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Hochschule für Bildende Künste Braunschweig

“Designing for Active Ageing using intercultural influences:
Examining the role of Playfulness in Transformation Design”

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Biberach an der Riß.

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Locating oneself

“Do not ask who I am and do not ask me to remain the same.”

Michel Foucault

Should I say that the origin of this study is a set of observations I had as an Indian, who was nearing 40 (at the beginning of this work) who was having access to certain aspects of “the German way of living” due to the personal situation, previously employed in a design institute and having an interest to understand the concept of play/playfulness. Yet, it feels like there is something more to this story. After graduating as an engineer and later working in Mumbai, India, I went to pursue my master’s in engineering at an institute there. While doing the final thesis, I happened to stumble across an advertisement from National Institute of Design (NID), a design institute based out of Ahmedabad, which showcased certain projects, especially regarding education and children’s development. Education was a theme I always had issues with while growing up in Kerala. Probably, I always felt the privilege of having a family who could afford and support my education when compared to some of my friends; maybe I always felt the lack of a more explorative curriculum along with an inquisitive pedagogy; maybe there was this feeling of a disconnect between hand (exploration) and head (cognition) in the way learning was presented in the society, especially for children. This advertisement enticed me to pursue another Post Graduation in this area of Toy and Game Design, which I joined in 2003.

Over my studies and later work at NID, I would like to believe that my way of seeing design also evolved. It transitioned from being a problem-solving discipline to something that could instil the qualities of curiosity, concern and abilities to ask (hopefully the appropriate) questions. My own definition of Play underwent its own share of transition. It started off as an activity that is child-centric with a focus on development and psychology to become a quality or rather an attitude that is universal and pervasive, capable of influencing a given society, or if I may say, an entire culture. This was extremely bewildering as well as challenging. The borders that one sets as a part of limiting an inquiry started to get extremely porous, flexible, or even non-existent. The terms of engagements started becoming extremely fuzzy and emergent. One had to relearn to live with an ambiguity, which was a lot more complex than one experienced through design.

Along with my other academic work, I was fortunate enough to be a part of certain design development projects involving handcraft people and their communities. Those projects provided me perspectives about a segment of society which I was not accustomed with as well as their ways of doing things. This also exposed the limitation of the prevailing, dominant top-down approach of doing design developmental projects. This was despite the best of the intentions of the various stakeholders. It exposed me to the complexities involved in setting agendas and bringing together the complex and even conflicting narratives and unravelling them effectively before the various stakeholders.

As a person living in Germany with his wife for the past 6+ years, having learnt a new language and also able to use it with a certain level of comfort during the interview stages in Germany, becoming a father of two wonderful children, negotiating a pandemic at a time when my project required me to be involved in interviewing elderly participants in two different countries as well as a lack of research funding, it has been a fairly interesting journey, a journey which I hope to present for further scrutiny and evaluation.

Overview:

This project of mine deals with five distinct broad topics with its own wide and varied bifurcations and subdivisions. It would have been impossible for me to go into the depths of each of these broader topics or even try to bring out the qualities of each subdivision for this project or for its audiences. The topics of interest here are as follows.

Design, with a focus on Social Transformative Design,

Ageing, where Active Ageing becomes the area of interest,

Interculturality as a learning, sharing quality,

Engagement, as a meaningful communicator and co-creator of personal and social transformation, and

Play / Playfulness as a competent mediator (Latour, 2007, 39) able to interface between all these topics in building a cohesive whole trying to find a path in answering the research objective which is about

“Designing for Active Ageing using intercultural influences: examining the role of Playfulness in Transformation Design”.

The study of Active Ageing from Thalayolaparambu in Kerala, India and Biberach an der Riss in the South of Germany provided the intercultural contexts for this study. As one may observe from this study, the area of play is a broad topic with wide ranging interpretations and audiences. There is an effort to explore the possibility of “engagement of” and “empowerment to” the players during the course of play as an important aspect in this project. In one part of this project, the participants could reconnect with their lived lives and represent them for themselves through a Play-based enquiry method and in the other part, the play’s capacity to engage with the players in creating or making people aware about the emancipatory possibilities was explored.

The primary objective of this project was not in creating a specific designed object nor in designing a clearly defined system of parameters for enhancing the life and living of elderly. It should not be seen as an attempt by me to push the qualities of Active Ageing, a widely used word in the literature and policy development of the United Nations, as a way forward in the ageing process of an individual or a community (though I do feel the possibilities offered through a more complex and slightly ambiguous outlook of Active Ageing outweighs the more actionable and direct approach of healthy ageing currently being promoted by the World Health Organisation (2020)). Through this broader enquiry, the effort was not in definitively answering specific question concerning Active Ageing in an affirmative Yes or No or Right or Wrong manner (as in proving or refuting a hypothesis on Active Ageing) but as a broader map which provides certain directionality and more inroads regarding the area of search. The broad outcome directions of this research want to make people care about their own actions, activities, their contexts of living and derive strengths from them. It also supposes the ability of exchanges and discussions as valued contributions capable of opening existing possibilities or making people look for future opportunities.

As a learning objective, it helps me to understand the breadth and depth that the *concept of Engagement* provides to the daily life and living of the elderly. It provides room for the expressive qualities of Engagement which can be seen, felt, appreciated, shared, and cohabited, but it also acknowledges the deep potential of Engagement which are unseen, unheard, unacknowledged, and hence has a larger unfathomable quality. It gives space for the global causes as well as the local process. It cares for global breadth as well as arm's length. It gives space for novelty and disturbing the status quo at the same time respects and notes the place of maintenance and accepting certain status quo. It probably is about the whole as well as the part, or rather this interactive playfulness between these two extremes.

This document is divided into three distinct phases with the first phase being called as the Theoretical constructs. This phase thus deals with the development of a theoretical understanding for supporting the various critical topics getting dealt with in this project. The first chapter investigates design, by not going deep into the historical evolution of design movements or looking into the various disciplinary qualities like Industrial Design, Communication Design, User Interface Design etc., but rather focuses on placing the discipline on the various objectives or frontiers it interacts with. It considers the methods that design deals with and tries to place its intellectual positioning in comparison to the other disciplinary contexts of natural sciences and social sciences as explained by Nigel Cross et al. The engagement and the transition of design as a means to create a purpose serving, emotionally satisfying simple product system to one connecting with the complex social system is touched upon. It also deals with the aligning of my project objectives in the design of complex systems where human considerations are given more prominence as against a centering as a user.

The second chapter is about Design for Ageing with a focus on Active Ageing. This study doesn't deal with ageing from a biological or medical point of view but takes a social perspective with emphasis on design. This work also tries to consider design's ability in generating possibilities and options in creating positive changes in the life of the elderly. Here the possibilities of design to go beyond a product-based solution approach is also tried out. The current status of ageing at the two locations of study, i.e. Biberach in Germany and Thalayolaparambu in Kerala are done using available secondary information to orient myself to the scale and scope of the work. The UN effort to define Active Ageing, which I found to be a more holistic approach of looking into various aspects of involving oneself with the possibilities the life and living offers to elderly, has shaped the way the topic is taken up for further analysis. The eventual integration with the aspects of Playfulness and later with the topics of Engagement also happened by following this definition of Active Ageing.

The third chapter, one of the larger ones in the current phase, considers Play and Playfulness. This project seeks to understand play for its capability to create possibilities as in the case of design, but also for its capacity to create intrinsic motivation, involvement, and critical attention to the task at hand. It looks into the various interpretations

of occurrences of play along with the rhetoric that has shaped this understanding of play and playfulness. Here I have tried to define the various aspects that constitute Play. Even though Playfulness is defined in this chapter as an attitude to be at Play, I have used both Play and Playfulness in an intermixed manner and tried to connect the meaning-making process of play with the Active Ageing process.

The fourth chapter briefly deals with engagement in multiple scenarios and its possibility as an active change maker or a transition agent. Here the connection between engagement to Play and Active Ageing is also explored. The study looks at the role of engagement in games (where game here stands for a closed system of play) as well as in an open-ended play system. It tries to account for qualities like intrinsic motivation as a means for sustaining the concept of Engagement, in a personal or a social situation of elderly people's life.

The broader concept getting explored in the fifth chapter is about intercultural design. Considering the vast differences in the two sites of my study, an understanding of how cultures perceive a certain idea/concept becomes vital. Models of Hofstede, Spencer-Oatey etc. were explored as a way to understand intercultural communications. The process of constructing meaningful intercultural social interaction and concepts of contact zones by Pratt led to the eventual creation of the prototypical application called Innernetz.

The chapters from 6 to 10 consist of the second phase called the Design Research. In Chapter 6, Preliminary orientations in planning for the methods, it looks into how Research Through Design became a methodology for me to explore this topic of study. It investigated the available secondary information about the topic of ageing existing between Biberach and Thalayolaparambu as well as my experiences of working with social design and design for Ageing contexts. As my initial observations paved the way for the designing of the three research questions and my further observations while working with the elderly groups in Biberach helped to ascertain the suitability and hence the need for further redefining the questions of study.

In chapter 7, Designing the research, along with outlining the critical paths the project follows, there is also an effort to redefine the project boundaries based on my primary observations and secondary research. This helps in fine tuning the nature of participants to be studied. This is done by limiting the age group under study as well as their socio-economic background. There is a reassessment of the possibilities that the project wants to offer to its participants, a chance of being involved in creating an emancipatory future (by projecting a future and trying to visualise a part of this future). Along with the specific qualities of Playfulness that could help create or co-create this future state, the need to go beyond the specific nature of activities into the meaning such activities entails is also brought forward.

It is in Chapter 8, Collection of information; Play as an enquiring system that the actual process of participant information collection takes place. A Lego based method proved

out to be the best fit for my work in between these two cultures. A system of representing 9 interlinked, yet different aspects of life and living of participants was undertaken. This included a possibility of representing the emotional and contextual relevance of these topics/aspects under investigation. After repeated trials, the participant interviews began in Biberach. The interviews in Kerala got cut short due to COVID crisis that grounded the project for around 1.5 years. Interviews resumed, first in Biberach and then in Thalayolaparambu along with translation, documentation, coding based on Grounded Theory.

Chapter 9. Data analysis and Theoretical evolution of Engagement deals with the evolution of a theoretical formulation of information based on Playfulness, first as an Enquiring system and later as an Engaging system. Short stories were used as a way of understanding the contexts of enquiry with keywords coming from the codes and categories evolving out of the data analysis. The relevance of Engagement as a central concept in this study is also presented here along with the other inter-linkages. As a learning outcome, this stage is linked with the experiential learning objective which follows Research Through Design (RTD) method. Taking into account the role of Engagement in the lives of elderly, the three research questions are also reframed in this chapter.

The theory/analysis phase from the previous chapter becomes the basis for Chapter 10, Play as an Engaging system. Here the resulting Projection/Synthesis results in the creation of an experimental prototype, an Android based smartphone App called Innernetz. Using the theoretical concept of Play as an Engaging system, the App becomes an online playspace used to create one to one inter-exchanges between participants from Biberach and Thalayolaparambu. Seven predefined aspects on the life and living of the participants becomes the context of these exchanges which are also moderated by myself. The resulting discussions between the participants as well as with myself leading to the findings from the project (next chapter) and the eventual closure of this project.

This is the third and the final phase of the entire project called Findings from the project containing Chapters 11 to 13. The first one, Chapter 11. Findings from Innernetz, is my findings based on the participant interaction from the App Innernetz. Based on my analysis of the conversations, two distinct findings, one from Thalayolaparambu and another from Biberach, are made leading to a mapping of opportunities for intervention in both the places. The opportunities, based on the time required for an intervention, are divided into short-term, medium-term, and long-term ones. This also contains specific information on the current status as well as the future possibilities with the Innernetz App followed by a second stage of the RTD based learning cycle incorporating Play as an Engaging system. This chapter also tries to define Engagement in the context of Active Ageing by considering a broader spectrum of activities and participants in creating meaningful positive change.

The following chapter, 12, titled Limitations to Engagement presents a cumulative learning from my project, evolving through my readings, interviews, and interactions via Innernetz

App. These limitations, divided into 7 broad categories, have a direct impact in experiencing the benefits of engagement, in turn influencing the daily life and living of elderly. Some of these qualities can be overcome via short term interventions, but most of them are deeply rooted and need long term mechanisms of dealing with them.

The final Chapter 13, deals with my cumulative observations from this project as to how the research objectives I started with have been represented and handled over the course of this work. It clarifies the possibilities of Engagement and the transformative ability of Playfulness as a mediator in answering the specific research questions I started off with and provides certain clues about the aspects that were missed out due to the broader scope of work at hand or due to lack of resources like time etc. The possibilities with the power of local and the need to engage with the local is also emphasised in this chapter.

As the chapters proceed, one could see that they are progressing from one to another building upon the arguments and findings of the previous ones. The reader may also realise a cyclic progression of certain themes or concepts, for example Play. It happens to be a common thread in exploring/binding many of these topics and hence will be seen occurring in multiple contexts in this document.

Phase 1. Theoretical Constructs

Chapter 1: Design

1.1 Introduction

One can state with a certain degree of confidence that there are few areas in our contemporary life that are untouched by design. Its presence can be seen and felt in the form of a physical product or as a virtual interface. Design can be experienced as a transportation solution like an automobile, a communication device as a cell phone, a statement of style and functionality like apparel, or as an information material like a brochure. The range of applications employing design can be seen in the seemingly simple product that binds pieces of paper together to that of the interactive mechanisms that operate a medical product where the correct application defines a life and death situation. As an expectation, design is associated with providing functionality, comfort, novelty, value, identity, uniqueness, appropriateness etc. As an expression, it is associated with creativity, drawing, painting, storytelling etc.

It will be fair to say that there is something more to design as well. Let us take the case of the first iPhone. It replaced an entire product range of mobile phones (where a variety of buttons or knobs were the norm) with a glass screen which sprang back to life on touch through a single button. This was made possible by a thought process involving design (product design, interface design etc.) with ample support from hardware, software, and production engineering. With a single product we entered a new era of mobile communication with products offering simplicity in use at the same time providing ease of customisation/personalisation according to customers taste and interest. This focus on customer needs which gives attention to the emotional aspects, in design language, user centricity (Norman, 2013), is a huge differentiator when compared with engineering design which looks at practicability, efficiency and functionality.

Another interesting aspect of design is its ability to look at systems and design for those systems. Let's consider bone China crockery consisting of plates, cups and saucer, spoons etc. Here one could see not only a similar type of shapes, colours and patterns working together as a single unit, but also consideration of the raw materials, its availability and sustainability, technology and specific skills of production, packaging, and communication and even the planning of commercials. A similar involvement of systemic approach could be seen in the case of planning and executing big events like the Olympics where design plays a more complex role. It may include the design and development of the various signages, information solutions, apparels and accessories, medals, stadiums (including the crowd management) etc. It conveys a sense of continuity within the vast differences through a process of careful structuring of thoughts and processes, by trying to identify certain commonalities

(patterns) in evolving solution(s) that address a specific situation (uniqueness).

Nelson & Stolterman (2012,13-14) have discussed the purposes (ranging from survival to creating something of real consequence and even getting into participation in a never ending genesis) and motivations (ranging from the need to be in power and control, to be of service, and of enlightenment) of designing leading to design action. This they define as a journey and destination (ibid, 37) having a lot to do with change. They define change as triggered by human intention as the heart of the design process (38). On extending this area of systems a lot broader, moving from individual product systems to social systems, design plays a role in trying to understand human social interactions with the eventual intention of a “betterment”, a gradual transition into something more widely accepted and hence appreciated. As quoted by Herbert Simon (Simon, 1996): “To design is to devise courses of action aimed at changing existing situations into preferred ones”. Dealing with the highly variable parameters in a social system is a study of complex system dynamics and requires a different acknowledgement of what a successful intervention could be. If one discounts a broader discussion on sustainability, the parameter for success for a simple product system could be the eventual sales figures defining its continuation or exit from the market. This engagement of design in a given field of enquiry is also defined by following certain processes which will be briefly touched upon in the coming section.

1.2 Methods for Design

As a discipline which appears to reside in a more complex universe consisting of subjective, social, communicative, and cultural aspects, it is easy to question its ways of knowing as well as ways of doing. Given the complex fields, areas, disciplines that design deals with for its existence (arts, engineering, social sciences, perceptive sciences etc.) as well as its subjective realms of association (tactile, visual, olfactory, even emotional), over the years design has developed its own processes and methods. If one goes by the cultures of knowing, a possible categorisation (3 in total) put forward by Cross (2001, 3) could be of interest:

In terms of the phenomenon under study, the sciences look at the natural world, humanities look at human experiences and design considers the artificial world.

