

WP 7 Communication and Networking

D7.1 Operational Communication Model Established



Understanding Collaboration in the PARTY Project through a Correspondence Model

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1 Introduction

Contemporary design practice, situated within a global economy, is beginning to shift from project-specific collaboration to ever-more collaborative models that demands an increasingly strategic and interdisciplinary design approach. Design has expanded from graphic-, product-, and service design to activate or transform both people and ideas towards a predefined notion of social good (Norman and Pieter, 2015) whose achievement drives a joint response. Designers and design researchers are increasingly required to collaborate in interdisciplinary teams of various experts and stakeholders, to address multifaceted wicked problems (Sangiorgi 2009). Wicked problems (Buchanan, 1992) are inherently 'ill-formulated, where the information is confusing, where there are many clients and decision-makers with conflicting values and where the ramifications of the whole system are thoroughly confusing' (Churchman 1967:B142). Collaboration is essential to contemporary design (Larsson 2003), especially, with this new positioning of design as a mediator of social issues.

While there is a recognition that design research seeks to address socially complex and wicked problems through more collaborative strategies, such actions require an understanding of collaboration itself. Working in an interdisciplinary design research team, one might face many challenges resulted from differences in training, scientific culture and academic personalities. It is important to understand how collaboration works in socially-oriented design research and practice, and thus reflect upon how support activities and interventions stimulated the development of those practices is required to improve the future collaboration and research project management.

Otto and Smith (2013) develop the idea for such a hybrid activity as collaboration through a lens of design anthropology (which, they claim, largely results from more anthropologists working in the design realm). They argue that design's future-focus and designers' desire to find specific answers to specific questions are things which might inform such an approach for research and that research around change and, in particular, social change seems more viable through a way of designerly-thinking and making (p.3). Opportunities offered through design's engagement with people's everyday lives (via the things that designers make) and the ways that intervention and transformation might occur as a consequence of the collaborative creativity that design fosters are strengths to a design-led anthropology (ibid.). However, they also claim that design can (and, perhaps should) be informed by features of an anthropological approach: developing more awareness and willingness to engage with relevant theory, taking more consideration of cultural interpretation and making more use of the attendant opportunities for sense-making, integrating theoretical approaches more clearly and situating an informed undemanding via a richer investigation of the past (an anticipation of the future ahead of design's making of it). Here, they also identify potential opportunities for greater cultural sensitivity (and its attendant complexities) to be a distinct feature of a design-led anthropology, specifically with regards to notions of cultural value. Finding such a balance might, therefore, emerge from anthropology being inspired by design's focus on practice and design taking a more critical approach to itself (p.10). Put forward here is a model of design-led anthropology which is centred around anthropology's style of doing being changed by design's 'ways of thinking and planning' (p.11) and, most significant, is design's opportunities for an exploration of concepts, situations and experiences of 'relationality' (p.18) - a

complex variety of working with and for, and of 'relationships at different levels' with their attendant risks and benefits.

Suchman makes use of a geographical metaphor to describe such colonial activities, in particular with regards to the technological developments of the late 20th and early 21st centuries: 'Like other maps, depictions of the technoscape are not simply aids to navigation through an already-existing terrain, but propositions for a geography within which relevant subjects and objects might claim their place.' (p.2) Furthermore, design and innovation are themselves 'problematic objects' (p.3) - how are we to understand and recognise the 'limits of design' (ibid.) which has, until relatively recently, remained unchecked? Post-colonial forms of future-making (such as design thinking and participatory design) have problems in fully recognising their own limitations within their respective 'circulatory systems' - of the 'limits and exclusions of their own knowledge practices' (p.2) - that there is a critical project to be undertaken with the aim of affecting uncertainty on the assumptions of fixity and permanence of their respective knowledge centres. For Suchman, design innovation actively (and endlessly) seeks a frontier space and outer edge, at which it suggests progress can only occur (and must be placed) at the behest of those with the ability to make such change occur - innovation is seen, therefore, as an unquestionably positive and inescapable fact. Formalisations of the practice of study and research into design jettisoned any idea of critical approaches in favour of a development of demonstrable models of process (p.6) which favours a systems-based approach and a particular conceptualisation of efficiency for gauging effectiveness. As a means of countering such approaches, therefore, Suchman (like Margolin) argues for a recognition that design is a situated and social practice and for the question: how does the context through which design emerges influence it?

This deliverable reports on the major findings of the researcher interviews undertaken as part of Workpackage 7 of the 'Participatory Tools for Human Development with the Youth' (PARTY) project. The purpose of this study is to develop a model to understand how collaborations are developed in a research and innovation staff exchange project within the collaborative design research context. Drawing on a concept of 'correspondence' (Gatt and Ingold, 2013) and levels of interdisciplinary research practices (Siedlok, et al., 2015), a model of correspondence is established to identify forms that correspondence has taken within the PARTY project and reflects upon their value and importance. The model of correspondence allows for an analysis of the experiences of PARTY researchers to determine scenarios that frame the project's significant forms and moments of connecting, entanglement and exchange through engaging in participatory design research activities. The interview data was collected from a total number of 41 PARTY project participants through the use of an "ego networks" method. The network and thematic analysis were conducted to interpret and make sense of the data. The report presents the findings of the analysis and discusses the development of practices and their relation to the emergence of collaborative communities of practitioners through three scenarios 'individual', 'activity' and 'institution', and reveals through those how correspondence was experienced and related in the case of PARTY project.

1.1 The PARTY Project

The ‘Participatory Tools for Human Development with the Youth’ (PARTY) is a four-year research and innovation staff exchange project funded by Horizon 2020 MSCA-RISE-2014 scheme between Feb 2015 and Jan 2019. The objective of this project is to contribute to youth unemployment in developing countries through the development of participatory service design tools for human development and transformational change. The project aimed at supporting staff exchange and networking based around globally-distributed knowledge and expertise and participants’ lived experience in order to address the challenges faced by the San youth in Namibia and South Africa. The project is coordinated by the University of Lapland (ULAP), Finland and the other academic partners include University of Leeds (UNIVLeeds), UK, Namibia University of Science and Technology (NUST), Namibia and Cape Peninsula University of Technology (CPUT), South Africa. The non-academic partners include PACO Design Collaborative (PACO), Italy and the South African San Institute (SASI), South Africa. As such, the PARTY is an multicultural, multidisciplinary and multisectorial project. Focusing on developmental cooperation through staff exchange, the project facilitates research and innovation, and the exchange of knowledge between researchers, the target group and local actors in Southern Africa.

2 From Practice to Collaborative Community

In this section, we firstly describe the notions of ‘Communities of Practice’ (CoP) (Lave and Wenger, 1991) and ‘Collectivity of Practice’ (CIP) (Lindkvist, 2005) and the use of the two notions to conceptualise how sub-units or groups within organizations and temporary organizations operate. We then describe a two-fold typology of group epistemologies – a ‘knowledge community’ and a ‘knowledge collectivity’ (ibid.) originating from the literature of CoP and CIP respectively. By applying the community and collectivity notions as analytical tools, we characterise the collaborative practices that are related to the PARTY project as CoPs. Such practices form the basis of the development a three-level (‘practices of enquiry’, ‘practices of engagement’ and ‘practices of enactment’) of collaboration model inspired from the CoP literature. The model is presented in Section 4.

2.1 Communities of Practice and Collectivities of Practices

The notion of ‘Communities of Practice’ (CoP) originated with Lave and Wenger (1991) in their contribution to the learning theory. The CoP has been coined to refer to the community that acts as a living curriculum for the apprentice (Wenger, 1998). The CoP is defined as ‘groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis’ (Wenger et al. 2002, p.4). The CoP has a dual character of a social structure and a cognitive structure (Wenger, 1998). According to Wenger, a CoP sustains ‘dense relations of mutuality’ (1998:74), brings about a negotiated, joint enterprise ‘defined by the participants in the very process’ (1998:77) and a shared repertoire including ‘routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions, or concepts...’ (1998:83). Lindkvist (2005:1194) characterises ‘a CoP as a “tightly knit”, “affect-laden” social structure with ‘dense’ relationships of mutuality’ and shared understandings.

The notion of the CoP does not limit communities to groups within firms or organizations (Agrifoglio, 2015). Instead, the community becomes a tool for knowledge production. Through engineering and cultivating CoPs, new groupings of people come to work together to create, expand and exchange knowledge (Wenger et al. 2002), ignoring the formal boundaries of the organisation. CoPs have been suggested as alternative approaches to traditional 'knowledge management' through formal, codified systems, by illuminating 'how "tacit knowledge" may be dealt with' (Lindkvist, 2005, p1190).

To date, studies that have addressed inter-community collaboration either focused on the role of boundary objects (Lee, 2007; Nicolini et al., 2012 for discussion on the use of boundary, epistemic and activity objects; Dalsgaard et al., 2014 for discussion on emergent boundary objects in collaborative design research projects) or focused on the interactions between the group members that are transient and purely project related (Blackler and Regan, Ferlie et al., 2005; Lindkvist, 2005). Lindkvist argues that in swift problem-solving, 'there is a greater need for abstract and decontextualised knowledge' (2005:1204) to complete 'a pre-specific task within a tightly set deadline and budget' (2005:1190). In such transient groups, members embrace a collective goal, develop goal-directed interaction that the collective competence needed and generate environment that individual knowledge bases can be well connected. These group level constructs connect to distributed knowledge which designated 'collectivities of practices' (CIP) (Lindkvist, 2005).

