiences become real experiences.

In this context of participation as migration trajectories, this paper explores the question of presence as how individuals negotiate their complex participation processes? In 2004, W. IJsselsteijn argues that presence research is a science of trade-offs. In a participatory context in which individuals' presences merge trade-offs are designed by the ones involved. According to IJsselsteijn (2004) trade-offs emerge from a collaborative learning process defined by an interaction between cultures and technologies available. Nevejan (2007) states that natural (physical) presence and mediated presence are the result of trade-offs that individual human beings make in order to survive but emphasises that they are the result of the clash between intention and realization in actors' experience.

The notion of migration trajectories raises new questions as to whether trade-offs emerge from voluntary or involuntary choices, and whether they are automated machine made or the result of techno-systems automated functions ascribed to networks by those of whom design and control them. In this sense the question is, did I have a choice now?

Focussing on trade offs inspires understanding of common human themes of engagement, trust, autonomy and attachment as they all shed light on the process of belonging. By exploring individuals' trade-offs this paper seeks to examine, as Couldry puts it, the materiality of representations (2012) through the relation between performances and significances of the individual spatially distributed.

Focusing on trade-offs brings about fundamental questions to be considered for further research, such as, how historical memories affect the negotiation of trade-offs as they summon up memories of being- and feeling-at-home'. Another fundamental question is raised about the role of 'the focus of attention' in the negotiation of trade-offs. Presence trade-offs in migration trajectories define participation practices and consequently they are channelling belonging in participatory contexts.

4. Individual Distributed World: Participation Practices

The concept of an individual's distributed world delineates how being here and being there merge into one experience for an individual in day-to-day participation practices.

Being-at-home in the world with self, family, colleagues and friends in communities that are local and global simultaneously, constructs individual experiences in these merging realities. Series of subsequent participation practices are considered as migration trajectories in which the feeling of being-at-home is negotiated (see paragraph 2) Reflecting on the relation between humans and mediated networks demands considering human presence in distributed systems whose bodies and minds, and external representations spread across physical and mediated migration trajectories (paragraph 3). This concept proposes that the merging of these migration trajectories (paragraph 2) into one experience constructs individual distributed worlds.

Individual distributed worlds emerge from being here and being there (migration trajectories) in continuous mediated networks connection. Merging realities are mostly the effects of social day-to-day participation practices. Social (participation) practices arise from complex negotiations between physical and mediated trajectories (trade-offs). Thus the distributed individual world is constructed through participation practices that constitute migration trajectories and are defined by trade-offs. Then, it is through the complexity of this process that the distributed individual asks her/himself, do I feel at home now?

Participation Practices

The concept of practice is widely invoked to identify how individuals follow rules, obey norms and articulate and grasp meaning. However, efforts to integrate discursive dimensions of practices with a conception of material or bodily practice are the most contested and conceptually difficult aspects of practice theory (Rouse, 2007).

This paper proposes to connect social practice theory with the idea of Couldry of media as practice. Couldry inspired by Wittgenstein describes four basic advantages to his approach. First, practice is concerned with regularity of action; second, practice is social and understands language as an action (by contrast with an older view of language as an expression of meanings that must somehow correspond to the world, in Wittgenstein terms: forms of life); third, practice points to things that individuals do because they relate to human needs (not fixed set of needs); fourth, practices linked to actions provide the basis for thinking normatively about media via the question of how should live with media (action). Couldry's media term includes all types of media forms. Couldry's research question is: "what are people doing that is related to media?" (Couldry, 2012:35). However he does not frame the question of media considered as objects, texts, apparatuses, or perception of production processes (Couldry, 2012). Connecting and reformulating 'media as practice' that constitute migration trajectories offers not a systematic explanation but does offer a general comparative description that helps to frame future empirical research.

In this paper the present discourse of the individual distributed world is being problematized by the continuous mobilization of body, mind and external representations of the individual through the course of ongoing number of migration trajectories and trade-offs. When focusing on the sense of participation merging realities, this paper attempts to reformulate Couldry's concept of 'media as practice' into the following questions: What types of participation practices do individuals do in mediated networks and which participation practices make individuals feel at home in the world?

5. Conclusion

This paper brings a new transdisciplinary perspective for the understanding of spatially distributed individual sense of participation by conceptually constructing the individual

distributed world through its migration trajectories and trade-offs negotiations and representations. Migration trajectories approach is constituted by a cumulative infinite number of individual movements (linear and non-linear) and trade-offs representations that are determined by the intersections of physical and mediated networks trajectories (physical, mental and digital). They represent the dislocation of individuals' actions in time and space according to individuals' needs. Needs may guide individuals to a regularity of practices, creating new ways of being- and feeling-at-home. Individuals' needs are either fixed nor for survival only, but they may emerge from the human basic need to experience the uncannines (mysteries of life) in search for new opportunities of self-realization with unknowable consequences. Migration trajectories may be partly normative and partly choice, although this can be questioned according to technical systems functionality. In migration trajectories the tension between voluntary (self-choice) and involuntary (automated or systems constraints) urges for a normative analysis to balance the way of being- and feeling-at-home in participatory contexts. Likewise historical memories test trade-off' negotiations as they summon up memories of being- and feeling-at-home. The question of belonging in migrations trajectories becomes essential for survival and wellbeing in terms of self-realization and participatory organization. Further empirical research is in progress to analyse the new emerging sense of participation.

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Author's biographies

Luis Bohorquez constructs conceptual frameworks to explore individuals' participation practices in complex day-to-day participatory systems. His multi-faceted education and work experience is grounded in six countries—in design, R&D, strategic development, multidisciplinary data visualization, sustainability, philosophy, STS, sociology and media studies. Bridging different domains and people is fundamental to his work. Besides his consultancy work his current academic research is as PhD Candidate in the participatory systems framework—Delft University of Technology—TUDelft.

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Frances Brazier, as a full professor in Engineering Systems Foundations, chairs the Systems Engineering Group at the Delft University of Technology, and the Participatory Systems Initiative. She holds a MSc in Mathematics and Computer Science and a doctorate in Cognitive Psychology. Frances is the chair of the Dutch Network of Women Professors. She co-founded NLnet (first Internet service provider in Europe) and was the Research Director for Stichting NLnet for nearly ten years.

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