In terms of the methods, the sciences look at controlled experiments, classification and analysis, humanities look at analogy, metaphor, criticism and evaluation, and design looks at modelling, pattern forming and synthesis.

In terms of the value of each culture, in science it is objectivity, rationality, neutrality and a concern for truth, in humanities it is subjectivity, imagination, commitment and a concern for justice and in design it is about practicality, ingenuity, empathy and a concern for appropriateness. He goes on to say that designers look at generating a satisfactory solution fairly quickly rather than a prolonged analysis of a problem. There is also an emphasis in design in creating a range of satisfactory solutions out of which one is eventually chosen rather than looking for a hypothetical optimal solution.

Design also deals with what one calls “wicked problems” (Rittel & Webber, 1973) which are ill defined, ill structured, and having less available information to begin with resulting in the inability to guarantee “the correct solution” as in the case of social design concerns.

The process of doing design can be divided into various steps or stages resulting in 6,4 and 3 stage processes. While considering a 3 step process, Analysis, Projection and Synthesis (APS) model is of interest here (Jonas, 2007, 2014). They are closely related to Nelson & Stolterman's (2012) epistemological three domains of knowing consisting of the true, the ideal and the real. It functions as a cyclic loop, where the Analysis, which stands for understanding the problem becomes the inductive phase of the process followed by Projection which deals with creation of options becomes the abductive phase and the Synthesis, which could be the creation of an artefact becomes the deductive phase. Jonas discusses the possibility of a hypercyclic design process model by combining the macro model of Analysis, Projection and Synthesis with the micro models of research, analysis, synthesis, and realisation (based on Kolb's learning cycles). The criticality of the Projection phase, which accounts for the genuine designerly concepts, happens to be the biggest differentiator in this model, bridging the (re)search with its findings. Brown (2009) talks about 3 spaces that a design project has to pass through. Those are Inspiration (those circumstances that motivate the search for solutions), Ideation (the process of generating, developing and testing of ideas), and Implementation (the charting of a path to the market or the final destination). According to him a project moves between these phases, especially the first two, more than once as the ideas become refined and new design directions are implemented. A unique quality of design could be its ability of dealing with ambiguity by using processes and techniques which are at times ambiguous to define.

1.3 Designing with complexities

Viewing design as a process only associated with the creation of new and beautiful objects has been challenged on various fronts. In *Thinking Design*, Indian designer and educator Balaram (Singanapalli, 2011) has outlined the complex set of considerations a designer has to take into account while designing in a vast and complex country like India. He emphasises on the need to understand symbolism, semantics, socio-cultural power relationships etc. while responding to the design requirements through a closer consideration of the local (as against global) contexts including the spiritual ones to make a design-led change. Jonas (Jonas et al., 2016, 11) has critiqued the prevailing role of design as a catalyst of socially disembedded economic purposes. There have been calls to re-examine the role of designer, as creator of tangible technological considerations to less tangible human considerations (Krippendorff, 2011).

Design's role in creation of novel objects of desire is well-known. Those processes have their own structure and complexity as well. The understanding of a designer as someone who combines a specific taste with accompanying skills of drawing, sketching, model-making is one such. This could be considered as a process where the methods are intrinsic to the act of evolution of a finished end product and not externalised as such for external scrutiny. It played well in giving a generic enigma to the profession of design and designer in particular as some sort of a magician capable of pulling off tricks with materials and mediums to create objects or ideas to the awe and surprise of the public. There is still an acceptance of design as a process which happens inside a Black box where the powerful

creative capability of a designer is able to give rise to radically different outcomes than the basic feeds/inputs they engage with in the initial stages of this process; indicating a concept of tacit knowledge. This ability to create visible outcomes out of invisible inputs through a capacity of interconnections, patterning, cross references, intuition, projections etc. is a very strong skill and capacity of design. At the same time, the need to understand the stages, processes, and the inter-functioning of a design process, a need to make this black box more transparent or at least throw some light into the internal functioning has been a matter of interest for many experts.

Many of those initiatives came from experts originally trained in engineering or operations research, especially as a result of successful deployment of practically challenging projects during the second world war, e.g. missile guidance systems or as an aftermath of it with the most grandiose project, the landing of man on the moon. Those were the aftermath of a specific type of knowledge called "Systems Engineering", which is a detailed and structured way of organising various human actors to work towards a common cause through well-defined protocols, channels of communication and functions. NASA (SEH 2.0 Fundamentals of Systems Engineering, n.d.) defines systems engineering as a "methodical, multi-disciplinary approach for the design, realisation, technical management, operations, and retirement of a system". One may assume that such clarity of definition might have its origins in the earlier work and efforts of people like Norbert Wiener, Warren Weaver etc. Weaver, who being an engineer and a mathematician, was interested in the scientific study of complexity. He used statistical methods (Weaver, 1948) as an approach to deal with "problems of disorganised complexity" (with a large number of variables). But his core interest was in trying to analyse and solve problems that were belonging to the middle range, called "problems of organised complexity". These are problems existing between "problems of simplicity" (classical mechanics) and "problems of disorganised complexity" (communication theory, thermodynamics etc.). Those problems, according to him, couldn't be solved by classical statistics and required newer methods and tools (using computational abilities and multidisciplinary expert teams).

The possibility of design to engage with problems of complexity through discernible methods were explored in late 1950's and 1960's through the works of Jones (1970) and Archer (1965) among others. These and similar efforts led to the foundation of a Design Science movement which wanted to create a scientific rigour into the methods used by design with an emphasis on control and prediction. The difficulty in controlling a human society similar to a physical or a biological system was well described by the biologist Ludwig von Bertalanffy as "we know and control physical forces only too well, biological forces tolerably well, and social forces not at all" (Bertalanffy, 1968). He goes on to state that the difficulty in controlling a human system like other systems could be due to lack of knowledge of the laws of human society. The possibility of two widely different system qualities were brought out by Checkland (1999) as Hard (well defined problems with single, optimal solution using rules based on engineering) and Soft systems (problems that are difficult to define or defined differently by various partners involved). While working with human concerns, experts like von Bertalanffy could make out for the possible unwanted

outcome; by employing the principles of control, the possibility of human systems (or selected actants of a system) assuming an absolute power and control like an authoritarian one. The comparability of Weaver's "problems of organised complexity" and Rittel's (Rittel & Webber, 1973) "wicked problems" are quite significant where the later gives importance to management of such complexities through negotiations, arguments, and struggles.

The move away from imparting a rigorous scientific method for understanding design concerns, the complexity or the general problem in reflecting on the role/involvement of the observer in a system to be designed, the ongoing role of design in providing material qualities to human desires thus driving consumption economies leading to serious questions on ecology, climate change etc., the questions on equity, aspects of (universal) health care etc. have all led to questioning of approaches of design. The need to address the complex situations of the present having a proven impact on the future sustenance of our planet have led to the questioning of a user centric way of defining design concerns with a more holistic human centric one with a focus on transformation and with a need to acknowledge a perspective beyond the dominant Anthropocentric ones. Contributions to design thinking, as a way for design to engage with the new and evolving field of human requirement, can be found in Buchanan's four orders of design or from NextDesign's categorisation. Buchanan (1992) broadly classifies design into four areas as communication (signs and images), construction (physical objects), strategic planning (processes and services), and systemic integration (systems and environments). NextDesign (VanPatter & Pastor, 2011) classifies them as Traditional Design, Product/Service Design, Organisational Transformation Design, and Social Transformation Design.

The term transformation design was introduced to the design community in 2004 through a paper published by RED, an initiative of the British Design Council (Burns et al., 2006). They identified 6 qualities of this process as Defining and redefining the brief (working with groups to define the right problem), Collaborating between disciplines (interdisciplinary exchanges), Employing participatory design techniques, Building capacity, not dependency, Designing beyond traditional solutions (systemic, holistic understanding), and Creating fundamental change (proactive, culture changing, designing solutions for no obvious clients). Transformation design (Jonas et al., 2016, 15) can be considered as an approach which tries to provide a value based approach to designing with an outlook of being Holistic (considering humans in their social, cultural, and material relationships, and a focus on social system innovation), transdisciplinary, provocative (provision for a new communicative platform: design for debate), and normative (a politically conceived field of deconstruction and redesign of social relationship). Given the potential Transformation Design offers, I have decided to pursue my project in this relatively new branch of design.

In comparison to natural and social sciences, design is a younger discipline and there has been an ongoing effort to understand research from the perspective of design (Grand & Jonas, 2012), (Erlhoff & Jonas, 2018). The contexts in which design operates are constantly changing and so is the relation of needs between the people and products. Jonas (Jones

& Kijima, 2019, 96) explains this relationship in three orders of complexity, the first stage where the products are more or less able to satisfy the basic needs of people indicating a rather linear relationship. In the second stage of evolution, the products are offering a solution to the needs of the needs, where a growth dependent market is trying to satisfy a new need only temporarily, i.e. providing solutions to attributes like status, meaning etc. The third stage looks into a situation of complexity, a need for orientation, where products and what it offers become secondary and outcomes from such design interventions resulting in complex product-service systems. The author's project involving design and ageing is happening in this third aspect of the above-mentioned relation.

Chapter 2: Design for ageing; A focus on Active Ageing

2.1 Introduction

Ageing is a natural phenomenon, a progression, a reality influencing the life of the people as well as the society it occurs in. This occurs not only through discernable physical manifestations but also through less discernible attributes including emotional, physiological, cultural as well as projectional ones (where it influences the ability to predict and plan into the future). It is one of the most prominent, yet understated belongings a life carries right from the time of birth till the very end. My focus here will be in observing this area through a lens of design with an intention of creating opportunities for a positive change, albeit a small one, in the daily life and living of elderly. This shift could be brought together through the capacities and abilities of the elderly themselves. A simple search with “products for elderly” in Google could reveal a plethora of listings ranging from daily use objects to specialty devices, taking into account the needs and even aspirations of elderly. It can be in the form of well thought through products for daily life (Cooking & Baking, n.d.), leisure or wellness concepts (Nordic Walking Shop, n.d.), communication devices, medical equipment (Products for Health Care, n.d.), creation of personal (houses) and shared spaces (elderly homes, public spaces) etc. The works done at various design colleges (Design School Kolding, 2022), (Design Age Institute, 2023), (MIT AgeLab, n.d.), exhibitions (O'Donovan, n.d.), and initiatives from governmental institutions (Images of Ageing, n.d.) try to convey more positive and appropriate messages about ageing to the general public. Worth mentioning is also the work done by certain artists exploring the potential of new media and Artificial Intelligence who are trying to reimagine the world of elderly and fight ageism (Habte, 2023).

For elderly, the advantages of design intervention has resulted in an increase in usability and lessening of ambiguity as in the case of medical products and assistive devices through effective packaging design, product design, interface and interaction design etc. Combining functional aspects (more intuitive handling, accommodating for ergonomic considerations of elderly, affording non dependency, easy of customisation, ease of storage and maintenance etc.) with emotional ones (colour, form, texture, sound, use of materials etc.) design has been successful in the repurposing of an aid into a trusted assist. This has resulted in improving the connection and communication between the user and the object (physical or virtual) making them more associative and interactive.

Through such interventions many of its users are able to maintain a sense of independence and a feeling of safety and security thus easing the need to have a constant human bystander or a caregiver. In developed countries such approaches have worked well in reducing the costs of caregiving and also provide opportunities for the caregivers to engage in meaningful employment. But on the other side the effect of such independence on loneliness of a person receiving care is a study worth undertaking. Design's resistance to engage with critical aspects of ageing beyond a few product improvements has been critiqued by Dankl (2017) thus urging the design world to engage with the real

concerns by using the vast repertoire of tools and methods it has at its disposal. Most of the design development projects have clear funding objectives and (pre) defined delivery expectations right from the onset of the process e.g., improving the manoeuvrability, folding, and storing qualities of a wheelchair or improving the interface of a ticket vending machine to work for a broader audience etc. Most of the projects are executed through a client asking for a design service model with the expectation of mass production and distribution. This works well with the pre-existing economic model of creating value through a production consumption cycle where quantity and swiftness of return of investments reign paramount. When design starts to approach users' interdependence instead of independence as a prime concern, there are fewer projects to cite. Could the reason be that the process takes a more experimental turn with less obvious outcomes and no specific solutions? The so called user/target group profile also acquires more dynamicity and a widely varying range of qualities and expectations. It could also be that the means of assessing returns through sales numbers becomes invalid thus requiring investment in new concepts of evaluations making them less attractive for the current global business practices.

Moving on with the topics under consideration, the following sessions will throw light on to the two contexts under study, i.e. Thalayolaparambu in Kerala and Biberach an der Riss in Baden-Wuerttemberg and how certain aspects of ageing are represented in both these spaces. The aspect of Active Ageing in the context of this project will also be dealt with in the coming sessions.

2.2 Ageing in Kerala

Kerala is a southwestern coastal state of India with an estimated total population of around 33.5 million. It has one of the fastest ageing populations compared with the rest of India. In the year 2021 the percentage of population that was above 60 was around 16.5 percent. The life expectancy at birth for men and women in Kerala are 72.5 and 77.9 respectively (NSO, 2021), (Kerala State Planning Board, 2023). The current retirement age is 56 with a proposal to raise this to 60 years underway. The old age dependency ratio, which is the ratio of population aged 65 years and above to the working age population i.e. 16-64 years, is around 26.1 percent in 2021 which is again highest in India (ibid). Among the various reasons attributed to these demographic changes, one of them being the continued investments in public education (Kannan, 2022). The local rulers of the state, as well as the British missionaries and other religious sections had systematically invested in education right from the beginning of 19th Century. By the middle of the 19th Century the state had many institutions offering educational facilities in English and also especially to women. Over a period, especially in the early 1970's and 1980's, this resulted in the formation of an educated skilled labour force with fewer opportunities for employment in the state. Many of them migrated out of the state looking for opportunities in other parts of India. During this time, the oil boom in Persian Gulf and resulting need for educated and uneducated hands in building this economy made Kerala a reliable supplier of manpower. This resulted in a huge wave of outward migration and inward flow of remittance improving the economy and its local institutions. Women, though well educated, had lesser mobility

and hence poor employability in comparison to men (ibid, 16). Few of them entered the workforce, especially in the service sector, as nurses, teachers, or as office staff found employment in India as well as outside. All these resulted in a transnational migration for both men and women of Syrian Christians from south central Kerala, Muslims from north, Ezhavas (a sub caste of Hindus) and Muslims from south in search of better pay and opportunities (Irudaya Rajan & Balagopal, 2017, 259-267). Over the years the coming together of multiple factors in the form of outward migration of young people in search for better living prospects, low fertility rates which could be attributed to education and awareness of contraception, reduction in mortality and infant mortality rates and greater life expectancy as a result of investments in health care (public and private) all contributed to a fast ageing population in Kerala when compared to the rest of India. This has even resulted in the declaration of certain locals in Kerala as “ghost towns” (Biswas, 2023). This has come along with an increase in overall standards of living (Ageing and elderly care, 2020) and a Human Development Index (HDI) values comparable to certain east European countries (Kannan, 2022, pp3), (United Nations, 2022).

2.3 Ageing in Baden-Wuerttemberg

Baden-Wuerttemberg is a state in southwest Germany. According to the data (for the year 2020) from the state statistical office of Baden-Wuerttemberg (Statistik-Bw.de, n.d.), the number of people above 65 years are about 2.3 million in a total population of around 11 million. This is estimated to reach 2.7 million in 2030. It was in the year 2000 that for the first time, the percentage of people above 60 started to rise in Baden-Wuerttemberg outnumbering people under 20 years. Baden-Württemberg has one of the youngest populations of non-city states in Germany (Destatis, 2021) and on an average the men in Baden-Württemberg today live to almost 80 years and women 84 years (ibid). This is the highest within Germany. One of the chief reasons for such high values are due to low infant and child mortality rates as well as improved healthcare and health services that people have access to. The state of Baden-Wuerttemberg is one of Germany's economic powerhouses. This has resulted in high inward migration, both from within and outside Germany. In 2021, the average age of newcomers was around 33 years, around 11 years less than the population average (ibid). The old age dependency ratio is 34 and is expected to reach 43 in 2030. This has resulted in higher spendings on health care with a constant increase (+3.2% year on year for 2021) in the number of professionals working in the health-related areas, where ageing plays a critical role. The share of the workforce in the healthcare industry in the overall economy in Baden-Württemberg was around 12.7 % in 2021. In terms of the care needs of the population, about 69 percent of people needing care belong to the age group 75 years and above.