2.2 Knowledge Communities and Knowledge Collectives

Originating from the literature of CoP and CIP, two different and complementary notions of 'knowledge communities' and 'knowledge collectives' have been suggested as a two-fold typology of knowledge work in group in Table 1. Lindkvist (2005) categorises a set of knowledge-related dimensions ((i) the knowledge base, (ii) the knowledgeable members, (iii) type of knowledge process, and (iv) epistemological maxim) and shows major differences between the two knowledge organisations. In CIP and 'knowledge collectives' contexts, task forces interact according to a logic that is different from CoPs. They might have less strong ties, only limitedly shared cognition (Lindkvist, 2005) and engage in swift socialisation based on 'swift trust' (Meyerson et al., 1996). During the trial-and-error-like processes, group members operate on 'distributed' knowledge and the success of collective action 'relies on the "well-connectedness" of knowledge bases' (Lindkvist, 2005:1204). By contrast, in CoP, 'individuals learn unintentionally while participating in activity' through 'situated learning' where they could 'see and sense how the activities of the community should be carried out' (Lindkvist, 2005:1204). Therefore, vital knowledge resides in practice, the narratives, or the culture of the community as 'decentred' knowledge (Lindkvist, 2005). Decentralization is achieved by establishing local knowledge communities where CoPs are firstly characterised by 'strong' social bonds (Wenger, 2000), and secondly by a high degree of shared cognitions (Lindkvist, 2005).

Table I. Comparison between the knowledge community and the knowledge collectivity: some important dimensions on which they differ (Lindkvist, 2005)

	<i>The knowledge community</i>	<i>The knowledge collectivity</i>
1. General type of knowledge base	Decentred knowledge	Distributed knowledge
Type of memory	Blackboard memory	Network memory
Main repository	Knowledge-as-practice Communal activity and narratives	Individual knowledge and competences
Integration principle	Knowledge base similarity	Well-connectedness of knowledge bases
2. The individual members		
Way of learning	Socialization	Problem solving
Operating basis	Dispositional knowledge	Articulate knowledge
Type of knowledge worker	Enculturated	Free agent (within limits set)
3. Type of knowledge development process	Paradigm-driven/normal-science process	Goal-directed trial-and-error/market-like process
4. Epistemological maxim	'We know more than we can tell'	'We tell more than we can know'

2.3 Communities of Practice, How Design Interacts...

The CoP concept provides a useful explanatory framework that allows participants to make sense of their collective contexts and the role of resources in merging structures and supporting the process of change (Lave and Wenger, 1991; Brown and Duguid, 1991; Wenger, 1998). The term community is associated with 'the hope and the wish of reviving once more the closer, warmer, more harmonious type of bonds between people vaguely attributed to past ages' (Elias, 1974: xiii). In the idea of a CoP, communities are viewed to provide resources for organisations that support '[f]oundings and failures of organisational forms' (Freeman and Audia, 2006, p. 145); and practices are conceived of as the 'reproduction of organizational forms and sense-making within them', as remarked by Siedlok, et al. (2015:96). Siedlok, et al. (2015) suggest that the development of interdisciplinary practices and the emergence of community are achieved through three levels of practising, including 'practicing individually: practices of enquiry', 'practicing together: practices of engagement' and 'practices of community: practices of enactment':

- 'Practicing individually: practices of enquiry' refers to the exploratory phase of engagement with IDR during which might involve 'risk taking', 'exploring', 'seeking opportunities', 'searching for connections' and as 'unpacking the problem and upframing' (Siedlok, et al., 2015). In this stage, individuals try to find out whether, and how, they would wish to proceed and experiment by

adapting their ‘regular’ practices to fit new contexts through a form of legitimate peripheral participation (Lave and Wenger, 1991);

- ‘Practicing together: practices of engagement’ is ‘the phase in which the participants develop rapport and deploy practices that enable them to begin to resemble’ (Siedlok, et al., 2015:101) and co-create meaning as they engaged in collaboration and develop abilities to achieve the substantive purpose of the collaborative group. The group might go through ‘engaging’, ‘investigating fit’, ‘building fit’, ‘accommodating’, ‘providing focus’ and ‘project tasking’ to negotiate norms and expectations that are engraved in practices developed at an emerging proto-community (Siedlok, et al., 2015);
- ‘Practices of community: practices of enactment’ relates to the phase that a defined social ‘centre’ - a community context is established for the meaningfulness of collaborative practices. This level of practising might involve ‘maintaining procedural justice’, ‘nurturing’, ‘involving others’ and ‘brokering connections’(ibid.). Significant efforts being made to ensure the sustainability of practices and community, and in this context an important issues were the building of trust and some stable social structure that is necessary for the maintenance and development of practices and fruitful collaborations, making substantive rather than superficial connections for future collaborative engagements.

The development of interdisciplinary research (IDR) ‘from scratch’ involves practicing at two levels: ‘practicing individually’ and ‘practicing together’. For such a socially and cognitively dense group to emerge, the working environment that enables the high levels of trust, shared behavioural norms, and mutual respect and reciprocity between the community members to develop would be beneficial (Agrifoglio, 2015).

IDR PRACTICES	Practices of enquiry: <i>practicing individually</i>	Practices of engagement: <i>practicing together</i>	Practices of enactment: <i>practices of community</i>
	Risk taking Exploring Seeking opportunities Searching for connections Unpacking the problem & upframing	Engaging Investigating fit Building fit Accommodating Providing focus Project tasking	Maintaining procedural justice Nurturing Involving others Brokering connections

Figure 1. Practices at the interface of interacting communities: emergence, levels of practicing (adapted from Siedlok, et al., 2015)

We argue that the CoP framework also provide a useful lens for understanding the types of interactions and qualities or characteristics of collaborative practices that emerged and developed by a level of practising or a degree of investment in a design research project such as PARTY.

3. Correspondence, Where Design Meets...

‘Interaction is between; correspondence in-between.’

(Ingold 2015:154)

The concept of correspondence has been developed by anthropologist Tim Ingold as a means to reframe ideas of engagement and describe a variety of interactions (most often between people and people and, in some cases, between people and other things). Such an idea presents a useful lens through which the types of activities and interactions that are part of a project such as PARTY can be discussed. For Ingold, correspondence is inherently social and grounded in socialisation, and is determined by the entanglements and co-existence of partners within any scenario or process (2015:11). At the core of Ingold’s concept of correspondence is an idea of *being-with* (others) and of a weaving together of the partners or participants who work to constitute any such situation and, significantly, it is a process rather than an end in itself (2017:13). Further, all relationships which are created or which emerge through/with/of correspondence are defined by *their* being in process rather than their arriving at a stable or concrete end - they are composed additively (by sets of discrete elements working together), and, as he goes on to describe the concept relationally, ‘...interaction is about othering, correspondence is about togetherness’ (Ingold 2017:41). Within the context of creativity - and, in particular, design - correspondence often acts as a means of generating possibilities and can be used speculatively in ways that create *responses-in-process* as opposed to firm answers within any problem situation (2017:88).

Fundamental to Ingold’s notion of correspondence, therefore, is an idea of openness as something critical to any type of pursuit (2017:9), where a life lived (or an experience shared) with others depends upon an (active) engagement with all others. Rather than being linear or uni-directional, such correspondence-relationships are determined by an idea of a *meshwork* of movement: of back-and-forth and of a interconnectedness or multidimensional *joining-together* (2017:118,155). Such a joining, Ingold argues, might often not result in a form of correspondence that’s ordered or structured but, instead, one that calls forward a degree of harmony between participants - an attunement and receptivity shaped in the *becoming-with* that seems so critical to his concept (2007:199).

4. Gifts through correspondence, a model...

‘The exchange of gifts or words in conversation sets up a correspondence in which each line is continually answerable to the others. To correspond with the world, in short, is not to describe it or represent it, but to answer to it.’

(Gatt and Ingold, 2013, p. 144)

Introducing kinship

As we have seen, relations (and relationships) are at the heart of any form of correspondence and Ingold goes on to describe them specifically as a form of *kinship* - with its implied sense of a close connection that is determined by an act or situation of *sharing* (as opposed to an idea of affinity which

can have implications of a slightly cooler relationship). Within this concept of kinship, therefore, is an idea of people who ‘...attend to one another, in the sense of abiding with each other, caring for them and doing their bidding’, the description of a process of ‘making-in-growing of persons’ (2015:154).

‘... an idea of correspondence, which can be described as an interweaving of experience or the metaphorical line along which a gift might move: an unfolding path or network of connections along and through which a researcher (and their knowledge, skills and experiences) might move or be carried. More than an idea of or means to discuss interactions between persons, this idea of correspondence is centred around a practice of gift-giving which is open, vital and situated in both time and space.’

(Wilson, Kuure and Chivuno-Kuria 2019)

A model of correspondence and its characteristics can be developed when the modes of PARTY project’s operation are considered. According to the POM model (defined and discussed in Wilson, Kuure and Chivuno-Kuria (2019)), PARTY activities can be mapped onto three scenarios (Institution, Individual and Activity) as a means to usefully categorise the different contexts that complexity might be experienced in. The concept of a ‘gift’ (that which is exchanged by means of correspondence) allows us to determine the dimensions and qualities of any engagement and links to the mode of complex collaborations identified by the POM model. Where a *gift* is exchanged across and through the activities of correspondence, it is further possible to consider the characteristics of such a transaction as a form of achieving a level or quality of kinship (where kinship is the ultimate result of and for correspondence, an experience shaped or moulded by participation in correspondence). Each of the relations outlined below are moulded by their correspondences, and their qualities or characteristics are determined in part by a level or degree of investment that takes place between participants.

As shown in Figure 3, a framework or model of correspondences that looks to define or determine its practice at each level of complexity. An outline of those PARTY activities that constitute a gift, and where those gifts work to build a distinct quality of kinship that can then be identified and discussed.

i. (Correspondences at the level of) Individual

Type of engagement - defined by a particular quality of kinship; between people and people. Those in correspondence - people either individually or as members of a team - being embodied as one of and among others in the community of PARTY participants which can achieve *rapport*. A practice (characterised by methods or activities) of enquiry (of discovery of exploration (through others)), where these practices are socially performed and defined by the individual's own experiences or interests. Their characteristics are: embodied, experiential, practiced, exploratory.

ii. (Correspondences at the level of) Activity

A practice (characterised by methods or activities) of engagement (of being-with, determined by (pre-established) objects of knowledge (the EU, the project proposal, the rules of a mobility) and whose aim is to establish and fix correspondences between people and things (where those things are, themselves, objects or outcomes of an applied knowledge) - and where the activities are a practice of creative-

making or of production and of an investment between those in correspondence to achieve *marriage*. Those in correspondence: individuals or groups / teams (often defined by their mobility-membership) and things (objects of knowledge). Activities that constitute a gift, that work to build a quality of kinship: workshop goals, methods book, mobility - all defined by their texts.

iii. (Correspondences at the level of) Institution

A practice (characterised by methods or activities) of enactment which is intra-institutional (between things and things) and which also, most importantly, faces outwards in instances of public engagement and external communication (to readers or viewers), and where such a public enactment of correspondence implies a sense of esteem that might be achieved by an investment in quality (that can be perceived by those publics) in that (gift) being exchanged and where such esteem is comparable to a notional *masterpiece*. Those in correspondence: those things that are consequential of other activities / correspondences - the outcomes of activities made by people and which are then enacted institutionally (on behalf or by institutions) Activities that constitute a gift, that work to build a quality of kinship: exhibition, PAD conference (difference between academic and artistic output).

Between members of a group or community (ibid.) - relevant to the relationship between PARTY is an instance of kinship correspondence. For Ingold, processes of production that take place within conditions of correspondence can (and should) also include those non-humans participants that are active and engaged in such making. Design is situated here: 'For as much as kinship is about attending to persons, economy is about attending to active materials. In this, humans are not just the producers of objects to consume. They too are transformed in the process; what they achieve is achieved in them.' (2015:155)

Correspondence applies both to the world as we experience it and that which we know is external to ourselves - and which is determined by our experiences being shaped by their being embodied. That these things outside yourself are not closed or closed-off (by their virtue of being fixed) but instead exist in states of becoming-with (us) and experienced through and with us. These relationships are determined by correspondence and our associations from and with them exist in flow with an exchange taking place as a consequence (of any correspondence). So each participant in the correspondence has sets of 'qualities' that form the basis of any act of correspondence. Gatt and Ingold give us a way to consider the relations that were fostered by PARTY (or any such project) and the means to reflect upon the characteristics of such an exchange (or series of exchanges).

The practice of gift-giving in the PARTY project is impossible to disconnect our lived paths (Wilson et al., 2019). In activities and actions at the three levels (individual, activity, institution), the correspondence is enacted and experienced by the researchers. It echoes individual researcher's subject-specific knowledge, skills and past experiences in relation to others on the mobility and the project objectives. These correspondence moments connect our own lived realities. At the same time, improvisation developed by creative participants help to promote a dynamic exchange of gifts, knowledge, cultural forms, and to encourage new IDR community established cross national, cultural, sectorial and artistic boundaries. Where a *gift* is exchanged across and through the activities of correspondence, they could

be conceived of as 'knots' – 'convoluted lines that link other lines – bringing together different strands of experiences and perspective' (Akama and Prendiville, 2013,:37), resulting in a mesh or network of lines along which 'gifts' are exchanged as the basis of each level of correspondences. In Figure 2 (a), these knots are 'formed of the very lines along which life is lived ... they trail beyond it' (Ingold 2007: 100). The knot is different from the dot that 'hops from one predetermined location' (Ingold 2007: 101) to the next.

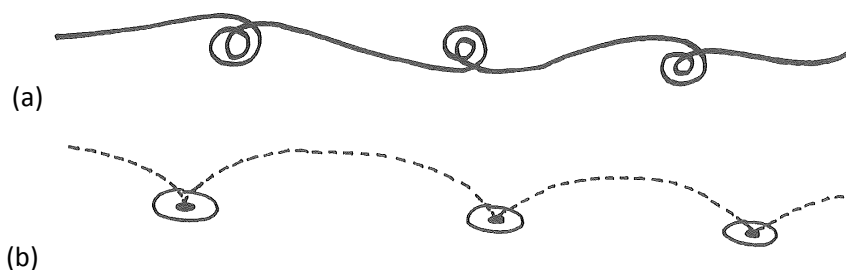


Figure 2. The knot (a) and the dot (b) represent two kinds of life-lines of wayfaring. Drawn by Ingold (2007, p. 101)

In this way, the practice of gift-giving in the PARTY project and correspondence moments are woven into the meshwork – the web of life and living. Figure 3 show a Correspondence model. The flowing lines proceed through a series of knots which are described as 'a succession of places' - where activities that constitute a gift take place. Those gifts work to build a distinct quality of kinship - rapport, marriage masterpiece at the levels of correspondences - individual, activity and institution.

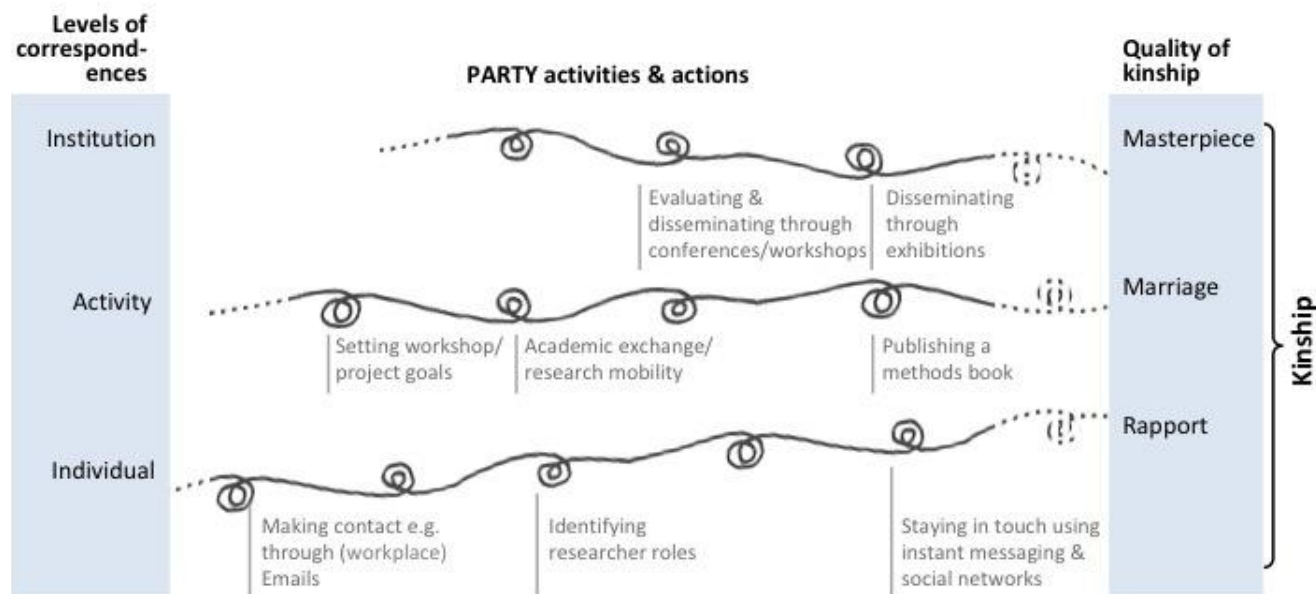


Figure 3. Correspondence model, correspondences at the levels (individual, activity and institution), the quality of kinship and activities and actions in the PARTY project.