2.4 Establishing the context of the study

2.4.1 The spaces

The reasons for the author to investigate the area of ageing was to a greater extent driven by the author's personal experience of seeing two societies (Biberach in Germany and Thalayolaparambu in Kerala) handling their ageing processes as well as his interest to

look beyond the product centric approach to ageing issues. Biberach happens to be a wealthy small district in the state of Baden Wuerttemberg in the south of Germany with a current population of around 33,700 people and a population density of 470 people per square kilometre (Biberach Population, n.d.) with the district head quarter in Biberach an der Riss. This population has risen almost three-fold from the end of the second world war till now. The major chunk of the economy is a result of a handful of big industries that are based out of Biberach making it one of the richest regions in Germany (Statistik-bw.de, n.d.). There is a stable political climate with allocation of resources in various spheres of people's life and living (Stadtverwaltung Biberach, n.d.). The inner city has well networked public transport facilities which become sparse as one moves out into the countryside. It is also located in between two relatively bigger cities of Ulm and Ravensburg.

The second location of my research is in and around the village panchayat of Thalayolaparambu and parts of Vaikom in the district of Kottayam in the state of Kerala in the south of India. A panchayat or a village council is the basic governing institution in Indian villages. It has a political function by acting as a cabinet of the village. The local population is around 22,500 and a population density of 1170 (Government of Kerala, 2023). It has one of the oldest markets in the region which played a crucial role in regulating the supply of high range products like cardamom, pepper, arrowroot etc. to the main trading centres of Kochi and Alappuzha. It is also located in between Kaduthuruthy, which is a local trading centre for cash crops like natural rubber and the temple town of Vaikom. The local economy is a result of the activities of the market, agriculture, salaried people as well as remittances from the people who have migrated to other areas, particularly gulf countries (Thalayolaparambu, n.d.). Though there is one middle sized industry in the vicinity, its role in the local economy is currently not very significant.

In selecting these two locations for the study, one aspect was my familiarity with these locations which gave me a much needed foothold in carrying out a research study which is more experimental in nature. Despite me living the last 15 years (considering the start of my project) outside Thalayolaparambu, due to the presence of my close family and friends, I was hopeful of recruiting suitable candidates who will be willing to take part in the study. I am also familiar with the local socio-cultural and political activities consisting of people from different caste and religious backgrounds including Hindus, Christians and Muslims. This was contrasting greatly with Biberach, where Christianity is the major religion with a small proportion of Muslims and other religions. As my current place of residence in Germany, I was hopeful of connecting with the local population of Biberach and getting to know some of the local organisations interacting with elderly. I could observe a contrast between Thalayolaparambu and Biberach in providing awareness and various initiatives informing the society about Active Ageing. All these provided me with an opportunity to inquire about evolving contextual design opportunities for Active Ageing considering the similarities and differences of these spaces.

2.4.2 Active Ageing

When does old age start? This simple question gets a lot complicated once one looks into the way the international organisations try to define this age boundary which is based on the chronological age of a person. The United Nations uses 60 years and above as the start of old age, while the World Health Organisation uses 65 years and above as their benchmark (European Commission, 2019, 8). Ageing represents a complex interconnection of various biological, physiological, social, and cultural aspects with a deep personal flavour associated with it.

The importance of an active lifestyle in old age for life satisfaction has been a matter of great interest for social gerontologists since the 1940s and 1950s. Various theories have come up shaping this narrative of old age, e.g., activity theory (Lynott & Lynott, 1996) which gave importance to activities as a healthy adjustment in old age. It gained importance as a way of adjustment in life, especially the retirement life, which emphasises this period as being busy, creative, healthy, and mobile. It was criticised (Walker, 2002), (Holstein et al., 2011) for being overly idealistic for expecting an activity pattern typical of middle age and following a narrow individual perspective of adaptation and satisfaction without giving attention to broader issues of class, gender, race etc. The disengagement theory (Cumming & Henry, 1961), a more controversial one, talked about the mutual de-coupling of the ageing person and the society. It proposed this withdrawal to be universal and inevitable without carefully understanding the meanings that the elderly associate with such signs of disengagement (Hochschild, 1975).

These deficit models worked with the existing industrial system encouraging and emphasising a three-phase model of learning, working, and resting throughout the life course. More positive models of ageing started taking shape towards the end of 1980s more as a reaction to the fear of global ageing and its implications on the economy in terms of costs and expenses (pension and insurance systems etc.). Productive ageing (Butler & Gleason, 1985) came from this thought process, to provide an alternate narrative of ageing. Concepts like ageism (coined by Butler) took shape during this period. A person's involvement in various paid and unpaid work as well as self-care activities were listed under productive activities. Successful ageing initially proposed by Havighurst (1961) and popularised by Rowe and Kahn (1998) is another well-known but severely critiqued perspective with expectations on high cognitive and physical functioning leading to engagement with life. The engagement is looked through both the lenses of social connectedness and productive activities. The emphasis this model places on in achieving disease and disability free state coupled with the word "successful" which critics argued fostered an unrealistic image of agelessness. It is accused of being favourable to those with genetic advantages than a normal situation (Cheng et al., 2015), (Moody & Sasser, 2020).

There is a prevailing rhetoric on ageing which tries to visualise it through terms like "grey tsunami", "age quake", "silver wave", "silver society" (Der Megatrend Silver Society, 2023) etc. If its purpose is to convey a message of seriousness and humane concern to the politicians, policy makers, and also to the larger society by urging them to go beyond

the facade and look closely at a population, their qualities, and needs, then probably it has a space in our social rhetoric. Else, those statements could be termed as purely ageist (Okun & Ayalon, 2022) and derogatory and need no space in a cultured social space (Coleman, 2015, 36-37). The fact that there is going to be more elderly in the population is true and undeniable. Countries like India, which are relatively young with a median age of its population around 28 years, need to carefully consider the growing number of its elderly population (people aged 65 and above is currently 7% of total population of 1.42 billion) (Silver et al., 2023). This median age, according to the German Federal Statistical Office (Federal Statistical Office of Germany, 2019) is 44.5 years for Germany in 2019 where the total population is 84.3 million out of which 20% of the population is above 67 years.

In order to challenge the pre-existing perspectives of elderly as frail, dependent with impairments and reduce the negative perception of them being a burden to society, Active Ageing was proposed. It incorporated qualities of healthy and productive ageing and was propagated by World Health Organisation (WHO 2002,12) as “the process of optimising opportunities for health, participation, and security in order to enhance quality of life as people age”. This holistic definition of Active Ageing has influenced my choice of topics for information collection and analysis regarding the life of people and their lives in a society. This was done for people in the age group 60 to 75 years in Thalayolaparambu in Kerala, India and Biberach an der Riss in Baden-Wuerttemberg, Germany. The author is aware of some of the critiques regarding the concepts of Active Ageing due to the presence of healthy, productive, and successful ageing strains in its evolution (Katz, 2000), (Boudiny, 2012). There is also focus from various industrial societies to define ageing as a productive activity considering the strain an ageing workforce could exert on the shaping of the economy, especially the care and pension systems (Guillemard & Argoud, 2017, 165-185). This in turn has resulted in a focusing on efforts to prolong the working life as well as improving health of the population through physical activities in the hope to remain fit in their old age (Boudiny, 2012, 1080).

The author feels WHO’s definition of “active” as more accommodative and not only dependent on the performance parameters of physical factors or an ability to do some work. It is seen as an invitation to the human being to engage in social, economic, cultural, spiritual, and civic spheres of life according to personal abilities, wishes, and possibilities a situation offers. There is a need to explore and understand these activities both from a personal as well as social standpoint that the author has used the potential of Play and Playfulness to understand this interaction and deepen the inquiry. The nature of the two spaces (Biberach and Thalayolaparambu) offers opportunities to observe and understand the quality of such active interactions. An understanding of the possibilities with intercultural interactions mediated through Play could be one way of getting to know about the area and the challenges at hand to plan for strategies of handling the same.

Chapter 3: Play and Playfulness

3.1 Introduction

In this work Play/Playfulness can be located as a common thread connecting the various other aspects of the study. As stated earlier in the overview, this is the canvas on which the entire journey is played out. This is a canvas which has its unique innate qualities at the same time capable of influencing the quality of other aspects due to its proximity or as a result of interactions.

A few of the perspectives on play are worth considering here. It is influenced by who is making the observations and on whom as illustrated by Henricks (2008). Psychologists are interested in finding out the causes for actions, orientations, and experiences of individual players. By studying personal play, they try to understand and unearth the moral, emotional and cognitive patterns that guide a person's life. Play becomes an integral factor in the understanding of child and human development (Frost et al., 2012) as well as a critical aid in human creativity and problem solving (Brown & Vaughan, 2010). For educators, especially early childhood educators, play more or less acts as a means to understand human learning and socialisation. They see it as a vehicle capable of providing a new level of skills, knowledge, and value commitment. The field of sports and leisure, a subfield of education, is interested in looking at play from human or children's physical development perspective. For anthropologists, the study involves how play influences the life of adults and children and how it is linked through the various cultural forms like games, public festivals, and ritualistic practices. Sociologists explore the area of hierarchy and meanings of group identity through play involving groups, communities, and society. Folklorists look at play from human oral traditions of songs, stories, nursery/children's rhymes, street games etc. Play is interpreted as a wild, socially creative imagining where traditional social patterns prevail. It provides the children an occasion or space where socially disapproved fascinations are laid bare. e.g. sexual fantasies, aggression etc. Historians have looked at play not only as a documentation of the various toys, games or activities performed by various societies over time, but also the transition in meanings with time. Researchers who study animal play behaviour have shown certain similarities with human counterparts. It helps not only in understanding the development of a specific animal species, but also in understanding the biological and evolutionary foundations of human play.

3.2 The occurrences of play

Consider the following scenarios where a child puts on a mask and takes aim at an imaginary someone using a bow and arrow or a group of adults sitting around the table for a session of card games or a family inside a stadium wildly cheering for the points won by their favourite tennis player. One could identify a common thread of play even though the nature of players, the context of play and expectation of the end results are vastly different. For a child, it could be an imaginative play, probably as a knight who has taken the role of giving a fight against his enemies. For the second it could be an evening get together with good music and food with a group of friends, probably with an aim to win

the game for oneself. In the third case the family ends up as consumers of an exciting duel between two archrivals who are vying for glory and probably a space in history.

By looking at the diversity of the expression of play one can safely say that play behaviours are not only anthropocentric activities. It is also not an age specific activity as well. One can see many human adults engaging in activities like games, doing puzzles, trying out new things, daydreaming (Caughey, 1984), sexual intimacy (Betcher, 1987), gossiping (Spacks, 2012) etc. which could be classified as play.

Zimmerman (2022, 20-30) illustrates 11 play scenarios and tries to identify the underlying factors influencing the play situation. Considering the relevance of play in my current enquiry the following 4 scenarios could be of interest here

1.0 Playing with something: to do playful things with something that is not necessarily meant to be played with in a certain way. Such acts could result in a newer understanding and a way of engaging with the world. In my project, the use of Lego blocks by the participants as a way of looking into and thus expressing various personal aspects of their lives is situated in such a perspective. The ability to find a metaphorical meaning that could be created and shared using a mundane piece of Lego building blocks happens because of such affordances that play provides. Even though there are broader rules or limits which are set in using those blocks, every participant had the possibility to create their own representations based on their imagination and awareness.

2.0 Playing against the rules: the logical rigidity of rules is opposite to the unpredictability, spontaneity and creativity of play thus creating a paradox. But for the play to emerge, it requires the same set of rules thus creating a dependency of sorts. Here again, as stated above, the broader guidelines provided in using a Lego based system for my research work could be considered as the rules of engagement. But not everyone is expected to follow the same way of expression due to the flexible qualities of creating individual meanings and ways of expression. The way certain boundaries could be reinterpreted needs to be prior considered but cannot be rigidly emphasised during the construction process. There may be limitations with the number of pieces or the colour of them apart from the way some of those blocks are placed on a certain location. These sort of uses giving spaces for personal interpretation of a given agenda within a given framework at the same time giving possibilities to reinterpret, edit, substitute etc. needs to be afforded in the given system of playful interaction I am planning to construct.

3.0 Play as a free movement: Here play, an ability to move between rigid structures, is called into consideration as a transformative tool. In the case of social transformational approaches, the designer tries to set the rules and structures of changes. They do this with a hope that they will eventually become agents for transformations. At the same time, they are unable to clearly predict the outcome of the play they designed. This approach has strong resonance to my current work. The personal as well as the social realities could create a sense of tightly bounded structure with minimal leeway for exploration and reinterpretation. If the ability to think beyond these structures cannot be offered, the chances of creating those break away and transformative structures will never become a reality. The possibility to dream, reinvent, ability to create or view multiple perspectives, ability to empathise with someone or something etc. needs to be a reality if new structures

of change have to be envisioned. It should provide a space of freedom, even for a shorter duration, to shrug off the baggage of those bounded realities, to explore something out of the normal ways of doing and experiencing.

4.0 Play as something to do: Here play is perceived as an activity encouraging active participation. And it is the understanding of contexts that makes the participatory actions meaningful. It is about carefully understanding human behaviour in order for the meaningful give and take to happen. This aspect also has a significant role in my work. The act of thinking coupled with an ability to act or do is to be maintained as conjoined quality if changes have to happen to a given way of seeing. This provides an opportunity to see for oneself how certain realities are getting shaped. But it also provides an opportunity to share and learn from each other through such creations. It helps in creating prototypical visions which could be tested out for its lacunas and inefficiencies before a more scale up vision is proposed and implemented. Though design as a process deals with prototyping as an integral quality in its functioning, a playful arena of construction provides a completely different dynamics. Here one is open to criticism, questioning and most importantly a shared responsibility of improvement. This openness to accommodate a shared creative space, like a creative commons like environment with the possibilities of being in a playground of life, could be a great help in coming up with solutions for the future. The appreciation for a shared co-creation is a possibility of such a construction phase.

Yet, trying to pinpoint and define 'what exactly is play' is exceptionally challenging not only for the casual seekers but also trained experts. The Dutch historian Johan Huizinga (Huizinga, 2016) considers play as one of the critical formative elements of human culture. He defines it as an utterly absorbing, yet not serious activity, happening in an area separated from daily life, which was conceptualised as the *Magic Circle*. This is defined as a temporary world within the actual world, a transformative space, with its own realities and rules.

Anthropologist Roger Caillois (2001, 12) has classified play into 4 categories.

Agôn: Competitive play. e.g. chess, contests, sports etc.

Alia: Chance based play, based on luck. e.g. lottery, toss of a coin etc.

Mimicry: Role play or make belief play having elements of creative expressions. e.g. theatre, performances etc.

Ilinx: Playing with physical sensation using the body. e.g. whirling until one falls down etc.

He subdivides each of these 4 categories into two groups called *Paida* representing wild free forming improvisational play and *Ludus* representing formal, rule bound and regulated play.

Given the complexities with types of players and diverse group of play scholarships, Brian Sutton-Smith's 7 rhetoric (Sutton-Smith, 1997) trying to deal with the ambiguity associated with classifying play could be worth referring to here from the perspective of a playful Active Ageing rhetoric.

1.0 Play as progress: It works on the perspective that development and adaptation happens through play mostly for children and animals. The benefits play could offer for adults are usually not accounted for and is a concept cherished more from a western point of view. For him, the benefits of play attributed to development are more assumptions than actual demonstrations. It comes out more as a need of the educators to represent playful imitation as a form of children's socialisation as well as moral, social and cognitive growth. Here play is seen primarily as a mode of development than as enjoyment. My project objective of looking at Active Ageing as an individual as well as a social development process falls very well within this rhetoric. The idea of play to extend on the rhetoric of progress to the entire spectrum of human life holding together the possibilities of adaptation to the future challenges and changes will be a powerful, albeit less employed one. The need to create a narrative of progress which is not unidirectional (as a pointed arrow), but something like a wave or gust of wind, which takes a forward path will be an interesting one. Here a rhetoric allowing for varying abilities to find their way at their own pace will be an ideal which could accommodate the image of ageing. It could provide a true platform to support the possibilities of an actively ageing human being as proposed by various theories of ageing.

2.0 Play as fate: It is one of the oldest rhetoric of play. It is based on the perspective that human lives and play are controlled by destiny, by gods, by luck etc. Here humans have little control over it and except, perhaps, through the skillful use of magic and astrology. This play is observed in the form of gambling or games of chance. Such rhetoric finds its audiences more with people from lower economic groups than with the intellectual elites. It also contrasts with the modern theories of leisure which emphasises on the exercise on individual agencies and free choices. Yet in ageing, the play of fate is a widely used terminology, indicating a sudden turn of health or in the living situation of a person resulting in a vast difference from the previous one. In creating a transformational space, such a concept has a very valuable existence as well. Rather than waiting for an agenda to control and help manage one's fate, it could probably indicate the need to have perseverance during the play of fate. The possibility of finding feet in between an unexpected chaos could come more effectively through an acceptance of fate and a "play" of fate in a process of change.