5. Research Methods

5.1 Participants

Between April 2015 and November 2018, 93 exchange staff have participated in the PARTY project mobilities in six different places, including Kimberley and Grabouw/Cape Town (South Africa), Windhoek (Namibia), Rovaniemi (Finland), Leeds (UK) and Milan (Italy). To understand the collaboration between PARTY project partners, group and individual interviews have been conducted with the PARTY participants between March 2018 and November 2018 in five sites, Grabouw and Cape Town (South Africa), Windhoek (Namibia), Rovaniemi (Finland) and Leeds (UK). The organizations or partners in the PARTY project included established and emerging academic researchers, non-academics and PhD students from the University of Lapland (ULap) in Finland, Namibia University of Science and Technology (NUST), University of Leeds (UoL), United Kingdom, Cape Peninsula University of Technology in (CPUT), South Africa SAN Institute (SASI) in South Africa and PACO in Italy. The data was collected from a total number of 41 participants through the use of “ego networks”. Appendix 1 provides a full list of the coding and description for the individual participants used involved in the interviews. Participants were instructed to form an ego network by placing around their own picture, the pictures of the people they worked with closely on the PARTY project. Hence, the closer the picture the stronger the connection and the farther the pictures are placed, the less connection. In addition, to gain more in-depth insights about the ego networks developed by participants, semi-structured interviews with open-ended questions were led by the administrative managers with the participants. The open-ended questions were asked from the participants about their past and current experiences working on research projects with the various partners.

5.2 Data collection methods

A key aim of this workshop is to generate some practical lessons for how the process of collaboration might be improved in the context of a research project. These, it is hoped, will be useful not only for the area of design research but also for a wide range of audiences academics and non-academics involved in funding, managing, and conducting interdisciplinary research projects.

In the exploratory social network analysis, the respondents were asked to participate in the semi-structured interviews. Towards the end of the interview, the respondents were asked to sort a selection of cards containing the name, institution and (where available) a photo of all other PARTY participants. Specifically, they created an ‘ego network’ in which they placed themselves (ego) at the centre and arranged other cards (alters) around them according to how closely they see themselves as related. They described their relationship to each other PARTY partners as they go through this process and are also asked about their rationale for sorting the cards in a particular way. Once completed, a photograph was taken of the sorted cards. Voice recordings of the semi-structured interview was taken in pairs and photograph of the ‘ego network’ was taken at the end of analysis. It is aimed to gather insights from the PARTY participants to understand and visualise the collaboration and relationship between the

individual researchers and institutions engaged in the interdisciplinary socially-oriented design research and practice.

5.3 Data analysis

5.3.1 Network Analysis

The methodology used for developing the collaborative networks was based on the publication of Dershem et al. (2011) on how to map and measure connections between organizations. A network is a form of connection or relationship between two entities or nodes. This implies that the basis of a network is that of a one-way or two-way exchange. Networks can be of a digital or neural or social nature. However, a social network is the focus of this deliverable. A social network is a relational connection between two or more individuals, or between groups, and or between organizations. A relational connection can be described as information exchange, provision of services, friendship, financial services etc. Therefore, a social network depicts the map(s) of how different people, or groups or organizations connect with each other based on a particular types of relationships. For example, Facebook is a social media platform that connects people from all over the world as friends or link up participants of an event in a specific area.

To understand a social network and the roles of the people therein, an analysis of the social network is conducted. The network analysis involves unpacking what constitutes a relationship or connection between groups of people or organisations. Also, the network analysis assists to understand how individuals interact at a network level in terms of characteristics such as network density or degree of interactions within the network. From an individual level perspective, a network analysis helps to determine the clusters within a network, the bonding member, the most influential members and the disconnected members in the network. At the conclusion of the analysis, the characteristics of the social networks are determined at the network and individual levels; this could help in decision-making about improving or weaving the network. Weaving the network simply refers to increasing the network density. Ultimately, the network density determines the efficiency and effectiveness of the relationships or exchanges amongst the groups of people or organisation in the social network. Hence, it is noteworthy to mention that the key reason for a network analysis is to improve the current status of the social network or identify innovative means for new collaborations. It is arguable that the more connected people are, the more resilient and productive the network could become over time.

5.3.2 Thematic analysis

The interviews were recorded. The audio recordings were listened to repeatedly and transcribed in full. Thematic analysis, a method for identifying, analysing and reporting patterns within data (Braun and Clarke, 2006), was used to identify and extract individual behaviours and collective practices from the transcripts using coding and clustering (Miles and Huberman, 1994). Two researchers reviewed the original notes made during the interviews and the transcripts generated from the audio recordings using the predesigned guides. Following the identification of codes and themes in

the data, the researchers brought both sets of data together to compare and validate the emergent themes.

In this deliverable, we describe how people have experienced collaboration while participating in the PARTY project and their thoughts on future collaborations, using the social network analysis. The aim of the deliverable was to explore and understand how people networked and communication channels were established during collaboration in the PARTY project.

6. Network Analysis Results

Based on the interviews and ego networks developed by the participants, themes that define the types of connections namely activities, administration and relationship were identified. These themes were used to define the tie data between participants (see in Appendix 2). Appendix 2 shows how each of the participant is connected to other participants. Once a list of all participants was compiled from the ego network and interviews, a data file was generated. The data file consists of nodes (in this context, participants) and tie/connection Properties. The data file is basically a notepad file, which is uploaded into a software called NetDraw program. The NetDraw is a software program that helps to visually generate a network of connections using binary values of 1 and 0. For instance, in the data file, a connection between a participant and several other participants is each assigned a value of 1 while no connection is assigned a value of 0. Therefore, a participant that has a connection with another participant through research activities and some sort of administration would have a value of 1 for each connection, while a no relationship connection would be assigned 0. The node properties are simply the characteristics of the participants that were involved in mobilities exchange. The participants mostly included academic researchers, non academics and doctoral students.

To comply with anonymity, in the interview transcripts, the participants are represented by Rn, where “R” stands for respondent and “n” stands for number. Hence, the participants were represented as R1, R2, R3, R4, and R5.....Rn even though actual names and pictures were used in the construction of the ego networks. At the network analysis level, the network density and inclusiveness are calculated from the figures below with a brief interpretation, which was consolidated by the interview transcripts.

The figure below shows the overall network generated from NEtDraw indicating all the three types of connection types as indicated in the passages above and appendix 2. The figure shows a densely connected network of members on the PARTY project. The figure below is further divided into the other figures that show the three connection types which include: activities, administration and relationship

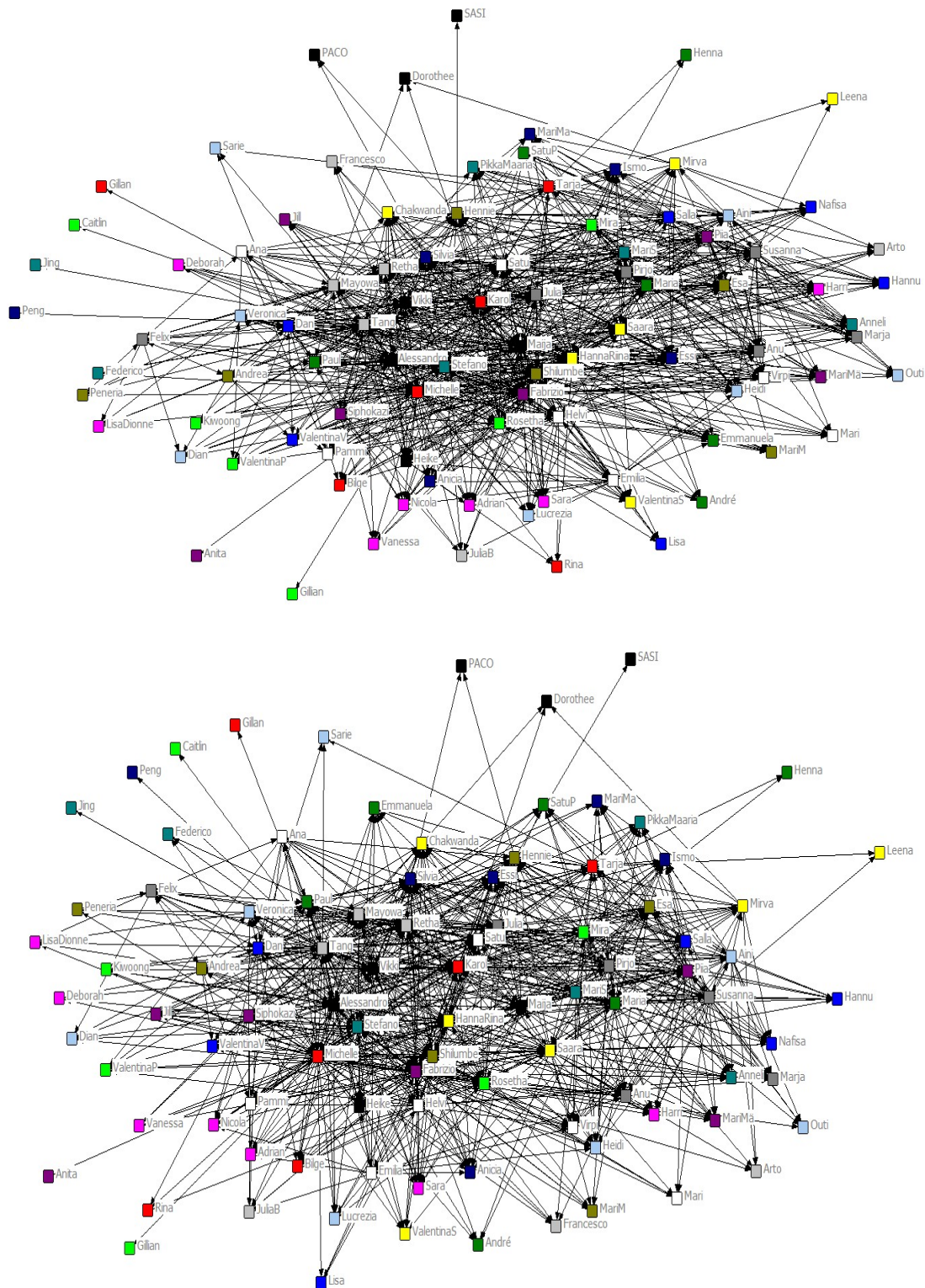


Figure 3 shows the network generated from NEDraw on Activities connection type.