3.0 Play as power: This is another amongst the oldest prevailing rhetoric. This finds application around sports, athletics and contests. This stands for community held values rather than about individual experiences. As Smith says "here power is about the use of play as a representation of conflict or as a way to fortify the status of those who control the play or are its heroes". It is an older rhetoric, having a similar timeline as warfare and patriarchy. With widely varying consequences based on caste, religion, monetary capacities, gender, abilities (physical, mental) etc., aspects concerning power are a critical factor around ageing. The possibilities to shift the pre-existing narratives of power are critical in making a transformational process to sustain. The ability to provide an alternative, yet accommodating (shared) narrative is a possibility with play (role playing or being an audience to a performance). With its ability to create alternative outcomes that can also be visualised (probably even felt), play could be a powerful medium to challenge the established perception of power and provide an alternate reality to it.

4.0 Play as identity: This is also a rhetoric with an ancient quality. This looks at play traditions as a means of confirming, maintaining, and advancing the power and identity of the community of players. One can observe such qualities of play in children's play as well. The huge diversities existing within the ageing beings also speak about a more complex identity than a singular one. Yet, it stands for a special state of affairs in the life of a person calling for a more careful formulation of these micro identities dispersed within an aged social identity. The presence of multiple identities may also lead to a situation of conflict, misunderstanding or unease (within those identities) which can again be looked through as a play between identities to create a higher order one. It could also be a space of conflict with other social beings calling for negotiations or creation of temporary solutions where these identities are made transparent in order to make evident a given situation. Use of an Avatar (a pseudo identity) offer the elderly to enter, as a visitor, into a space of such social complexity by creating an alternate identity for oneself so as to explore an area and make aware of certain other truths or realities.

5.0 Play as the imaginary: Through playful improvisations happening in literature and in other spaces, there is an idealisation of the qualities of imagination, flexibility, creativity etc. happening for both human and animal worlds. This rhetoric finds its place in the contemporary world due to the emphasis on modern positive attitudes towards creativity and innovation. This belongs to the category of modern set of rhetoric with a lineage of around 200 years. The possibility of using play-based ideas of creating an imaginary world which was previously inhabited by an individual is worth exploring. The ability to represent oneself in such a scenario along with other personal and non-personal occurrences could help in providing a better orientation of oneself in the current point of time. This also provides a possibility to take a jump into the future carrying along with oneself certain life scenarios and then visualise how they could be constructed and arranged as a projective quality. This could offer scenarios grounded in the present but extending into the future thus allowing for creation of alternatives or even playful extrapolations.

6.0 The rhetoric of the self: This rhetoric finds applications in acceptable solitary activities like hobbies or high-risk activities like bungee jumping etc. A lot of attention is given here to the desirable experience of the players like fun, relaxation, escape etc. as well as the intrinsic or the aesthetic satisfaction of the play performances. Here the interpretations of play are influenced by the secular and consumeristic manners of modern life. In an Active Ageing scenario, the possibilities of hobbies and personal activities affords a valuable scenario for exploring this self-based concept of play. The need to establish a rhetoric of "an actively ageing playful self" is a necessity in society, to take back the narrative of play and playfulness as something belonging to the young and the energetic. There is a need to re-establish the universality of the play through such discussions.

7.0 Play as frivolous: Usually, it is the activities of the idle or the foolish which gets qualities in this category of rhetoric. In contemporary time, it seeks to turn on its head the work ethics view of play. Frivolous rhetoric could also be applied in the context of a historical trickster figure or a fool whose job was also to act as a critique to the existing rule makers. They were once the central and carnivalesque figures who created playful protests against the orders of the ordained world. This happens to be one of the most powerful rhetoric of play which if employed effectively could act as an extremely powerful

transformational tool of ageing. The ability to playfully critique an existing structure at the same time make people aware about an alternating possibility could be an effective way of binding the actual and normal with the possible and the potential. The possibility of providing a peekaboo into an existing scenario through a jovial, indirect critiquing (like a Chaplinesque expression through moving images of the happenings of the world at his time or the effort of the Colombian mayor Antanas Mockus in playfully managing the complex human dynamics with in the city of Bogota through his interventions (Caballero, 2004)), could help invigorate the audience to the images of ageing in a radically different, yet head on manner.

Miguel Sicart (Sicart, 2017) has provided 7 different, yet interrelated qualities to play in order to understand it.

1.0 *Play is contextual*: A formally bound space with its own rules and community of play is called here as context. It is a complex relationship of people, rules, negotiations, locations and objects. e.g. the various ways of playing football ranging from professional to ad hoc play spaces in smaller poorer neighbourhoods. It is through identifying the cues embedded in the objects of play that one identifies that the space, things, and collectives as open to play. Rules (of various forms) play a significant role in the context of play. It is through rules that the creation and shared identification of contexts happens. But the same rules of play are challenged by the transformative capacities of play and hence cannot be considered as eternally binding.

2.0 *Play is carnivalesque*: The ability of play to exist between or rather find an equilibrium between an excessive order and compulsive destruction is termed as carnivalesque ability. It is an outcome of expressive capacity of play. It must strike a balance between the creative and destructive capacities for its existence. By focusing on laughter, a carnival can dismiss the oppressive forces of an establishment at least temporarily. It allows for the generation of a bodily form of knowledge that creates certain truths.

3.0 *Play is appropriative*: The possibility of play to take over and even go beyond the predefined context is called as appropriative here. The play activity is the more dominant factor with contexts only acting as a subserving factor. Through play, a formal quality of spaces could easily turn into informal ones. e.g. a parking lot or an office space assumes a different quality in the wake of play. By appropriating the objects of play, it comes into its existence.

4.0 *Play is disruptive*: By playing with and within a context, the normal state of affairs is getting disrupted. This helps reveal the underlying working function of a given context. A disruptive nature of play helps us reveal our conventions, assumptions, biases, and dislikes. By engaging in disruptive play, it helps to create shock, alarm, or challenge conventions. On an extreme level, a disruptive play can influence the mental balance of the players leading to challenging consequences, e.g. addiction to gambling.

5.0 *Play is autotelic*: According to Csikszentmihalyi (1997, 117), 'autotelic' is a word composed of two Greek roots: auto (self), and telos (goal). It is an activity someone does for its own sake as the main goal is the experiencing of this activity. As an activity, play can have self-defined goals and purposes, happen within a specific duration and space and have its own specific conditions for ending. The autotelic nature of play needs to be

constantly discussed and negotiated. There are no formal rigid boundaries for autotelic play. Though such play has a purpose of its own, they are not fixed. One can start the play with a purpose and then change the goals either through discussions with others or by acting alone.

6.0 *Play is creative*: It is an act to playfully interact and engage creatively with the world around using technology, context, and objects. E.g. While playing games, tactics can be considered as creative expressions that are extremely contextual and goal-oriented activity with a specific mode of interaction.

7.0 *Play is personal*: As an expression, play is shared, yet deep down it is a highly personal one. It has a strong relation to our sentimental, moral, and political memories. Play helps us in finding our own expressions. It helps us in understanding our worlds. Through challenging establishments, it helps create new knowledge, establish new connections, or break older ones.

3.3 Connecting Play and Playfulness into the research objectives

Sicart (2017, 22), following Millar (1968, 21), defines play as an activity and playfulness as an attitude. For Millar the centre point of playfulness is (21) “an attitude of throwing off constraints” which could be of physical, emotional, social, or intellectual nature. It acts as a critical interface between play and the context it wants to influence, making it more palpable, engaging, and interactive like a professional player who uses certain tricks to entertain the audience and oneself while employed in the act of a very high stakes game. A similar perspective about playfulness but from a (online) game perspective can be seen in Köknar (2019), who argues about the need of design to shift the focus from a user centric to a play centric one.

The author's own categorisation of Play (Gopinath, 2018, 17-37) contains the following 10 attributes which can exist as singular or in combination with each other. This could be considered as a “Sandbox” way of looking at play which evolved out of the various rhetorics of play, open ended discussions on play as well as the description of play used in game studies. As in the case of children's sandbox where a wide variety of play situations, play habits, and play objectives are accommodated and supported, my categories are an identification of those generic qualities that help sustain those play possibilities. Let us re-examine the research objectives I was having through the lens of the categorisation of Playfulness I have proposed and see how the interaction between them takes shape. The research objective was **“Designing for Active Ageing using intercultural influences: examining the role of Playfulness in Transformation Design”**. The possibility to arrive at certain speculative perspectives combining the topics involved in this research (Active Ageing, Transformation Design, Intercultural interaction etc.) and Playfulness could be a way of opening up these topics for further scrutiny and a way forward.

1.0 *Flexibility*: The possibility of being modular yet interlinked with a capability of creating multiple options within an existing scenario is indicative of flexibility here. It is a constantly malleable yet non-breakable quality to transform and redefine itself and could be a physical as well as a cognitive quality. Like a play dough, which is a physical material, it can change its form based on the imagination and capability of the player. When this concept

extends to thoughts or ideas, the possibility to find new, alternate, and even multiple possibilities for a given idea is another possibility. In making use of this quality in the daily life of elderly, with a play of words, the word Senile (which is ageist in its construct) could be reinterpreted as “Seen Nile”. This goes on to represent someone who has seen and experienced the world. This is a more transformative experience to an otherwise demeaning word.

In the case of time a person has at hand, senior citizens have a greater advantage than with youngsters. They could start building on the flexibility they have with time as an end in itself that the youngsters could emulate, maybe as a stand against extreme productivity and over working.

2.0 *Immersion*: This stands for the ability to construct intrinsically motivated experiences. It is about the quality of an unabated attention and being lost in a process without worrying about the time being spent or getting overly excited about the final outcome. This could result in deep engagements of the players with the play systems. In the case of the elderly, if they could identify and select themes that may fit appropriately with their abilities, the chances of initiating a deeply motivated set of activities could be a reality. A quality with immersion is that it is transferable as one may experience while watching a certain movie or a performance. An elderly person’s love for reading or storytelling could be employed within the community to talk about books or as a way to talk about a travel experience or discuss matters of concerns influencing their lives. Here, the need to create a space which could afford (create and preserve) immersion becomes very critical. The role of other social institutions like government, community, schools etc. who work with services gets very critical in helping create such spaces of sharing. This could be a transformative experience for the creators and receptors of a service.

3.0 *Curiosity*: Here it indicates a readiness to find answers to situations. It can be in the form of an intrinsic or taught quality consisting of a gradual or constant questioning and an effort for transition. In the case of a play object, it could either be the natural curiosity of the player which might let them take the further steps or it could also result from the capability of the object to create curiosity generating scenarios that the player feels like exploring further. In case of ageing, the need to establish curiosity as a life spanning quality is very important. The strong association of “being curious” as a child’s quality has to be transformed into a childlike quality influencing all ages. This may call for education of not only the elderly but also of the entire society about the possibility of being curious. The possibility to be curious about human relationships, one’s own body, spatial relationships, about establishments, social expectations etc. needs to be supported and encouraged.

4.0 *Surprise*: The possibilities to transform structures with a sudden change of situation, yet capable of bringing back normalcy and continuity is denoted by surprise here. In itself, it could be a one-time phenomenon in a controlled environment. This could be explained through a display of fireworks filling the night sky with a show of light and sound. From the very beginning there is a need to establish a safe relationship between the audience and the show. If a similar experience is repeated all over again, the audience may lose interest and may abandon the show. Hence variation comes as a handy cohabitant to the concept of surprise. Similarly, an Active Ageing scenario should be able to offer surprising

discoveries as a core component to its stakeholders. This may be through initiatives that may help the stakeholders find surprising capacities about themselves as well as the outside world. For example, a locally initiated amateur historical fact finding by a senior citizen group could result in surprising information on the people's history of a place thus enhancing on the local myth of a space. The concept of surprise could be effective with elderly as a "Hope Lantern" against loneliness. This may happen in the form of unexpected visits of a group to the place of stay of elderly with some gifts and good humour.

5.0 Sensorial quality: Involving the use and manipulation of all or some senses is critical to Play. Usually defining limits to sensorial stimuli is a complex task in a play situation. It is to a larger extent defined by the context of play. e.g. the ability to withstand the noise inside a stadium during a game as against traffic noise while going to work. In Active Ageing scenario, activating the sensorial quality is beneficial for the active use of the sensory organs, especially in the therapy situations. This goes not only in creating a sensorially rich or appropriate therapy, but also in creating a schedule where the person undergoing therapy and the therapist are able to set certain objectives of recovery and use play based means to reward and engage the sessions without it becoming uninteresting. For improving intergenerational contacts, this could act as a means of improving the linkages between elderly and the community, especially with small children. This could happen through creation of play objects that could be used in kindergartens or nurseries based on traditional or prevailing stories etc and can be used as an aid while teaching.

6.0 Relativity: This represents a state of being open, accommodating, and inclusive. It talks about sharing, caring, and co-creation where synergy of the whole is replacing the individual and the specific. It is a quality of being empathetic to the concepts, contexts, and cohabitants of a system. This is a quality which is important in the area of Active Ageing, especially considering the huge spectrum of ageing considering individual abilities and possibilities. There is also a need to consider the inter-generational differences between the old and the young adding to a more complex situation. The possibility to create avenues where co-creation and sharing could be a way forward will help in building some bridges between these extremes. A possibility to record and display the life of an elderly seen through the eye of a young person and vice versa could be one of such possibilities of exchange and awareness. A representation of personal milestones from each of such perspectives could establish a set of interesting outlook that could be discussed further upon. Even impersonation of an elderly by a young person using suitable props (which may simulate certain daily living experiences) could help in establishing a strong idea about the life of the other person.

7.0 Challenges (Unique): The ability to be stretched, yet within the limits of breaking is critical to Play. This accords the creation of a safety jacket which at the same time is not completely pervasive and ensuing. Maintaining challenges to an optimal level, which is also a personal quality, is critical in maintaining the interest in Play. It ensures both continuity and retention of motivation to Play. Too much of a challenge could be overwhelming at the same time too less of it could result in boredom for a player. As challenges are a critical aspect of an engaging Play, it is equally important for an engaging active life. The possibility to select one's own challenges is only feasible in limited circumstances. The need to have control on the parameters defining circumstances plays a role in

framing those challenges. But, in case of external challenges, whose origin and course are unknown or unpredictable, a possible breakdown of such challenges into smaller discernible pieces could be a possible means of tackling them. Here again one needs to be aware about the limits one could push oneself against. Ageism is one such example where one might need a more coordinated and at the same time a distributed approach consisting of involvement from multiple individuals and institutions. The need to have constant exchanges with other cohorts could help in ascertaining the possible options and one's own capacities in tackling such a situation. Another type of Playful challenge for self as well as intimate groups could be like abstaining from making any non-critical consumption of goods over a certain period to be rewarded by a cultural evening or a voucher for purchases in a local farmhouse. I am calling it here as "Tick me not" for the ability to abstain from the itch of consumption for a certain period of time.

8.0 *Communication*: This is the ability to initiate, transmit, share, and transfer information, creating feedback loops for planned, emergent and autopoietic improvements. As a multi-modal activity primarily involved in the exchange of contents, communication has the ability to effectively deal with various aspects of ageing actively. It ranges from establishing those connections within oneself as well as with others. The contents of communication could be variable, based on the specific contexts of ageing. But it could also be about other sub contexts of ageing which influences ageing in a society. This is one aspect which is used widely in this project both during the information collection stage as well as in the experimentation stage which resulted in contextual opportunities for future intervention.

9.0 *Prolong redundancy*: Talks about the ability to educate, evolve, create long lasting value through planned and persistent activities. It has a role in ensuring sustenance of a process due to its quality to create individual as well as shared meanings. For an elderly person who likes to read story books, a possibility to read stories to children in a kindergarten could be a valuable way to spend time. It may also help the person to feel wanted and connected to a newer set of audience. This in turn might help the person prepare for future assignments using new ideas and initiatives thus continuing with an already existing skill, i.e. a love for reading.

10.0 *Customisation*: A meaning making process of self-reinvention through (less) intensive, unique, and appropriate intervention. Active Ageing offers ample avenues of customisation possibilities through which a wide range of possibilities could be opened for connection and communication. The work of Rita Ebel and her team (LEGO OMA - AWO Stadtverband Hanau E.V., n.d.), also known as Lego Oma (roughly translated as Lego grandmother), exemplifies this. They create customisable ramps using donated Lego pieces and install them in the places where people have difficulty to access using a wheelchair or children's pram. Such ideas could also work with the abilities of the elderly citizen and the organisations like schools, kindergartens, old age homes etc in creating extremely unique experiences.

One could see from the above classifications that even though they have unique conceptual qualities, their existence in each scenario is extremely intertwined. As exhibited in the last concept of Lego Oma, the Lego based designs provide a great deal of flexibility in its

application which in turn offers unique customisation possibilities. This in turn creates a very strong communicative element, invoking an element of curiosity for the users of the product. This solution looks into accessibility where the users feel an emotional connection with the offering.

Some of the aspects of Play have been used in the design and development of the Lego based user research as well as in designing the prototypical Android based App called Innernetz. The communicative and reflective aspects of play along with flexibility and customisability (assigning colours, editable pictograms, adding pictures etc. for the App), implementing challenges which can be perceived and managed (number of pieces in Lego and creating an interactive interface for the App) are some examples of this implementation of the aspects of Play in this project. Play here happens as a result of one or a few of those aspects working in unison with the participants in coming up with a necessary outcome (the representation and communication of different zones about a person's life in the case of Lego and Innernetz stage). The possibility for all the aspects to come and work together could be an ideal, but not a necessity, in creating a Playful situation.

3.4 Association of meaning and play in an Active Ageing context

Huizinga (2016) frames a fascinating observation about play. He states that in play, there is something "at play". Here one can sense an implication that all play means something. So, what does play mean? Consider a game of chess having a board with the set of pieces, its rules, and the players. Just having a board of chess doesn't give rise to a meaningful play. It comes from the complex interaction between the players, the system of this game along with the context this game is played. The difference in meaning between an amateur game of chess played in the confines of a house will be vastly different from a highly politicised match between contestants from two countries who are feuding. Even within a game, the piece and its specific location has a certain meaning according to the rules of the game. The instant those pieces move from its original position, the entire meaning of the game changes to assume a newer one.

Salen (Salen Tekinbas et al., 2003, 30-37) explains that a game becomes meaningful when the actions and as a result of this the outcomes of a game are both discernible and integrated to the larger context of the game. Here discernible means the player can clearly perceive the results of an action in a game. It lets the player know what happens when an action is committed. And integrated is when the relationship between the action and outcome is integrated into the larger context of a game. As in chess, where one move has a long-standing implication, an action is not just local in its scope and reach.

What could be the relation between play and its meaning? When we look at games, as a system, it is closed and pre-defined. Hence one can plan for a specific interaction and as a result discernible outcomes, thus leading to specific meanings. In a game of football, a miss by your opponent goalkeeper earns you a point and probably one step closer to victory. Even there, players try to break this closed structured world of games and try to search for their own interactions and hence meanings, like using very unique

ball handling techniques just to create awe in the audience (and probably better financial returns through social media viewership). Through customisations, breaking the rules, or even using subversions, a newer set of emergent meanings result out of these contexts, like for example faking an injury. Here the ability of play to move within and engage with those structures result in a novel set of outcome directions. Hence in the case of a more structured interaction, the meanings could keep evolving with the progression of the explorations, though not without conflicts. The possibility in a closed system like a game, (especially online or desktop) is the ability of the players to deal or connect with themes that are complex without getting into the murkiness themselves. They are insulated from actual contexts of a situation thus retaining an objective distance yet retaining the possibility to involve with subjective value systems.

But in a more open play system, as it will be more difficult to ascertain the quality of interactions, the emergence of meanings takes a more complex trajectory. Here I once again fall back on the quality of toys as a meaning making system. A rudimentary piece of stick (here representing an open-ended toy) in the hand of a child undergoes multiple transformations; from a sword of a knight, to a vehicle wading through the mud and dirt baffling an observer. At the same time those transformations make perfect sense for the player (child). Such creation of meanings could be extremely spontaneous, and the duration of such associations needn't be very long lasting (as that of the previous situation with a game of chess). One needs some possibilities to capture those meanings before they dissipate. There is a contextual quality to these meanings as well. Flanagan (2013, 192) states this in critical play where the phenomenology of play has a universal quality, the experiencing of play is intrinsically tied to location and culture. Then the challenge of coming up with values and meanings that can be uniformly shared and perceived could be huge.

When bringing together the factors containing play, meaning and Active Ageing, I will have to carefully consider these two types of meaning making processes. The first being a more formal, rigid, with a lasting temporal quality which could be easily stated and shared and the other one quite opposite in all those attributes. In capturing the meaning, the possibility of an elderly person to create and express these two qualities should be encouraged and supported. When looking at distinct cultural groups and possible interaction between them, there should also be a way of transmitting those meanings across the group boundaries. A process of decoding needs to be thought about whereby there is minimal loss of content, as expressed in the High Context and Low Context cultural settings as classified by Hall in chapter 5.

This now leads us into the aspect of Engagement, which in its onset, could be a way in which a group is able to actively connect, mediate and understand a concept. It is influenced by multiple factors, amongst them, more significantly, play. As a concept it is also widely used in the study of games.

Chapter 4: Engagement

4.1 Introduction

According to the Merriam-Webster (n.d.) dictionary, the word *engagé* has been used by the French since the 19th century to represent socially and politically active people. In the aftermath of World War 2, French writers, intellectuals and social activists started using the word as a means of taking an active stand on the prevalent socio-political issues and the representation of their attitude through their art. Jean-Paul Sartre interprets engagement as the “obligatory involvement in the world” (Rendtorff, 2019). When English writers started using this word by 1946 for their own politically relevant writings and art, the word *engagé* started representing any passionate commitment to a cause.

Some of the transitive and intransitive verbal definitions of the word Engage are:

1. To back a cause or aim e.g. engage in the cause of the poor and needy
2. To attract or hold by influence or power e.g. military engagement
3. To interlock; to mesh mechanical parts e.g. gear systems getting engaged
4. To bind to do something e.g. engaged to be married
5. To involve e.g. engage in a project as an actor
6. To participate e.g. engage in a conversation
7. To deal with something, especially at length e.g. engage in diplomatic negotiation

An interesting factor concerning engagement is the ability of two or more individual entities to come together in a common space and function as a unison. This function could be concurrent. Consider the case of two engaging gears. It requires two different parts to come within a certain proximity yet leave a certain gap, also known as a play between them. This gap is critical for the two pieces to rotate relatively and transfer the motion. There is a need to continue with this activity till the end of the intended time or task. There is an inter-exchange where individual boundaries or qualities are respected at the same time, made use of.

In the situation of an interview, for the interviewer and interviewee, there is the possibility for both of them to engage and thus co-create a scenario more effectively through many backs and forths respecting each other's boundaries. This also helps to bring the audience within their scheme thus making it an engaging experience for them as well. In situations where the stakes are high, like in a diplomatic summit, multiple contexts need to be engaged effectively to find a possible solution or a future probability. In politics, a change of power and ideology could be brought about by the application of brute force as in the case of dictatorial regimes. But the same could also happen as a result of conscientious discussions where there is space for opinions as well as dissent, as in the case of democracy. The potential of undergoing a transformation in a conversational mode, though time-consuming, could also be more accommodative and perhaps sustainable in the long run. It may consist of gentle persuasions, constant negotiations, communications, interactions, debates, discussions, attritions, reunions etc. with a bigger picture of a positive change in mind where everyone acts like an engaged change maker.

4.2 Classifications of Engagement

Glas and Pelachaud's (2015) classification of various types of human-agent engagement as well as Bouvier et al. (2014) work on digital games, provides a classification of the concepts concerning engagement as follows:

1.0 Attention: It is considered as one of the vital aspects of engagement which controls the sensorial orientation towards stimuli. It is also defined as the willingness to concentrate (Brown & Cairns, 2004). It is the process that enables and guides the selection of perceptual information and is based on three attributes: target areas, intensity, and duration. Attention has two sources, captured (captured by an external stimuli) and controlled (a voluntary focus on an area of self-interest) where the content plays a critical factor.

2.0 Involvement: This is another vital aspect of engagement. It is a stage which consists of active and intensive processing of a mediated world. Here the process of exchange of information happens both intentionally and voluntarily by the user. There are 3 separate dimensions to involvement as 1. cognitive dimension involving attention, reasoning, and judgement, 2. emotional dimension involving relationship between content, interests, and previous experiences and 3. behavioural dimension involving an interest to act and explore. The six frames of players involvement as identified by Calleja (2007) are:

- a. tactical (elaborate strategies)
- b. performative (controls and movements)
- c. shared (social aspects)
- d. narrative (content)
- e. affective (aesthetics and pleasure)
- f. spatial (virtual world)

3.0 Interest: Interest can be seen as an emotional state. It is based on a participant's goal of receiving and elaborating new and potentially useful knowledge. It is described as the motivation or goal towards initiating and maintaining engagement.

4.0 Flow: It is a state of optimal experience (Csikszentmihalyi, 1990) where a person is completely absorbed in the task and situation with utmost concentration. It works as a balance between the task or challenge at hand and the ability of the person. If the task is too challenging for a given ability, people may feel overwhelmed or when the task is less challenging for the ability, then it may come out as too boring where a person could lose interest. In an optimal flow situation, people might feel in complete control and get involved in the activity without recognising the amount of time passed by.

5.0 Immersion: It is an indicator of the scale of involvement in a game and is felt as an intense experience (Brown & Cairns, 2004). It may result in forgetting the real environment as well as the loss of sense of time. The three components of immersion according to Ermi & Mäyrä (2005, 14) are:

- a. sensory immersion: related to the visual properties of a play
- b. challenge based immersion: focuses on the skills and challenges of a play
- c. imaginative immersion: players getting absorbed by the narrative quality or identify with a character in a game

Here Lombard and Ditton's (1997) concept of Presence is worth mentioning. They have defined it as a perceptual illusion of non-mediation. It is a feeling of being in a virtual environment rather than being in a physical one. It is a combination of place illusion and

plausibility illusion of a situation that is virtually depicted. In short it is the experience of being in a space that is virtual rather than in a physical world, where the actual body is.

Brown and Cairns (2004) define engagement as the lowest level of immersion, before engrossment and total immersion. The process of engagement as defined by O'Brien and Toms (2008, 10) has four stages consisting of point of engagement, engagement, disengagement, and reengagement. They define this (23) as a quality of user experience with technology consisting of challenge, aesthetic and sensory appeal, feedback, novelty, interactivity, perceived control and time, awareness, motivation, interest and affect. The following definition by Chen (Chen et al., 2010, 3) has a lot to do with the way I would have liked to see this concept in the wake of my project work. They defined engagement as a sustained level of involvement caused by capturing a person's interest, holding the majority of a person's attentional resources, and placing the person in an immersive state. Even Jones's (1998, 205-214) definition of Engagement for a computer-based learning environment as a combination of knowledge, interest, and stimuli that promote initial interest and continued use of an environment is of interest in my work.

4.3 Engagement's connection with Play and Active Ageing

Consider the game of football between two rival countries having equally strong and capable players. The build-up for such a game starts way in advance both from the team's as well as the audience's perspective. The team may try to study the abilities as well as weaknesses of their opponents. They train in a special manner to counter the performance of their opponent's star players. They may undergo psychological preparation and motivational discussions along with the core statistical aspects. Consider the same situation from an audience's perspective. There will be many who may adore their team and its star performers (as well as certain players from the opposition). There could be very heated discussions between the audiences regarding their team's performance. And there could be the role of the media who will try to drum up the occurrence of this event as a life and death situation, probably with the audience viewership and hence the advertisement revenue in mind. And on top of all these, if the game is between two sparring neighbouring countries, it can easily assume a political colour with even the top political figures making their presence felt on the day of the event.

Here one could see the scale of this activity. The engagement grows from an individual to a team, to a certain type of audience, to those involving passionate audiences, to media channels and eventually a country. The scope of the activity increases from that of an event, probably showing the skill and beauty of a game by a set of players, to an act of mammoth propaganda involving complex mechanisms and means. It grows from the scale of certain fans of a game to that of a nation. It becomes a space for exhibiting a complex range of relationships; as a fan of an individual player to that of a patriot, thus representing one's nation. The scope shifts from the relatively closed system of a sporting event with its defined boundaries (rules of football) to that of a highly complex play involving extremely porous and flexible boundaries (nationhood, ideology, patriotism). This also calls upon an engagement with the complex topic of identity, which should

somehow find a space in the transition between “my team” to “my nation”. With migration, this clash of identities (an engagement of multiple identities) could be felt within an individual as well. The connections grow from being known to unknown and messy.

Engagement as a term is used in different contexts with varying meaning. From the previous section one could assume an audience engagement in a play scenario (of a football game) which goes on to involve a higher order concept consisting of questions on nationality and identity. Another area of interest is in human interaction, especially in a workplace, called employee engagement. Kahn (1990) was one of the earliest proponents of the idea of personal engagement or disengagement, which he denotes as a behaviour where people bring in or leave out their personal selves during work role performance. In case of engagement, he states that people employ and express themselves physically, cognitively, and emotionally during role performances. When personal uncouple themselves from work roles, it is called personal disengagement. Here people withdraw and defend themselves physically, cognitively, or emotionally during role performances.

The aforementioned ideas of engagement come out of the study of games, which are closed systems. The possibility of defining the scope and the nature of interactions can be predefined in such a system. For example, as a novice one can select a low level of challenge to accommodate for the lack of skill and awareness in playing a particular game and gradually increase them as one becomes more confident. One can select a certain mode to play (single player or as multi player) a game. The possibility of pausing and re-entering a game is well thought through. The ability to customise and even subvert a play system is also accommodated. Such qualities play a role in improving the player's engagement in the game system.

This is different when players interact with an open-ended play system like toys. A character toy, like a Spiderman, is a semi open ended system. There are already established character qualities that the player gets to interact with. Yet, there are many qualities undefined as well. These interactions between the known and unknown act as opportunities of exploration and involvement. When a child constructs his own toy, it becomes a lot more interesting and at the same time complex. The concept and details arise out of the interaction between the child and the material may lead to play behaviours that are deep, highly engaging and at the same time vague for the third person. A shoe might become an aeroplane, or a piece of torn packaging cover becomes a doll house. Here the child has reinterpreted the actual product/material semantics in her own manner. An outsider to such a play system might get puzzled and won't be able to engage with such a play until and unless the child invites them into this play system. Till the time the meaning of context is shared with the others, it gets difficult for others to understand and involve into this play system.

Looking into the life of elderly they may enter into activities, personal or shared, with varying degrees of engagement. When the communicative qualities of a context become clear and the involved person(s) is able to derive their own meanings out of it, the interaction is

alive, and involvement gets deeper. In situations of deeper immersion like engrossment and total immersion there is a stronger innate urge to understand and overcome the challenges at hand. In case of a “normal” engagement (discounting engrossment or total immersion), the initiative to start, continue and even complete a situation is of a higher level than in the case of a common/ordinary situation. For activities involving more participants, the ability to exchange, correlate, deliberate and finalise (reach towards a conclusion) gets a higher chance of success than in a normal situation due to the possibilities offered by the concepts concerning engagement. Finding a solution becomes more an internally driven quality and needs little external push and even the so called “failures” are considered as unfinished business and a possible new beginning.

Hence the overall relationship between engagement, Active Ageing and Playfulness in the context of my project could be understood from the Fig. 4.1. The Active Ageing could make use of the Transformative (as a mediator) capacities of Playfulness which uses its semi or open ended creation of play structures to create a shared, meaningful and more enhanced means of achieving engagement. Through Playfulness, the discursive and communicative space required to conduct discussions, debates, exchanges and learning achieves a more dynamic and inclusive Playground like quality. This quality is one of the critical aspects that eventually results in the creation of a Lego based interview technique and Innernetz App (discussed in the later chapters). At the same time, engagement could be considered as a passionate commitment to achieve an enhanced (better) Active Ageing for a person as well as the society. Here again the engagement provides a deep and sustained level of involvement in the creation of the above mentioned discursive and communicative space required to create and sustain exchanges which further informs Active Ageing.