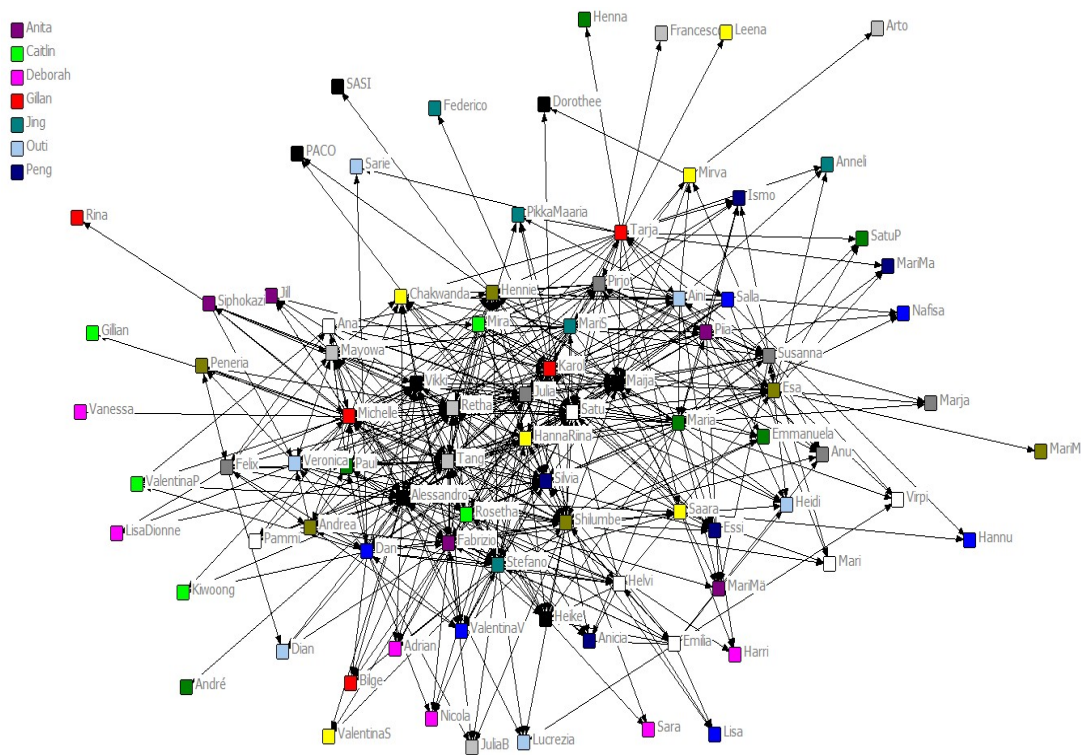
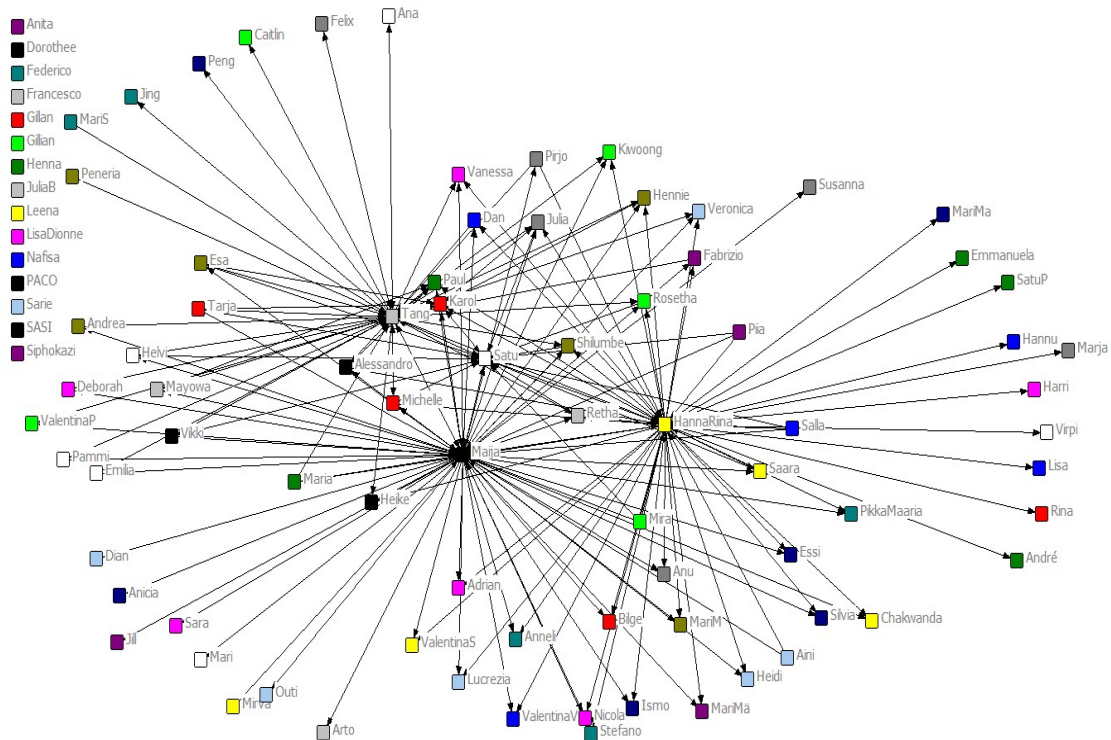


Table 2 NEtDraw analysis

Quantitative Properties of collaborations	Activities	Administration	Relationships
Total # of ties possible (N X N-1) ~ (41x40= 1640)	1640	1640	1640
Actual Number of Ties	1018	211	612
Network Density	62%	13%	37%
Inclusiveness	100%	71%	85%

$D = AT / (N * N-1)$; D is for Network Density, AT= actual Number of Ties, N=Number of network members. Network density shows how sparsely or densely knitted the social network is together. Hence, if each member of the network was connected to every other member, there would be 1640 ties possible. With regards to the Network density on activities shows that the network was relatively densely connected while network densities on administration and relationship were sparsely connected as they were less than 50% respectively. The response from the interviews could further proffer reasons for these figures.

Inclusiveness = N_c / NT , where N_c = number of connected participants; NT = Total number of participants. Inclusiveness is the ratio of involvement in terms of number of connected participants against the total number of participants. The percentage inclusiveness are relatively high for all 3 types of connections as indicated in the table. This implies that the PARTY members were mostly involved in the activities, given the 100% result while the administration yielded 71% especially because there were institutional representatives that dealt with the project administration in addition to participants that coordinated deliverables from each institution. Lastly the 85% inclusiveness indicated from personal relationships showed that bonds were developed over time formed and the implications on the PARTY project were consequently revealed in the interview responses.

For the second sets of quantitative data, the following properties or characteristics were identified. At an individual level, the characteristics of members of the network is generated from the NetDraw program. Individual network member characteristics include a) non-involved members and centrality measures: b) prominent members, c) influential members, and d) bonders.

- a. Non-involved members are those participants that did not mention any other participants and neither are they mentioned by other participants in each of the connection type. The Non-involved

members are identified as the participants placed in the top left column of the social network images.

- b. Prominent members are participants who are mostly mentioned by other participants named (or network in-degree). These prominent members are also known to have a high prestige since many other participants claim to have connections with the participants. This indicates the importance of such participant in the social network
- c. Influential members are participants with multiple interactions with other participants (or network out-degree). Participants who have a high out-degree with several other participants may imply that they may be instrumental in projecting their views on other participants in the social network.
- d. Bonding members are participants in the social network that would cause a fragmentation within a cluster or between several clusters, if removed. This implies that most of the connections in the social network passes through them. A cluster is a tightly knitted group of participants who share close proximity as indicated in the generated social network images.

7. Thematic Analysis Results

Workshop activities, which makes individuals know each other directly, exchange ideas casually, overcome difficulties together, and implement the role of the project smoothly, are the core factor to effective collaboration. Based on the qualitative analysis of the interview of the participants, there are two issues crucial to collaboration, the one is boundary negotiating artifact, which means ‘ auxiliary artifacts, in the sense that they mediate work on a specific object’ (Dalsgaard et al., 2014:747), including “new participatory methods” and “challenges or difficulties”; the other is Epistemic Objects - objects of knowledge (Nicolini et al., 2012) - which relates to the activities for the knowledge exchange and production, including “mobility and workshop goals” and “determining the academic rationale for the planned activity”.

7.1 Methods - boundary negotiating artifacts emerged in activities

7.1.1 Adapted or new participatory service design methods

As to adaptation and development of new participatory methods, there are three actions discussed by the participants that helped to the emergence of good collaboration. The actions include “building connection”, “applying communication skills” and “having a mutual understanding of problems”, as seen in Table 3.

Table 3 Adapted or new participatory service design methods

Purposes of actions/activities	Description
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Building connection	Having necessary ways like mobility or meeting to get partners together, to know each other on the disciplinary, cultural background, ethic, research interest, et al; moreover, use some social medial like Skype for communication, which will help to build good connection or friendship in the future project process.
Applying communication skills	Needing some skills or tips when running workshop, like making jokes and laugh, providing some tips and ideas to explain abstract concept.
Having a mutual understanding	Share methodologies, offer different opinions when facing challenges; mutual understand and integration of partners on culture, ethic and outcomes.

Building connection

There are two main ways for building connection: one is 'face to face' interaction including undertaking mobility , have meetings or organising workshops together. The "face to face" interaction is helpful for participants who have not met before to know each other directly and offers most effective form of communication in the PARTY project. Participants described that they learned about the various aspects of the each other in the 'face to face' communication', from personal disciplinary and research interests to cultural background. Participants can read the body language and facial expressions. it gives the live feedback and adds up value, builds good working relationships, and creates lesser misunderstandings and a real bond, which are not easily achieved by other forms of communications.

R15: we think that when we don't meet the collaboration disappears sometimes; and it starts to grow when we meet in the mobility and we personally speak each other. So for me it works really well when we were in mobility together.

R14: Everybody was saying it's about mobility, it's about creating the network and so on. it might happen that in a moment you are to cover a mobility, which is a concept that probably all institutions, academic and non-academic, have to face, we have to cover this mobility, which was not strictly related to the project but it was for the need of covering a mobility.

R10: I think that is quite clear that the difficult, and the suggestion that I can give you on the project, is that is very important to align in matching the different needs, the personal needs, about not just people but the needs of the organisation, with the project aims. And I think for the future that kind of pre-meeting session, it's total

need, as a big need, and there must be everything said honestly and all the cards on the table.

R03: We worked on the workshop where we did the research together also for the reading culture and the difficulty that we are facing here in Namibia and then after that we end up writing a paper and we published a paper [called SEM 02:21] and we went to Denmark together to present the paper. It was really interesting and we really worked together. Also had workshops here in Namibia, participatory design workshops with Esi and some people from PACO, and we had, I think, more than five or six workshops in schools, yeah.

R02: And I think what's important is that we have like an ethical workshop before the people travel to different communities.

R07: I was expecting bigger differences, but during the workshop, like people that I was working with there, we had rather good connection, we were making jokes and laughing at many of the things that either I said in a funny way or they said in a funny way.

The other aspect to build connection of collaboration is the usage of internet social media tools like Skype, which promotes project consistency and future cooperation. Nevertheless, some argue that social media sometimes makes issues complicated if used too frequently.

R04: Maybe depending on cost, if everyone is not able to come together we can use social media and can either do Skype or group hangouts whereby we just discuss what is the main aim.

R08: But at least I think we tried to talk a lot and discuss a lot and have sort of open channels of communication with all the partners and meet and Skype and do things that would...to overcome these possible conflicts.

R07: In South Africa, the people that I was working with are Hennie Swart and Julia Dammann. With both of them and with Maij we had a Skype conversation beforehand, so that's my first contact with them, and I was sending some of my research material that I had produced already...

R11: And I think as the main issue is how to improve the communication is definitely the theme on here. So, it's been noticed already, like the Skypes, or base camps, or that kind of things, that will...improve, it makes the communication a bit more complicated if you have a group discussion, like once a month, it will really work.

Applying communication Skills

It makes participants ease and open-minded by taking use of some skills or tips, like jokes and laugh, and what is more, to explain abstract concept in approachable words, could promote communication.

R07: We were making jokes and laughing at many of the things that either I said in a funny way or they said in a funny way. The good thing was that English wasn't anybody's mother tongue, so amusing moments just happen... We tried to bring it to the individuals and communities level, so not talk about all the abstract things but actually what it does mean in people's everyday life, so then it's usually easier to encounter than you're able to generate conversation. And then again kind of knowledge and information that I need for my own research and usually I'm able to also provide some tips and ideas about what you should take into consideration.

Having a mutual understanding

As international cooperated project like PARTY, whose partners come from different country, different institution, different discipline, and different culture background, it is crucial for the participants to understand each other when carrying on the projects, which will take advantage to face challenges and make a common sense on culture and outcomes.

R02: Collaboration means when you have different people from different disciplines coming together and working together, sharing their experiences, research experiences, their methodologies, they can share maybe what worked in their previous projects or what didn't work, all that can be used to contribute to research and we can learn from that.

R04: From my take it would be basically bringing together academics and those from different roles to possibly contribute to a certain activity or project and then in order to offer that different opinions as they differ and come from different backgrounds and contribute to the success of that activity or project.

R02: I don't know about non-academic to non-academic, so I can't comment on that. But I think also just different understanding of what is important.

R03: So I'm not sure if my response is already addressed or not, but I'm thinking with maybe to improve or to overcome some of these challenges maybe at the beginning we have a group meeting or some kind of like workshop to just kind of address some of these issues at the beginning and share different ethics from different culture, what is allowed and so forth.

R11: I think that there must be this common understanding from both sides that we understand the non-academics, and they try to understand academics; and obviously we are from different countries, so we need to kind of...it is a challenge because there are different cultures, we have different approaches, different working style; and I don't think that we need to [inaudible 0:37:08] them those differences, but we need to kind of understand and be more flexible on both, that if we know that you're working, let's say, in those days, or [I 0:37:20] always go to the examples, or you have holiday or something, we try to somehow fix it, or we try to make the common understanding and find the common solution.

b. Challenges or difficulties

Cause PARTY project is the one implemented by several institution and a large number of participants with different disciplinary , cultural background, and academic interest , it is confronted by lots of challenges and difficulties inevitably, including “Avoiding culture conflict”, “Clearing main project issues”, “Reasonable funding structure”, “Efficient face to face communication”, “Mutual need respect”, “Efficient communication method” and “Core team for consistency”(see Table below).

Table 4 Challenges or difficulties

Purposes of actions/activities	Description
Avoiding culture conflict	Get a common agreement on ethic and right from different culture by group meeting or workshop, and address these issues on sharing different culture at the beginning.
Clearing main project issues	Clear the project objective, expecting outcomes, and behavior issues from the beginning.

Reasonable funding structure	Set up a reasonable funding structure taking all partners into consideration.
Efficient face to face communication	Have motilities or meetings in the beginning with all partners at the same time and same place to build relationship in early stage to improve communication.
Mutual respect	Integrate the different needs of the institutions and partners; Get common understanding from both sides; need to understand and be more flexible on different approaches, different working style, and find the common solution.
Consistency in the core team	Have a core team of the project to ensure the consistency .

Avoiding culture conflict

In PARTY project, there are three kinds of collaboration, “academic to academic”, “academic to non-academic” and “non-academic to non-academic”, and people from different country carry on meeting or workshop in South-africa community, thus culture conflict is natural situation. Nevertheless, it is essential to get a common agreement on ethic and right from different culture background by group meeting or workshop, and address these issues at the very beginning, which would make the project smoothly.

R03: I'm thinking with maybe to improve or to overcome some of these challenges maybe at the beginning we have a group meeting or some kind of like workshop to just kind of address some of these issues at the beginning and share different ethics from different culture, what is allowed and so forth.

R35: There seems to be an acceptable level of understanding between academics however; the implementation of plans does not always reflect that understanding, particularly on the issue of ethics interpretation.

R03: But I would like to emphasise on academic and non-academic, because for example when we went to do workshops, when it comes to ethics, right, in different cultures, some of the participants would already decide to take pictures and do things that is not really allowed and we have to kind of like communicate that if you are people from not the academic world, because they don't really know the process

and so forth. But even people from different backgrounds from the academic party surely they kind of know that they have to go through certain process, we need to get the agreement and, yes, before we just go on and start taking pictures or use the pictures and so forth.

R22:because also speaking with Julia about the ethics, and all these things that are super important in these type of projects. I was also aware that I was lacking information, and how to deal with these type of things.

R32:I can't say much about PARTY because I don't think I have collaborated that much, at least one aspect that comes here concerning research and collaborating is this ethical consideration that SASI...that's in Kimberley, based in Kimberley is doing.

R07:So that was very good and also I think the academic people, where they were on the opposite sides with association they were waiting for the association who was kind of hosting me or kind of helping me to make the connections and all of that and then we had very good conversation about research ethics, for example. And with Julia, with her I had a long conversation for example about the research ethics, and she was the one contacting later on the radio station, and trying to organise a workshop for me.

Clearing main project issues

Before the project or the collaboration starts, it is crucial to make participants clear the project objective, expecting outcomes, and behavior issues, which would reduce the pay of communication , minimize the misunderstanding and reach a common sense when confronting difficulties.

R35:My understanding of collaboration is a union of different individuals, with peculiar characteristics such as skills and similar interests, to achieve a common objective. "Impact" in the context of interdisciplinary research project means a measurable evident transformation from an existing condition towards the desired outcome

R36:So they had the advantage of not coming across as academics, which often I think, academic could struggle to overcome, because you've got the objective in mind, and you're trying to achieve it, and often then you lose the nuances of the process.

R22: Because if you are an academic, I think that you are mainly focused on the things that you have to produce, so the outcome for example, in this case, was, for academics, I guess, producing papers, new knowledge, conferences. And all these things are the first, I don't know, the first objective, let's say. Well I think that collaboration, how I experience, or well, the concept, per se, is provide the skills that you have, or the knowledge that you have, to one thing, or to a specific aim, in order to generate an outcome.