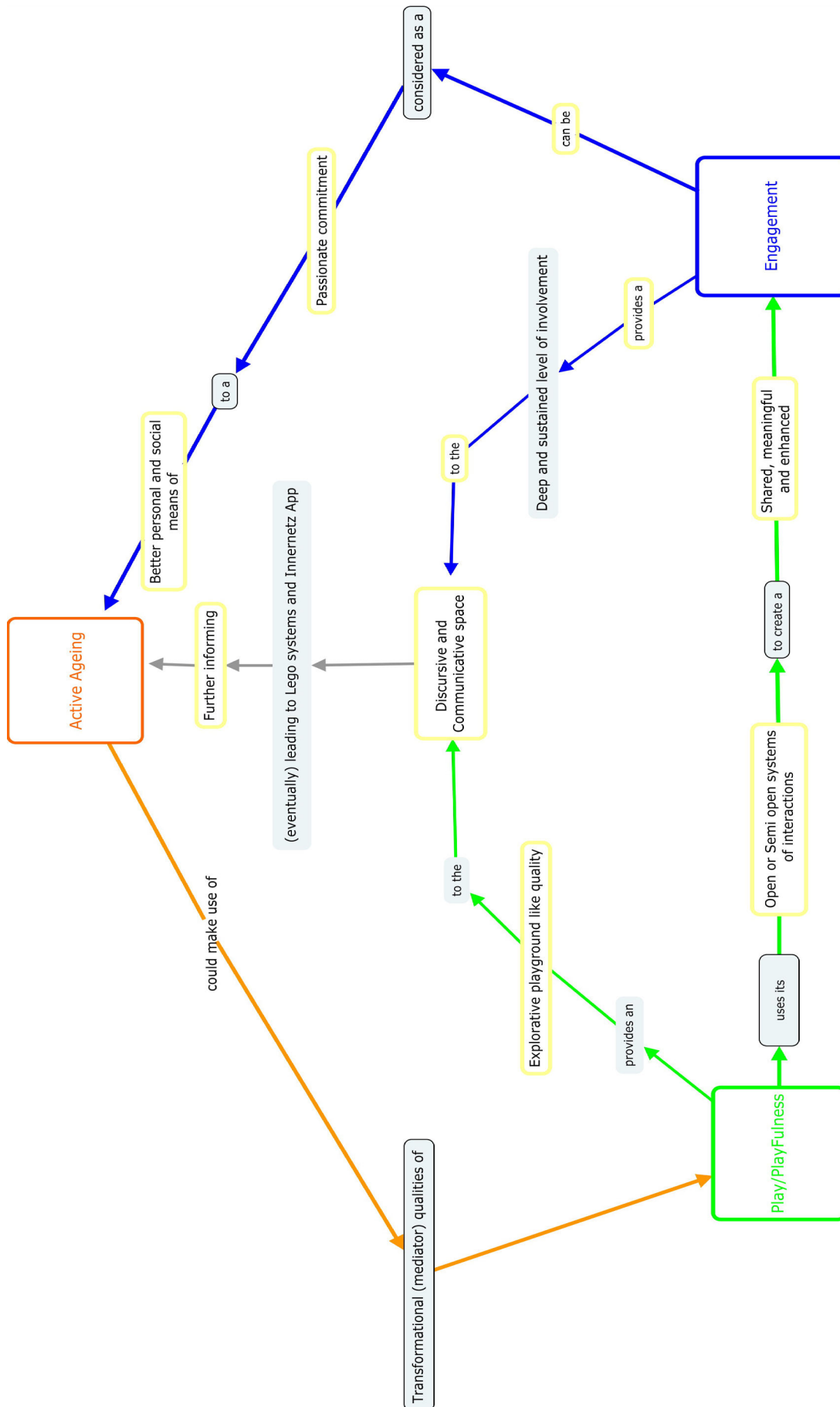


Fig. 4.1 Relationship connecting engagement, Play, and Active Ageing in the context of this project.

Chapter 5: Intercultural design

5.1 Culture and Interculturality

According to Hofstede et al. (2010, 6), a culture stands for “the collective programming of the mind which distinguishes the members of one group or category of people from another”. Hence the presence of a shared but very distinctive set of values held by the inhabitants of one society with its own patterns of behaviour and artefacts is a quality that culture externalises. The collective programming in Hofstede’s definition looks at culture as something that occupies the space between a non-programmable human nature and the individual’s personality. According to Hall (1983), a culture sets its limits for its inhabitants, mostly in an invisible manner, through their thoughts. Hence for him, it is a subconscious phenomenon. The culture dictates where to draw those arbitrary lines separating one from another. Upon learning and internalising these limits by the inhabitants, it starts getting treated as real. Spencer-Oatey (2000, 4) provided an interpretive angle in understanding the culture. According to her, Culture is a fuzzy set of attitudes, beliefs, behavioural norms, and basic assumptions and values that are shared by a group of people. It influences each member’s behaviour and his/her *interpretations of the “meaning”* of other people’s behaviour. Here the culture plays a dual role, one as an influencing factor for behaviours and another as an interpreting one.

In order to represent the system of cultures, Hofstede’s onion model (Hofstede, 2001, 9-11) is worth mentioning here. It consists of a core containing the values layer. This is the *hidden layer* and indicates why a certain state of affairs is preferred over another by a population. It influences the behaviour of a population giving rise to certain defined ways of perception of things and could be acquired at a young age. The following 3 become the *visible layers* of a culture.

1. *Rituals*: indicates the set of collective activities that are actually superfluous to the achievement of desired goals but are considered socially necessary within a culture. This can be in the form of extending greetings to one another.
2. *Heroes*: Heroes are persons, dead or alive, real, or fictitious, who possess characteristics that are highly regarded in a culture; they therefore serve as models of behaviour.
3. *Symbols*: Symbols are words, gestures, pictures, or objects that have a certain meaning, which is only recognized as such by those people who belong to the same culture. New symbols are created leading to the cessation of the older ones and symbols are something which gets copied very easily across cultures.

The outer 3 layers of this model are subsumed by what he named as practices. This is observable for someone from outside, but the actual meaning of them is only available to those based inside the cultures.

According to Spencer-Oatey (2000), the inner core of a culture consists of values and basic assumptions that people have. This separation helps to account for the change in beliefs without a drastic change in values for a population. This is then covered with a more elementary layer of beliefs, conventions, and attitudes. This layer is covered by systems

and institutions. Another layer, which is split into two, consisting of artefacts and products covers one half of this split and rituals and behaviours covers the other. One can locate culture as something situated between human nature on the one hand and the individual personality on the other. Culture is not something one could inherit nor is it genetic but is learned. It is individual personality that provides modifications to culture resultant behaviour. Although all members of a group or society share their culture, an individual's personality is able to provide unique expressions of culture-resultant behaviour.

One should also be mindful regarding the complexities in classifying cultures. If one considers national boundaries, e.g. German or Indian as definite cultural groups exhibiting certain cultural qualities, there also exhibit larger classifications like European or Asian cultural groups. They consist of groups which are extremely diverse in their expressions, stills being put together to represent a unique quality (European or Asian). At the same time, there are also sub-cultures with their own unique qualities and expressions as in the case of Schwaben (south German) or Malayali (people belonging to the south Indian state of Kerala). One can find such finer subdivisions right to the village levels depending on accents in a language, food habits etc. But one has to exhibit great care and sensitivity while generalising cultures. The broader definitions of a culture can be generic and work for a cultural group as a whole, it need not represent the qualities of an individual who exists within this cultural group. This could be an "ecological fallacy" way of looking at culture and was highlighted by Bond (2002) and even Hofstede himself. According to Hofstede, cultural tendencies could be stated as a central tendency, but not to be taken down to an individual level.

5.2 Intercultural communication

In order to understand communication between cultures, Hall's two classifications as described by Dahl (2004, 11) could be of great interest here. First is regarding the way information is transmitted inside the cultures and the second is to do with the way cultures are able to structure their times known as polychronic versus monochronic time orientation. For the first, Hall classified cultures as High Context (HC), Low Context (LC) and middle context ones. In HC situations, most of the pre-programmed information is there in the receiver and in the setting. The transmitted message carries only minimal information. And in the LC situations, it is the reverse. Here most of the information is in the transmitted message in order to compensate for what is missing in the context. This has implications both in interpersonal as well as mass communication situations.

In the second concept *Monochronic* time denotes the handling of one thing at a time and *Polychronic* denotes handling multiple tasks in a given time. Some of the other qualities are also worth mentioning here. In case of monochronic time, interpersonal relation is subordinate to the present schedule and for polychronic time, the schedule is subordinate to interpersonal relationships. For monochronic, breaks are sacrosanct and regardless of personal ties whereas for polychronic, breaks and personal time are subordinate to personal ties. In terms of activity coordination, in monochronic time the schedule coordinates activities and appointment time is rigid. And for polychronic, the interpersonal relationship coordinates activities and appointment time is treated as flexible.

In monochronic, the temporality is treated as inflexible, and time is a tangible quality, but for polychronic structures, time is flexible and considered more fluid.

Another concept worth referring to is Hofstede's (2010, 28) 5 types of cultural dimensions.

1.0 Power distance: It gives an indication about the perceived degree of inequality in a society. A society where a person with power gets more respect than others is a high-power distance society. In a low power distance society, it emphasises on an equal treatment for everyone. High power distance societies exhibit a tendency to give extra privileges to the powerful and the governance is in the form of autocratic or oligarchic nature and the low power distance governance gives equal rights to everyone and there is possible participation of people and their opinions.

2.0 Collectivism vs Individualism: An indication about how far a society acknowledges the group qualities, its obligations and dependence. An individual society gives more emphasis on the creation and acquisition of personal goals whereas the group's collective goals and wellbeing is emphasised on the other. Where individualism tries to look after the interest of oneself and the immediate family, collectivism gives emphasis to strong cohesive groups from birth onwards. Here participation in a group provides the individual with lifelong safety and security in exchange for unquestioned loyalty.

3.0 Femininity vs Masculinity: Societies where social gender roles are clear and distinct are masculine (men are supposed to be assertive, tough and focus on material success) and feminine when those roles tend to be more fluid and overlap one another (men and women are supposed to be modest, tender and focus on quality of life).

4.0 Uncertainty avoidance: This is an indication of the tolerance of uncertainties and ambiguities. This gives an idea about how uncertain situations are handled in a society. A high uncertainty avoidance quality means lower tolerance for uncertainty, ambiguity, and risks. Those systems have stricter rules and regulations to lower the uncertainty. In low uncertainty avoidance systems, there is more openness to uncertainties resulting in more relaxed rules and regulations.

5.0 Long term vs short term orientation: It is an indicator of how a society views its time horizon. A long-term orientation focuses on the future. There is a tendency to delay short term success and gratifications through persistence, perseverance, and long-term growth. There is an ordering of relationships by status and observing this order, thrift, and having a sense of shame, whereas short-term orientation is characterised by focus on the near future. It involves delivering short-term success or gratification. It places a stronger emphasis on the present than the future. Here personal steadiness and stability, protecting one's "face", respect for tradition and reciprocation of greetings, favours, and gifts are favoured.

As a part of my study, two distinct cultural groups, one from Biberach in the South of Germany and another from Thalayolaparambu in Kerala in the South of India were assessed. Some of the above mentioned attributes I could experience during the course of planning for my interactions and later during the interviews. This aspect of time (mono or poly chronic) was something I experienced very clearly during my interaction between the cultures. In the case of interviewing people in Biberach, the predefined appointment

time was sacrosanct and any deviation to the schedule was clearly conveyed to me. There was a clear expression of an apology due to the inconvenience caused due to shifting of a schedule. During a discussion or an interview, an obstruction to the flow of the discussion was clearly avoided, e.g., an unexpected phone call was put down or by keeping the mobile phone in a do not disturb mode. The chances of an important phone call were prior informed to me in such cases. So, there was a concentrated effort to focus on the task at hand, that too within a given time period. This was at times causing some discomfort as well. Due to the semi open nature of my interviews, there was difficulty in sticking to the time durations. Hence after my initial experiences, I used to ask for more time than required or intimate the participants to be more flexible with their overall appointments.

My experiences of interviewing in Thalayolaparambu were to a greater extent a reverse of what I experienced in Biberach. Even though prior appointments were sought in all the cases, I had to wait for a long time before some of the participants arrived at the place of interview. There was constant obstruction through an unexpected visitor, or a telephone call etc. influencing the flow. The possibility of finding another schedule was easier than in Biberach but not effective in the true sense due to the ad hoc nature of scheduling resulting in multiple visits and relatively long waiting times. The need for prior preparation and detailing regarding the matter to be conveyed was not felt as a necessity as much as in Biberach. There were many occasions where the interviews in Thalayolaparambu started after 5 pm and went on till late evening. These were not preplanned, yet accommodated by myself, the participants and the families involved as a way of getting on with the process and bringing it into a conclusion. During the *Innernetz* stage, which is the experimental stage of my project, this aspect of the polychronic nature of time again became an issue. The promptness of responding to a query from a participant in Biberach was opposite to that of a more laid back approach I encountered in Thalayolaparambu. Here I had to send reminders to obtain responses from some participants. Even one person dropped out of this stage of the project in Thalayolaparambu due to his inability in managing his schedules.

During the course of interview in Thalayolaparambu, the effort to locate oneself through the family name was felt to be stronger than in Biberach. On one hand this might have provided a sense of familiarity and hence a security for the participants, but it also could be interpreted as a way of presenting (or even not disclosing) the information based on the social hierarchy. The local dynamics of caste and religious undercurrents does exist in the society in and around Thalayolaparambu and one had to clearly account for the same. The familiarity of myself through my extended family members or acquaintances was to be considered as well. The uncertainty of personal information falling into wrong hands might have been felt more severely in Thalayolaparambu than in Biberach. My profile of an anonymous Indian immigrant with few friends or acquaintances in Biberach was providing greater comfort for a few of the participants to talk about certain aspects of their lives. This they revealed to me during the course of the interview as off the record conversations as well. A participant in Biberach, whom I was familiar with due to the proximity of his residence to mine, suddenly dropped out of the project as he felt he was providing

me with some amount of his personal details. Once he clearly stated to me about this discomfort, we mutually decided to put an end to any further discussion. The need to be clear about the objectives and the expectations from the process was felt more strongly while interacting in Biberach than in Thalayolaparambu. The need to have materials to read prior to a meeting was a requirement in Biberach than in Thalayolaparambu. The need to be clear and avoid unwanted ambiguity was strongly felt in Biberach than in the other location.

Certain aspects of femininity vs masculinity can be felt in the discussions in both the cultures. Even though there is a certain level of gender equity in both the cultures, one could find clear role definitions, especially within this age group. The expectation of women to be the caregiver, household organiser etc. was felt in both places probably more prominent in Thalayolaparambu than in Biberach. Here again, in order to bring out individual perspectives from a collective one (caste, community, family) more emphasis was felt in Thalayolaparambu than in Biberach. This became evident while people were discussing their younger days with many individual stories containing a greater and sometimes defining component of life altering compromises. Participants made compromises on their educations, interests, and inclinations to fit in and become the part of a broader narrative consisting of family and society. This was quite opposite to emphasising an individual and their interest centric narrative found in Biberach.

Being aware of some of these above-mentioned inter-cultural perspectives helped me in planning a strategy for information collection as well as implementing the final experiment.

5.3 Meaningful social interaction

Social interactions represent one of the building blocks of a society and it is the interaction between individuals in a society. Through basic exchanges and interactions, inter-human relationships help the residents to have an idea about the other occupants of the same society. This can happen for people who are residing very near to one another or even far apart with varying degrees of impacts and influences. By pursuing a meaningful social interaction, the society learns to accommodate varying opinions by accepting diversity, improving the quality of life, and increasing its resilience. It helps create an awareness about other social groups as well. Department for Communities and Local Government, UK (2009, 9) has mapped certain qualities for having a meaningful interaction as follows:

1.0 A positive interaction within the group improves the community relationships. And any unpleasantness needs to be discussed and resolved for the groups to function as a unit.

2.0 The interaction needs to go beyond a superficial level and has to be sustained. A deeper exchange of personal interactions and exchanges, discussions about each other's differences and identities, sharing common goals or interests are necessary in sustaining such interactions on a long-term basis.

3.0 There is a need to accommodate different forms of interactions. The four different forms are identified as a) *grounding interactions*; happening between people who share a common history leading to consolidation of one's values and identities, b) *banal interactions*; superficial, hai-hello relationships that people share between other occupants of a community, c) *opportunity interactions*; interactions that happens with people with whom there could be certain potential benefits, e.g. self-help groups, d) *growth interactions*; happens with people with whom one feels curious and helps to broaden one's identity and values. It's a more potent sort of interaction where people learn to see oneself and others differently and find new commonalities.

4.0 An interaction cannot be forced between people but can happen through careful facilitation and promotion leading to positive interactions.

Overall, a meaningful interaction can have the benefits of developing a sense of purpose, providing assistance to growth and development, orienting oneself to the overall life outcomes, reduce fear, improve inter connections between ages etc. Hence one can say that meaningful interactions are those where people believe that they are emotional, informational or provide some tangible benefits for self or for the life of their interacting partners or their relationships. Ramírez Galleguillos et al. (2022) developed design strategies to deal with aspects of discrimination, isolation, violence etc. arising as a result of migration and refugee crisis. They named this as Intercultural Meaningful Social Interaction (IMSI) and devised a set of cards for instilling the qualities of connectedness, confidence and security, reshaping one's own identities, belongings and acceptance, mutual feelings, thoughts and exposition. Some of the features/strategies identified (2022) for the facilitation of IMSI through design interventions could be of interest for my work, even though in a differing context. Those are:

1.0 *Facilitating empathy*: strategy of finding information (experiences, feelings, reflections, goals etc.) about people from various social, economic, or cultural backgrounds as if it was one's own.