R02: Maybe each person learns about what is expected of them and what should they give and what should they bring back and those kind of things, so that it's very clear from the beginning that this is what the objective is and this is what you need to do and these are the outcomes that we are expecting and this is how you must behave when you are there and all those things.

Reasonable funding structure

The usage method of the funding is a core elements to project implementation, thus setting up a reasonable funding structure and taking all partners into consideration should be a big issue for project management.

R14: The problem is that this kind of funding is very complex, nobody understands exactly how to do it.

R10: Everybody had totally different view on how the funds will be distributed, everybody has different clue, especially African partners from the NUST, they had totally different perspective how the funds will be, they had the idea that they are also beneficiary, that they would also get money out of that project directly transferred to their institution.

R04: maybe of the youth, especially the SUN youth because they are limited to some of those funds.

R08: I think that the collaboration has been both good and bad in terms of between institutions and between individuals, because of the strange limitations of the funding instrument....that the structure of the funding is designed in a way to create conflict between individuals and the institutions, ...the funding structure, that was

very challenging, and maybe when the application was submitted this was not entirely clear to everybody so there was expectations about things going some other way as they went.

R09:And I also was thinking a lot about the funding structure and the unfairness in it, but within this framework of this funding structure I think collaboration was quite...succeed.

Efficient face to face communication

When interdisciplinary project starts, communication efficiency becomes an essential factor to collaboration. Therefore, it is important to take motilities or meetings in the beginning with all partners at the same time and same place to build relationship in early stage to improve communication.

R36:Definitely increased group communication, 'cause often I find that there would be increased communication between certain parties that had formed friendships during the mobilities, and it was easier then to communicate on a daily basis, or on a more frequent basis. Whereas I think group discussions really helped everyone stay on board.

R21:Any suggestions to overcome the challenges involved in collaboration? I would say communication, communication, communication. Also making sure that all parties involved understand the terminology and also that one shares individual or expectations and timelines and agrees on some kind of format.

R22:what are the key challenges, and difficulties involved in collaboration? I think this is sort of part of the communication and collaboration.

R16:for instance, that was always the same people arriving and saying, and working with the community, just in that case we have a good level to me of communication.

R11:so there would be actual more communication in there happening, and the relationship would...building in earlier stage also in a better one, and then the communication comes more naturally, in other places.

Mutual needs respect

It is natural that people have different needs for their different culture background, disciplinary and research interests. Whereas, it is also necessary to integrate the different needs of the institutions and partners, get common understanding from both sides, moreover, need to understand and be more flexible on different approaches, different working style, and find the common solution, then we can march on the same direction and would get a good result in the end.

R22: So basically, you are educated to be a designer that is solving needs for a community.

R11: the difference is that of course there are different needs, I think that there must be this common understanding from both sides that we understand the non-academics, and they try to understand academics; and obviously we are from different countries, so we need to kind of... it is a challenge because there are different cultures, we have different approaches, different working style; and I don't think that we need to [inaudible 0:37:08] them those differences, but we need to kind of understand and be more flexible on both,... or we try to make the common understanding and find the common solution.

R13: but we have all realised that it's crucial to have a core team on the project that collaborates throughout the whole project, which can ensure that the different needs are being reiterated and understood from every partner. Whereas I think the different needs can be challenging, but they are fine as long as we are all, like, have the different means to make things happen. So it's collaboration is about long term and being equally involved, and also informed; and the different needs et cetera can be negotiated.

R10: I think that is quite clear that the difficult, and the suggestion that I can give you on the project, is that is very important to align in matching the different needs, the personal needs, about not just people but the needs of the organisation, with the project aims.

Consistency in the core team

Consistency is one of the biggest challenge in PARTY project because nearly 100 people take part in it. Therefore, it is essential to have a core team of the project to ensure the consistency.

R36 : I would also say that a strength would be to have core partners within the project, because it helps for continuity.

R16: we had to face the problem of having a continuous project on the territory, so on site for the radio, and the people from different partner institutions and merge this continuity with the fact that mobilities are usually in one month.

R08: But I guess you could always do more already before applying, so that the situation would be clear to everybody, and have continuity.

R07: So that would be good, just to kind of have longer term continuity in the project.

7.2.3 Workshops - Epistemic Objects

a. Mobility and workshop goals

Both mobility and workshop are the important components of PARTY project, and the goal of which including these subthemes, such as “Promoting personal relationship”, “Agreement on project plan and implement”, “Project facilitation”, “Agreement on cultural difference” (Table below).

Table 5 Mobility and workshop goals

Purposes of actions/activities	Description
Promoting personal relationship	Mobility creates the network and makes people closer, know better, collaboration better.
Agreement on project plan and implement	Goal, problem and action are based on mobility , which will help to get strategic outcomes and understand the project goal; and through which an ethical workshop at the beginning can clear the objective, outcomes, and behavior issues .
Project facilitation	Work on workshop to research together for reading culture and facing difficulties in community, and end up a writing a paper and publish it.

**Understanding of
cultural difference**

A one or two week's kind of workshop at the beginning to get a common agreement on ethics and different culture.

Promoting personal relationship

Mobility creates the network of institutions, academic and non-academic, which makes people closer by speak each other , know better and collaboration better.

R14: Everybody was saying it's about mobility, it's about creating the network and so on... No? But yes, one of the points to increase the collaboration should be also to understand exactly what was this project at the beginning, how it works, to understand how many mobilities you need really...it might happen that in a moment you are to cover a mobility, which is a concept that probably all institutions, academic and non-academic, have to face, we have to cover this mobility, which was not strictly related to the project but it was for the need of covering a mobility.

R11: It would be really useful to have more like in the beginning more the mobilities where there is more partners at the same time in the same place, so there would be actual more communication in there happening, and the relationship would...building in earlier stage also in a better one, and then the communication comes more naturally, in other places. And then also I like the direction where we're going now, that we are planning the mobilities together to get really some strategic outcomes for the project.

R16: we think that when we don't meet the collaboration disappears sometimes; and it starts to grow when we meet in the mobility and we personally speak each other. So for me it works really well when we were in mobility together, that's why I always try to put people not alone but with others

R13: okay, once someone is on mobility the collaboration works much better compared to planning it beforehand

R15: because [Marie Curie 0:55:10] is based on that, it's based on mobility, so it's normal that if you have to do a lot of mobility it's not possible that it's always [inaudible 0:55:17] or [you 0:55:18], or the people who are more involved in the project be present.

Agreement on project plan and implement

Based on mobility, participants could clear the goal, problem and action in the very beginning, which will help to get strategic outcomes and understand the project better; what is more through an ethical workshop at the beginning, it would be cleared on the objective, outcomes, and behavior issues, which provides the guideline of the project process.

R04: So I'd also suggest something like an introductory meeting at the beginning... So I think I mean really it would also be beneficial if at the beginning we already have an idea of what is it we are all aiming for and is everyone really aware of what we want to tackle.

R14: it might happen that in a moment you are to cover a mobility, which is a concept that probably all institutions, academic and non-academic, have to face, we have to cover this mobility,...But anyway, it was always generating [staff 0:58:10] for the project.

R11: And then also I like the direction where we're going now, that we are planning the mobilities together to get really some strategic outcomes for the project.

R02: And I think what's important is that we have like an ethical workshop before the people travel to different communities. Maybe each person learns about what is expected of them and what should they give and what should they bring back and those kind of things, so that it's very clear from the beginning that this is what the objective is and this is what you need to do and these are the outcomes that we are expecting and this is how you must behave when you are there and all those things.

Project facilitation

R03: We worked on the workshop where we did the research together also for the reading culture and the difficulty that we are facing here in Namibia and then after that we end up writing a paper and we published a paper [called SEM 02:21] and we went to Denmark together to present the paper.

Understanding of cultural differences

R03: But even people from different backgrounds from the academic party surely they kind of know that they have to go through certain process, we need to get the agreement and, yes, before we just go on and start taking pictures or use the pictures and so forth. Or maybe have something written down, maybe a two or three page agreement, kind of what is allowed, what is ethical in each different country, or something like that.

b. Determining the academic rationale for the planned activity:

As to academics, there are three main reason for the planned activity, which are “Studying together for initiative publishments”, “Exchanging knowledge”, and “Finding solutions to problems together” (Table below)

Table 6 Mobility and workshop goals

Purposes of actions/activities	Description
Studying together for initiative publishments	A focus of creating a good outcome from initiative , end up writing a paper and publish it , looking forward to further conduct successful research with realistic and achievable needs .
Exchanging knowledge	Research together, reading culture , an open process of knowledge sharing, transference of knowledge between people; enhance knowledge or to learn from the different culture, contribute to a certain activity or project to offer different opinions .
Finding solutions to problems together	Face difficulties together, learn from each other the different methodologies, merge different approaches and methods of work;then sharing best practices to failures, tackle challenges, find solutions to problems.

Studying together for initiative publication

Initiative publication would be the motivation to academics taking part in the project. They publish papers, book chapters, and so on, which may promote the academic research influence.

R04: impact is basically with a focus of creating a good outcome from that initiative and then so it's mostly sharing of best practices, what were some of the failures to face in the way forward or how a certain collaborator tackled that challenge and

then possible solutions to try and create a good impact out of that project or initiative.