2.0 *Syncing feeling*: here different people are made to feel the same thing at the same time.

3.0 *Nudging a positive perspective*: means of constructing a positive mindset and perspectives to people and things that one considers as different.

4.0 *Encouraging cross learning*: creating means for cultural exchanges by learning something new about a given culture and beliefs.

5.0 *Identifying similarities*: creating strategies to show that people are interconnected through obvious or unexpected similarities.

Pratt's (1991) concept of contact zones refers to social spaces where diverse cultural groups meet and interact, sometimes in conflict often resulting in exchange of ideas, knowledge and experiences. Those interactions happen to challenge the conventional dynamics of power thus resulting in newer forms of understanding and collaboration. Due to the presence of the diversities of perspectives, such spaces act as points of complex negotiations or transformations resulting in more meaningful social interaction for the various stakeholders. This is a concept which has parallels to the concept of *Innernetz* that I will be exploring in the later chapter of this project.

Phase 2. Design Research

Chapter 6: Preliminary orientations in planning for the methods

6.1 Specificity of the contexts of enquiry

Even though the study is concentrated on two specific locations, i.e., Thalayolaparambu in Kerala, south of India and Biberach an der Riss in the south of Germany, in the following document the data will be represented as Kerala and Baden Wuerttemberg indicating the respective (federal) states where these spaces are located. This was due to the difficulty in obtaining local data from Thalayolaparambu when compared to Biberach. In the case of Baden Wuerttemberg, the values are similar to the average value for Germany. Even though there is a possibility to find statistical data corresponding to ageing from Biberach, such data is extremely difficult to come by for Thalayolaparambu influencing the processing and evaluation. Another aspect is that the study is concentrated on the lives of middle-income groups in both countries. This was also required as the definition of poverty in developing (existential) and developed (relative) contexts is very different.

6.2 The initial orientation

Prior to the initiation of a formal research on active ageing, I was curious about the ways in which elderly people were managing their lives. The casual interactions and exchanges about a life after retirement or life above 60 years that I had with my relatives, neighbours and some of the elderly colleagues were the initial point of entrance into this theme. I initiated a couple of short projects in 2012. In one such project (2 weeks duration) I along with an Apparel Designer, Shweta Dhariwal, conducted an elective workshop with students of National Institute of Design in Ahmedabad, Gujarat, a city in the north western part of India (where I was also residing and working at that time). This involved interaction with elderly people who were residing in their own houses, elderly people who were related to the students (grandparents, relatives, or contacts etc), people residing in an elderly home managed by the organisation HelpAge India and an old age home for the destitutes run by a charity in the city etc. This project also involved the capabilities of handicrafts artisans who lived in the city of Ahmedabad. After initial observations and awareness creating sessions by ageing experts and designers, they were trained with the artisans to learn to handle stitching and patchwork techniques (fig. 6.1). The students created short narratives out of the lives of the people with whom they interacted. They also constructed handcrafted products based on the story they captured combining their craft/design skills and essence of the situation they studied. The idea of involving artisans was initiated through a co-sharing model where the design students got to learn certain traditional skills of the artisans while the artisans learned to make use of stories of ageing and the aged as a new source of inspiration to improve their product range and offering.



Fig. 6.1 Students learning from the artisans the techniques of stitching and patchwork on clothes.

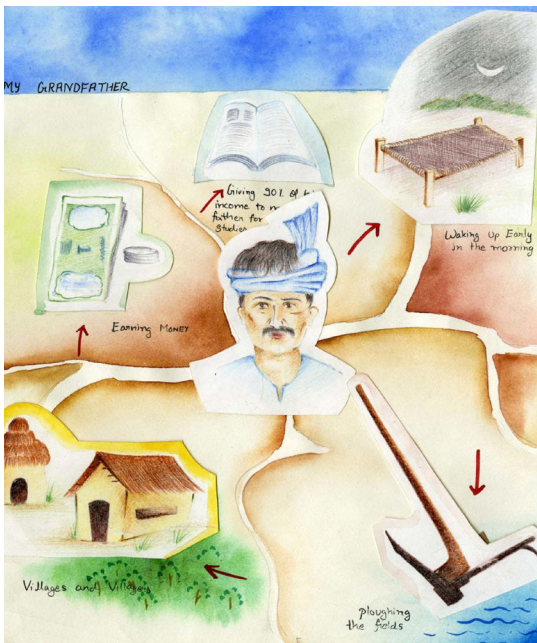


Fig. 6.2 Here Vivek, a design student, created a storyboard (the image on the left) capturing the essence of the conversation he had with his grandfather. He handcrafted a head scarf (the image on the right) from patchwork technique resembling the land on which his grandfather worked hard to provide for his family. This head scarf also signifies honour and dignity for the wearer in the part of India from where Vivek comes from, thus accentuating its contextual relevance.

The idea was to look at possibilities for design, especially Industrial Design, to look beyond the classical problem identification followed by product intervention methodology. Here stories formed the basic premises to enter into the lives of elderly. Creation of awareness about the lives of elderly through interaction, critical reflection and development of an artefact which captures and brings together certain interesting aspects about the lives of elderly was done as in fig. 6.2. Due to my personal situation, I also had the opportunity to catch certain glimpses regarding the lives of elderly in two different cultural systems, i.e. Kerala and Germany. My training and later work in the area of play (through my engagement with Toy and Game Design at NID) as well as my interest and work in the area of design for capacity building of communities also played a role in framing the research objectives.

6.3 Arriving at a methodology for enquiry

Designing for ageing happens to be a vast area with possibilities of intervention in multiple avenues. There are opportunities in the area of spaces, products, accessories, clothing, user interaction, interfaces, media, security, health, personal care, sports, recreation, tours and travels etc. There are also areas which might not have received my attention at the beginning of the project, but gained a lot of importance during the course of it. When I initiated the preliminary thoughts of my work, which was towards the end of 2015, areas like information technology related services with elderly as active users were less prominent. This changed a lot during the course of my project. Especially in the case of India, after the COVID 19 crises there was a spurt of activities related to digital online transaction procedures as well as use of social media for communication. On one hand, it has resulted in easing of payment procedures by using smartphone transactions as preferred mode (TOI, 2023) but on the other hand, it also increased the risk of cyber frauds and thefts (Chaturvedi, 2023) causing a lot of insecurity with the elderly users.

During the initial stages of my research, my inclination was to continue with some of those ideas I've been exploring prior to me starting my PhD, i.e. combining the aspects of handcrafting with elderly, design intervention, product development for a user segment, co designing and value creation. It even resulted in the creation of a few interesting product ideas and prototypes for product accessories (fig. 6.3 & 6.4), products targeting the young mothers and kindergartens (fig. 6.5 & 6.6) etc. This was done by working together with a knitting group in Biberach known as Strickkreis St. Martin and the stitching group in St. Josef, Birkendorf. Both groups consist of women, who meet once or twice a week, for half a day doing these activities. I also made efforts to engage with a group of elderly inhabitants of an old age home in Biberach by conducting creativity workshops.



Fig. 6.3 and 6.4: Prototype of product accessories by the knitting group, St. Martin in Biberach.

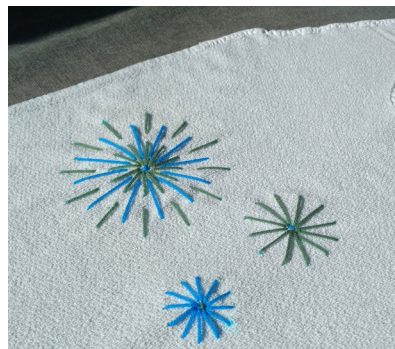
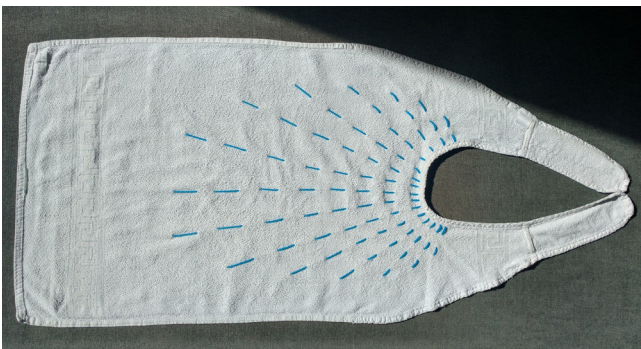


Fig. 6.5 and 6.6: Product prototype of Bibs for small children, especially in kindergarten, with the possibility for customisable design.

At the same time, I was also exploring opportunities for intercultural interactions that could combine the abilities of elderly in both Biberach and Kerala. I was interested to have perspectives of both men and women in my project and all of the stitching, knitting activities were done by women, most of them between 70 and 80 years old. I also met with elderly volunteers who were providing assistance for repairing household goods by being a part of Reparatur Cafe run by a local organisation and assisted by the local municipality and this was predominantly run by men. I also established contacts with certain church-based organisations who were working with the refugees. My understanding of

local realities was severely inhibited by my lack of comfort with the German language, especially the local dialect. The awareness of the English language within this age group was very low. This made it difficult to make much headway with interviews, even though I had established certain very good contacts within the local community of the elderly. This started easing by the beginning of 2019 when I had the confidence and ability to converse in German.

Even though my family in Kerala lives in Thalayolaparambu, I was unfamiliar with the local realities due to my studies and work away from this space for over 15 years. I was not able to find any initiatives in and around Thalayolaparambu which used materials and activity as a means of informing about Active Ageing. There were limited secondary resources available regarding the context of ageing, especially active ageing and almost no information linking design and Active Ageing from Kerala. The available work had strong quantitative orientation which was not giving deeper insights into the social contexts and its intricate relationships.

All these resulted in a baffling situation where I couldn't initiate my primary research in Kerala (where I had the familiarity of the space and culture) due to my German classes in Biberach at the same time not able to make much progress in Biberach due to my lack of German knowledge. I decided to stay back in Biberach and pursue my language classes at the same time continue with my local interactions which I hoped could give me a better idea about the local cultural contexts and provide me with some local contacts for my interviews.

6.4 Research Through Design as a design research approach

Despite some of the above mentioned functional limitations, I was convinced of pursuing a Research Through Design (RTD) (Jonas, 2007), (Zimmerman et al., 2010), (Jonas, 2014) based approach for my research work. This was due to my interest in working on a project having a real-life implication. One part of this choice could also be a result of my previous exposure with real life projects. But it could also be an extension of the first, as an opportunity to see first-hand the creation of a theoretical base (preferably a substantive one), from a real-life situation. RTD was offering me this opportunity to look at this complex interjunction of Active Ageing, Play, Multiculturalism and Social Transformation Design with my active involvement as a researcher. The ability to do project building, knowledge (re) search, participant interaction, context definition, theoretical evolution, redefining the project objectives, experimentation by being an active embedded partner in a process that is also context specific are potentials offered by a RTD method.

Another possibility with RTD is its ability to accommodate the making or creation of something new (Jonas, 2014, 26), called an *abductive phase* in the evolution of knowledge. This happens apart from the *inductive (heuristic) phase* of purposeful experimental learning to hypothesis, theory creation and projections about how the world functions as well as *deductive (logical) phase* consisting of actions and interventions, derived from insights, hypotheses, or theories, leading to new experiences. Jonas (2007,13) defines

the RTD process of knowledge creation consisting of three distinct qualities in the study of a specific system under observation. The first one is the *Analysis* process consisting of a study of the causes of the current problems and their future evolution (inductive). The second denotes the *Projection*, which defines the values and norms of the process, including (design) decisions for solving this problem (abductive) and the third is the *Synthesis* part which deals with the potential transformation or improvements of the studied problem (deductive). My project which asks the following 3 research questions

1. How is the concept of Active Ageing (WHO, 2002) perceived by a German and a Keralite, who is 60 years and above?

2. How can Transformation Design approaches using Playfulness as a methodological tool influence the inquiry of Active Ageing?

3. How can a self-sustaining methodology on Active Ageing be derived from the study, influencing the future policy on ageing? has an objective of understanding the areas of Active Ageing within the cultural context, to devise means of understanding this area with its context specificity with the ultimate intention of creation of knowledge which could be made available while designing for a transformation condition (preferably into the next best possible ones).

Chapter 7: Designing the Research

7.1 Redefining the project boundaries

But then, what am I supposed to be studying in the first place? The design brief that I set out to work for my PhD project **"Designing for Active Ageing using intercultural influences: examining the role of Playfulness in Transformation Design"** underwent a couple of transformations in the meantime based on my secondary research and initial observations. This resulted in redefining the age group of the study. The age limits were set mostly to accommodate the young-old category, i.e. elderly between 60 and 74 years of age (Cohen-Mansfield et al., 2013). Setting of the lower limit of 60 years was based on the WHO's definition of when old age begins, as explained in the chapter on ageing. The upper limit was a lot more complex to set. Even though an actively engaging human being need not be limited within a specific age range, the onset of health-related issues were observed more prominent in the upper ranges of this scale, mostly above 70 years and above. There are certain aspects of active involvement where health started playing a role in limiting them or even curtailing them. For example, in the interview, a 74-year-old German participant expresses his extreme fear of being bedridden and dependent after he went through a medical situation requiring hospitalisation and a corrective surgery. Another aspect was the aspect of availability of medical care. In Germany, there is a mandatory insurance cover applicable for all the inhabitants. This is not like the situation in Kerala where only a few people are covered by medical insurance thus incurring large financial expenses of medical treatments either by the individual or their families. The influence of such a factor on the perception of safety and security (a matter of my research study), especially on people above 75 years was assumed to be more complex. It was also decided to limit the group to be studied to incorporate people in the middle-income brackets in both the countries. The lack of availability of social safety nets in Kerala when compared to Germany, the presence of communal, regional (in terms of specific location) and other societal undercurrents could have added a higher degree of complexity to the data and probably demanded a different mode of analysis as well. Despite these assigned limits, I conducted interviews with people who were slightly beyond this range.

7.2 Identifying the critical project stages

At the onset of this project there existed four critical areas; Active Ageing, Transformation Design, Play/Playfulness and Intercultural influences. These areas have been dealt with in detail in the previous section/phase. The other area which evolved over the time with primary research and the initial part of secondary research is that of Engagement. The underlying assumption with the idea of interculturality was that it could provide a better way of seeing the area of design for Active Ageing from the strengths of individual cultural standpoints, diversity, uniqueness (of a culture), shareability, relativity etc. The possibility to be aware about certain cultural limitations (class or gender related) as a potential area of betterment is another aspect. Playfulness was also considered as a means through which this intercultural interaction is initiated and sustained. The possible

potential of playfulness as a “capable provoker” or as a “critical instigator” has been well documented (Flanagan, M. (2013), (Mews, 2022). Some contemporary forms like stand-up comedy (Meyers, n.d.) and traditional art forms like Carnivals or Chakyar Koothu (Carnival in Mainz Germany, n.d.), (Chakyar Koothu, n.d.) have been doing this act of “questioning the work as usual” attitude through different modes, prominent amongst them is by employing the power of playfulness. My own exposure with ageing and play, as described in the previous chapters, gave me the confidence and direction to frame the objective of my inquiry by incorporating Playfulness as a critical component of betterment of a given situation. My readings and exposures (prior as well as ongoing) about Playfulness and its compatibility with ageing, i.e. my initial intuitions and reflections about the topic, became the source that led to the first stage of the project.

As explained in the earlier chapter on ageing, the potential that the UN definition of Active Ageing afforded is to look at the life of elderly human beings and their interactions, not only in their own immediate personal environment, but also extending into their social ones. There is an acceptance of the abilities and inclinations of the aged in trying to be active and not propose a top-down approach of prescribed activities and expectations. Hence, the context of ageing, whether it be personal or associated, gets its prominence. The inquiry needs to support assessment of both visible as well as non-visible ways of activities as not all of those could be externalised every time. As one may find from the life course perspective of ageing studies (explained in the preceding chapter), temporality plays a significant role in the shaping of contemporary life as well as orienting to the future. There needs to be a way to express the multitude of meanings of activities and the possible interlinkages, if any. This is something expected out of a play-based method, considering the power of play in creating narratives that are player led, yet capable of involving the onlooker/bystander, here the enquirer, i.e. myself and also the readers. This happens to be one of the primary expectations that the process of enquiry should afford. Hence a way to create a means of communication that brings to light this visible/non-visible world of activities of a participant becomes the second stage of the project.