R03: Well, I think it's really beneficial to both parties, especially my experience was the academic to academic where we had come together and we published and we gained some knowledge and had different experiences.

R03: We worked on the workshop where we did the research together also for the reading culture and the difficulty that we are facing here in Namibia and then after that we end up writing a paper and we published a paper [called SEM 02:21] and we went to Denmark together to present the paper. It was really interesting and we really worked together.

R02: So that was really beneficial and we got to write...we are busy in the process of publishing, so those are positive outcomes from the project.

R01: And I'm looking forward to further conduct successful research with realistic and achievable needs relevant to the community out there.

Exchanging knowledge

It is wonderful experience for participants to exchange knowledge through researching together, reading culture, which would contribute to a certain activity or project to offer different opinions.

R16: it's an open process of knowledge sharing; so, it's a process which is characterised by transference of knowledge, and different knowledge between people, and it's open, so it should be as sincere and frank as it can be.

R03: Well, I think it's a means to enhance knowledge or also to learn from the different culture. For example, when we collaborated with Esi we had to learn from each other, from different background and different cultures.

R04: From my take it would be basically bringing together academics and those from different roles to possibly contribute to a certain activity or project and then in order to offer that different opinions as they differ and come from different backgrounds and contribute to the success of that activity or project.

Finding solutions to problems together

When implementing the project, there would be different kind of difficulties unpredicted before, it is crucial for the partners to face together ,to learn from each other the different methodologies,, merge different approaches and methods to overcome; moreover, sharing best practices to failures, tackle challenges, find solutions to problems for future collaboration.

R02: From my point of view, collaboration means when you have different people from different disciplines coming together and working together, sharing their experiences, research experiences, their methodologies, they can share maybe what worked in their previous projects or what didn't work, all that can be used to contribute to research and we can learn from that.

R15: it is a challenge because there are different cultures, we have different approaches, different working style; and I don't think that we need to [inaudible 0:37:08] them those differences, but we need to kind of understand and be more flexible on both, that if we know that you're working, let's say, in those days, or [I 0:37:20] always go to the examples, or you have holiday or something, we try to somehow fix it, or we try to make the common understanding and find the common solution.

R04: impact is basically with a focus of creating a good outcome from that initiative and then so it's mostly sharing of best practices, what were some of the failures to face in the way forward or how a certain collaborator tackled that challenge and then possible solutions to try and create a good impact out of that project or initiative.

8. Discussion and Conclusions

Despite participating in the interview, some of the interviewees barely mentioned the mobilities members they have come in contact with rather than how they collaborated on the PARTY project. This might be associated with the difference in disciplines. For example, when asked about collaborations and relationships developed during the PARTY project R40 stated that.. *"It depends on how you see the logic of it, but I was thinking that you would feel closer to people you have had some kind of interaction or activity with than people you meet for the first time."* From the response above, connections that developed into personal relationships correlates to the success of the project activities. Hence, it can be argued that the administrative management of PARTY project could have considered how the different disciplines can collaborate and incorporate the different skills of mobilities staff. THis is food for thought in future collaborations. This way, there would be room for people to work closely together and

ultimately develop personal relationships in the process. This is evident in the response of few the PARTY mobility participants. R39 explained that... *“Those who were outside of this or only attended later mobilities I wouldn't have been so familiar with (or even met). There was an opportunity to develop relationships based on mutual interest which was a very useful part of the action projects although the more formal activities to cluster people via research interest etc. wasn't really successful.”*

A practice of correspondence - as defined by Ingold - provides a useful method of analysis through which complexities can be understood. This paper, however, looks to extend this analysis with an attempt to clarify the idea of correspondence as a particular kind of reciprocal exchange and also that there are materials being exchanged. Here, we can see that such 'gifts' are context-specific and defined by whatever kinds of engagement is being undertaken together with the participants in such correspondences and the specific activities (through which the characteristics of those 'gifts' are determined).

At the level of individual, we can see a kinship that's dependent upon an open approach where personal relationships - constituted and maintained over a period of time - are sites for meaningful correspondence. Such correspondences are entanglements of both friendship and a professional acquaintance - interlocking interests, overlapping expertise or shared experience - which creates a context determined by time, a correspondence that is in-process, happening over time and ongoing so that those participants who are there longest can identify specific points of change or mutual benefit. A kinship that's socially negotiated.

For activities, kinship is partially determined by the investment that occurs between people and those objects of knowledge determined by the PARTY project. Such objects are results of externally-generated processes and so the kinship is determined by the relative power or influence that they possess. Correspondence between individuals and these things is often marked by participants attempting to locate or find a sense of self or agency in relation to it.

For institutions, it was clear that instances of correspondence were marked by a value that was assigned specifically in terms of how they reflect a sense of esteem or where participants worked to ensure that any activities (such as publication or exhibition) met an externally-determined expectation.

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Appendix

Appendix 1 Coding and description for the individual participants used involved in the interviews.

Participant code	Name	Background/disciplinary training	Position in Organisation	Sending Organisation	Total mobilities	PARTY Staff categories	Position on the project
R01	Rosetha Kays	software development	Junior lecturer	NUST	2	Early stage researcher	Mobile staff
R02	Shilumbe Chivuno-Kuria	computer science	lecturer	NUST	4	Early stage researcher	NUST core
R03	Helvi Wheeler	instructional technology design		NUST	2	Early stage researcher	Mobile staff
R04	Emilia Shikwamhandu	coordinator of Rlabs programme		NUST	2	Early stage researcher	Mobile staff
R05	Esa Meltaus	painting and drawing	university researcher	Lapland	2	Technical staff	Mobile staff
R06	Hanna-Riina Vuontisjärvi		management	Lapland	3	Managerial staff	Former Project manager
R07	Mirva Salminen	political science and international	researcher	Lapland	3	Early stage researcher	Mobile staff
R08	Saara Koikkalainen	sociologist	university researcher	Lapland	1	Experienced researcher	Mobile staff
R09	Salla Jutila	tourism research		Lapland	1	Technical staff	Mobile staff
R10	Karol Kowalski		university lawyer	Lapland	6	Technical staff	Mobile staff (project lawyer)
R11	Maija Rautiainen	industrial design and service	project manager	Lapland	1.4	Early stage researcher	Project manager

R12	Hennie Swart	psychologist by training	director	SASI	6	Technical staff	SASI_Lead
R13	Julia Dammann	social anthropologist	anthropologist	SASI	4	Technical staff	SASI_core
R14	Stefano Anfossi		vice president	PACO	5	Technical staff	Mobile staff
R15	Silvia Remotti	interior designer	manager	PACO	7	Technical staff	PACO_Core
R16	Fabrizio Pierandrei	architecture and design	lecturer	PACO	6	Technical staff	PACO_Lead
R17	Federico Fumagalli	communication design	service designer	PACO	1	Technical staff	Mobile staff
R18	Alessandro Medici		PhD student	UNIVLeeds	9	Early stage researcher	Mobile staff
R19	Daniel Brackenbury			UNIVLeeds	7	Early stage researcher	Mobile staff
R20	Valentina Vezzani	Service design	lecturer	PACO	4	Experienced researcher/Technical staff	Mobile staff
R21	Andrea Thomas	fine art	lecturer	UNIVLeeds	2	Experienced researcher	Mobile staff
R22	Ana Encino Muñoz	product design	PhD student	UNIVLeeds	1	Experienced researcher	Mobile staff
R23	Felix Dartey	Graphic design	PhD student	UNIVLeeds	1	Experienced researcher	Mobile staff
R24	Tang Tang	Industrial design	Lecturer	UNIVLeeds	6	Experienced researcher	UNIVLeeds_Lead
R25	Mira Alhonsuo			Lapland	1	Early stage researcher	Mobile staff
R26	Piia Rytilahti			Lapland	1	Early stage researcher	Mobile staff
R27	Maria Keskipoikela			Lapland	2	Technical staff	Mobile staff
R28	Aini Linjakumpu			Lapland	1	Experienced researcher	Mobile staff

R29	Mari Suoheimo			Lapland	2	Early stage researcher	Mobile staff
R30	Pirjo Puurunen			Lapland	4		Mobile staff
R31	Susanna Vuorjoki			Lapland	2	Technical staff	Mobile staff
R32	Tarja Juvonen	social science and social work	lecturer	Lapland	3	Experienced researcher	Mobile staff
R33	Siphokazi Tswane	information technology	lecturer	CPUT	1	Early stage researcher	Mobile staff
R34	Vikke Du Preeze/Eriksson			CPUT	2		Mobile staff
R35	Oluwamayowa Ogundaini		PhD student	CPUT	1	Early stage researcher	Mobile staff
R36	Michelle Van Wyk	jewellery design and manufacture	lecturer	CPUT	4	Technical staff	Mobile staff
R37	Peneria George			CPUT	2	Early stage researcher	Mobile staff
R38	Margareth/Retha De La Harpe			CPUT	6	Experienced researcher	CPUT_Lead
R39	Paul Wilson			UNIVLeeds	6	Experienced researcher	UNIVLeeds_Core
R40	Satu Miettinen	Service design and applied art	Professor	Lapland	4	Experienced researcher	PI
R41	Veronica Barnes	Product design	lecturer	CPUT	2		