The third stage of this process deals with devising a process or methodology that could make clear the understanding or learning resulting out of the different participants’ version of an active self. This calls upon the use of a methodology, here Grounded Theory, that is capable of preserving the voices of the participants yet giving the enquirer an opportunity to derive meanings and directions from the study. It should be capable of using participants’ individualistic perspectives to create a more holistic concept or in the words of Grounded Theorists, a substantive theory, that could explain the findings for the context under study. This also provides an opportunity to relook and redefine the project objectives or the questions of the study, if required.

The above information becomes the basis for the next stage. i.e. the fourth one. This will lead to the designing of an experimental setup, which is play based and (preferably) involving the earlier participants. In this project this will be called Innernetz, an Android based smartphone App which the participants can use on their individual smartphones.

One of the objectives of this experiment is to understand the significance of this substantive concept in an individual's contemporary actively aged life and living as well as offering the capability to have a conscious extrapolation into a future aged self. Another objective will be to look at the communicative potentials of ageing, where sharing and coevolving between the aged becomes the means for converting the existing situation of aged into the next best one, even if it is incremental in nature. This is the opportunity to see for each other the possibilities/options lying ahead which the participants, if willing, could make use of in initiating this change. The need to place these change possibilities in the participants' immediate vicinity, as a local laboratory space for learning, explorations and even failures, "a living learning lab " could be an ideal outcome out of this stage. Also, an opportunity to document and share some of those initial orientations, planning or course corrections could be an added advantage to the health and sustenance of such an organic lab. At the onset, this could positively influence the local society and move slowly outwards eventually mingling with other similar learning labs to form the cumulative change one intends to make. The following fig. 7.1 provides a cumulative idea about the brief timeline of this project together with certain critical initiatives and milestones.



Stage 2

End of March 2020 - Returned to Germany before international travel restrictions could start effect due to COVID outbreak. Analysis of the interview data and coming up with a better strategy of interviewing.

October 2020 - *Designing for Sustenance; Locating sustenance at the intersection of Emotion, Ecology and Community based initiatives, Presentation (online), Industrial Design Centre, IIT Mumbai, India.*

November 2020 - *Conducted course (online) Games, Play and Interaction for Architectural students of Avani Institute of Design, Calicut, India.*

Stage 3

June 2021 - Restarted interviews in Germany in between COVID restrictions. Coding of data based on Charmaz' Grounded Theory.

December 2021 - Restarted interviews in Kerala in between COVID restrictions. Using narratives as a way of informing about data collection and analysis

Mid of February 2022 - Returned to Germany after completing Kerala stage of interviews. as well as remaining coding of data.

Mid of June 2022 - Evolution of the concept of Engagement .Redefining project brief incorporating Engagement as a node connecting the method and the aspects of enquiry. More secondary research on Engagement.

November 2022 - Arriving at a systemic representation of Engagement and evolution of the concept of Innernetz.

Stage 4

Mid of February 2023 - Participation in the NORDES Doctoral Consortium lasting for 3 months (intermittent online meetings) resulting in a short paper titled *(Social) Transformation Design And Playfulness; A case for a probable synergy ?* along with reviewing two short papers and completing a complimentary representation. Finalising the decision of developing Innernetz as an Android based App whose initial prototype was used in the complimentary representation.

April 2023 - Submitted a chapter for the book *Handbook of Aging, Health and Public Policy* to be published by Springer titled *Design for Active Ageing through play-based user research: A synergy of two worlds.*

End of June 2023 - Programming of a more stable version of the prototype App Innernetz is completed. Discussion with prospective participants in Biberach and Thalayolaparambu regarding their willing to take part in the experimentation involving the Innernetz App. This created the space for exploring *Play as an Engaging system.*

Mid of July 2023 - Flying to Kerala to conduct the Innernetz App based experimentation. involving simultaneous interaction of participants (6 numbers) from Biberach and Thalayolaparambu.

Stage

4

Finding replacements for two participants (both from Biberach) who had to withdraw due to certain personal emergencies.

Mid of October 2023 - Returning back to Germany after completing the experiment using Innernetz App, Analysis of the data and coming up with opportunities (short, middle and long term) of intervention resulted over the next couple of months along with the beginning of the work on the thesis document.

Fig. 7.1: Critical milestones of the project..

7.3 Contexts of emancipation

A critical factor in the creation of this experimental project is the assumption that the elderly themselves are better guides, agents, and mediators in assessing their lives and initiating changes than an external expert. Some of those concerns are visible and are easily made evident, like voicing concerns about lack of accessible environment. But some others are subtle and ingrained in the social fabric that it requires a deeper social transformation to overcome the same, e.g., ageism. It is primarily against such entrenched concepts like ageism that elderly have to fight and take a stand against. Perhaps, this in turn could pave the way for tackling those visible concerns a lot easier. Hence, emancipation (from the current situation) becomes a primary objective and direction this project should seek to achieve. One way of doing this is by laying it bare for the participants and other stakeholders the processes and expectations I have out of this work and openly and critically listening to their side of the story or critics. But it also has to consider the other relevant contexts where emancipatory thinking could transform the active ageing lives of the elderly.

Even though ageing is universal and a lifelong phenomenon, it has to constantly struggle against various agencies, agents, concepts, and perspectives. This may lead to situations where emancipation is needed both for a person as well as structures (systems) under which a person operates thus influencing each other in a cyclic manner. Some of these situations occur due to intentional (planned) actions or decisions but some of them could also be unintentional (unplanned). These situations may occur in the following form:

As a mental construct: The way certain images of ageing e.g. as frail, sick, weak, etc. are propagated in a system influences its management within the given system, a perceptive quality. These thought processes could result in propagating a certain way of seeing, probably as a projection, leading to further transfer of a distorted image of ageing and the aged.

As an action based on these constructs: Actions that result out of these projections could end up emphasising the message of biases or ill feelings. The issue of reservation of elderly (job, travel, availing health facilities etc.) could easily backfire as an alternative created to mitigate biases. This could easily compound the situation leading to more biases or prejudices.

The issues around the area of capability, disability, gender, caste, religion etc. add another layer of complexities to this field of ageing. But another set of issues happens when elderly, along with other age groups, become either willing or unwilling partners in propagating

an unsustainable way of living. Many may find it difficult to wean themselves off from an accustomed mode of production cum consumption cycle leading to more dependencies on an existing system. The implications of those can now be found not only in creating vast economic disparities, but also having serious consequences to life on the planet as a result of ecological disbalance. This is getting reflected during my participant interviews and also during the interactions that transpired while using the Innernetz mobile App I created for this project. There the participants have made critical observations indicating their concerns on climate change, pollution, loss of farmlands, current situation of farming etc. Though not directly highlighted in this project, the focusing of elderly as a critical constituent of a “silver economy”, as powerful consumers of a wide-ranging set of goods and services, is a reality (Technopolis-group, 2018). The Silver economy is defined (3) “as the sum of all economic activity that serve the needs of people aged 50 and over, including the products and services they purchase directly and the further economic activity this spending generates”. The baseline value of Europe’s silver economy (7) is estimated to be around 3.7 trillion pounds according to 2015 calculations, which is ranked below US and China. The above-mentioned consumption also includes money spent towards various types of leisure, recreational and fitness managing devices as well. In the case of the worldwide production of electronic waste, the fastest growing waste stream, it is estimated to be around 50 million tonnes with an estimated 5 billion numbers of mobile phones being thrown away only in 2022 itself (Gerretsen, 2023).

In the case of India, with the spurt of a booming retail market, the overall consumption pattern in the society has also undergone rapid changes. The elderly, especially those residing in the urban pockets of India and who have got the means, do look at consumption as a more active, emancipated participant (Samanta, 2018). Kerala, which is regarded as a consumerist state, has only 2.5 percent of the total population, but consumes 10 percent of the overall countries production (Mannathukkaren, 2023, 506). This ranges from goods and products that are required for daily living (food items) to ones extending into the realm of conspicuous consumption, like luxury automobiles. There could be a similar pattern of consumption with elderly groups in Kerala as their urban cohorts in other parts of India, though there is less data to substantiate such a claim.

The other attribute of my project is regarding the use of Play/Playfulness not only in the information collection phase, but also as a way of motivating people in engaging with each other in creating an emancipatory future. The potential of play has already been dealt with in a previous session. The inquiry must also accommodate some of the qualities of Play e.g. surprise, communication, immersion, flexibility, variability, ability to customise, curiosity, sensorial quality etc. into its process.

7.4 Moving beyond the emancipatory boundaries

The inquiry should ideally accommodate multiple versions and visions of perspectives and activities existing in a social as well as personal level. For example if an elderly group in Biberach capable of doing stitching work creates clothing for children of migrant families as a means of social as well as personal engagement, the meaningful nature of

this activities is also a result of the knowhow of a certain skill that could be rendered at a given time. If there is no similar skill or a cause present in Thalayolaparambu but supplemented with a culture specific meaningful and engaging action, this also needs to be accommodated. Hence the comparison shouldn't exist for the similarity or specificity of an activity but from the meaning it could generate for the users.

The other considerations that such an inquiry should support are as follows:

1.0 Accommodating intercultural inquiry: the orientations, abilities or lack of it, exposure, managing of power distance relationships, hierarchies, time management etc. which could play a significant role in providing information has to be accommodated as far as possible.

2.0 Consideration of personal stories: this process should be accommodative enough to acknowledge the wide variety of lived experiences in the form of stories or narratives. This possibility to accommodate the differing cultural contexts and the need of privacy and a creation of a secure space for communication is taken as a critical need.

3.0 Consideration of social engagements (collective stories): if possible, the process could accommodate the collection and sharing of a collective narrative or at least sharing multiple, individual narratives to a group.

4.0 Giving spaces for self-initiated, self-fulfilling initiatives: possibility to capture the self-initiated, self-directed initiatives of a person with an orientation of providing fun, meaning, joy, happiness etc.

5.0 Acknowledging a wider spectrum of belief systems: ability to acknowledge organised religions (Hinduism, Islam, Christianity etc) as well as taking part in spiritual pursuits or other forms like nature worship or astrology etc.

6.0 Incorporating participation: possibility to investigate collaboratively where sharing, caring, exchanging, co-creating, and creatively visualising (a possible future) are accommodated.

7.0 Accommodating concerns of sustenance: ability to accommodate prevailing or prospective concerns of individuals and society, like a sense of safety or security of self in society or the concerns regarding future sustenance due to ecological crisis as a result of human action.

Following the above considerations, I decided on conducting my research that will give voice to the individual, culture specific, narratively oriented, transformatory positioned perspectives of people. By using Play/Playfulness I could be wading into the inherent difficulties faced in quantifying play as an activity and more so as an attitude but at the same time facilitates co-creation, intrinsic motivation and inter-exchanges. Here focus will be on understanding it from an individual perspective. The individually constructed meanings of a scenario, which are socially and historically negotiated, need to be understood to derive a theoretical basis or a pattern of meanings (Creswell & Creswell, 2018, 46). For my project, hence a qualitative study is going to be best suited. This could provide the ground for further design intervention (experiment) proposing transformation possibilities. By making myself an integral part in the data collection and processing/interpretation part of this research, meaning construction is going to have influences of the researcher's orientation, inclinations, and previous background/experiences.

Chapter 8: Collection of information; Play as an enquiring system

8.1 Accommodating a life course perspective

Life course is a perspective formulated by anthropologist Ralph Linton (Linton, 1942). This perspective has been effectively presented by Hendricks (2012, 226- 231) who describes experiences of life as cumulative, continuous, and never ending. And to make sense of a given period in the life of a person, one needs to consider the whole life in the contexts in which it unravels. Hence in life course perspective the experience of ageing is a cumulative of historical time, aggregate of individual experiences and actions, opportunities and decisions, interactions with others and large-scale social forces (Morgan et al., 2016). The later life is understood through a perspective of attention given to life stages and transitions, those incidents that happened before and how individual and social factors shape any given phase in the life course, giving space to active ageing perspective to the life course approach (Foster & Walker, 2021). This provides a great spectrum to observe and study life and the author has made use of this perspective in his effort to understand the participants' life in the study.

8.2 Using Lego method

There was an emphasis to do the research in a setting which was comfortable to the participants (location, language, time of meeting, duration etc.). Considering the extremities in socio-cultural, linguistic, representational as well as habitual factors that the situation had on offer, the author had to seek various methods of interaction that could work effectively in both Thalayolaparambu and Biberach. Various creative methods were initially explored towards information collection as the process revolved around finding the participants' perspectives of ageing and living which are embedded with meanings that are also contextual in nature. Art based methods (Bagnoli, 2009), projective techniques (Porr et al., 2011), design & cultural probes (Mattelmäki, 2006), (Gaver et al., 1999) provided the initial theoretical foundation for the approach. As reminiscence (Thorgrimsdottir & Bjornsdottir, 2015), (Gillies & James, 1994) becomes an important aspect, the author needed a creative method that could support the participants in going back into various aspects of their life, to sort and analyse them and represent them in a manner which brings clarity, comfort and information at the same time give them confidence in extrapolating and engaging with one's future.

Eventually a Lego based system was selected as the method of information collection. One part of this decision was based on the Lego based play systems simplicity, inherent flexibility of creative options, ability to create metaphors, awareness (more in Germany), ability to form individual narratives due to the semiotic flexibility of the pieces (assigning individual meanings to the Lego blocks), ability to transport between location, ease of documentation (photos or videos), replacing lost pieces, ability to categorise pieces and also the ability to co-create, i.e. constructing a representation where the author or other people and participants discuss and then create together a representation. But the other aspect for this choice was its prevailing use as a tool in supporting creative thinking and

enabling acts of creativity (Gauntlett, 2007, 2014) in specific situations of interest. The Lego Serious Play method (Blair & Rillo, 2016), (Kristiansen & Rasmussen, 2014) is a widely used strategy of finding creative solutions to problems, situations or concerns using power of play, especially the potential of participatory and social play using Lego based systems. Using specialised as well as normal Lego building block-based systems, consultants and facilitators of this play system engage with an organisation in finding people (employee) led solutions to certain critical issues concerning the present or for future projection. For example, by playing and co-creating with the Lego Serious Play based system, the employees of a company which is currently undergoing a merger with another company, could clearly externalise and formulate possible strategies that could make the merger happen without unwanted incidents.

The potential of a basic Lego system was of great help in the Kerala stage of the work. Many people haven't had any first-hand experience with a Lego product system (even though Lego and similar products are available in the Indian market) and were apprehensive in doing it all alone due to their fear of making some mistakes (even though they were extremely comfortable discussing their life and living). This eventually was very time consuming considering the fact that the author had to first listen to their narrative for each zone, then make selections followed by representations based on mutual discussion and then make a recording of the process with participants' narrative as the third stage. The positive aspect was that the greater contextual awareness this process presented to the author due to hearing a topic more than once. The ability of participants to make corrections or changes not only while constructing them, but also while presenting and talking about them was helpful in making them more connected, comfortable, and secure, especially while dealing with uncertainties and ambiguities in their life stories.

8.3 Initial self-testing and fine-tuning Lego system

At the initial stages, I constructed a scenario of my own life and used the Lego blocks to represent it which was also recorded as a narrative (fig. 8.1 and 8.2).



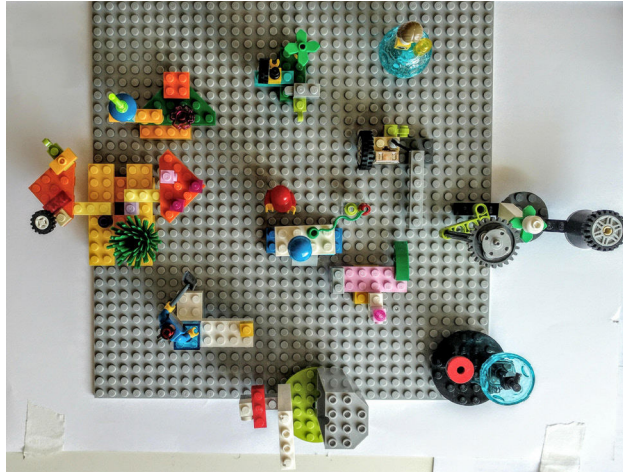


Fig. 8.1 and 8.2: Author's initial trials with the Lego blocks. There are no clearly demarcated zones on the board as well as no clearly visible gradient indicating the relevance of representation on each zone.

This was fine-tuned over multiple trials to inform about the nature and number of pieces, the sorting of pieces (separation of smaller and bigger pieces of similar colours), size of the board (playing area), arrangement of tentative zones on the base board, codifying the colours, ability to effectively store and transport, coming up with a user manual for the interaction and also aspects of recording the interviews (angle of photography, effect of light, background etc on videography etc). This was then user tested with an elderly participant who was willing to critically review the process and provide certain observations (fig. 8.3 a,b).



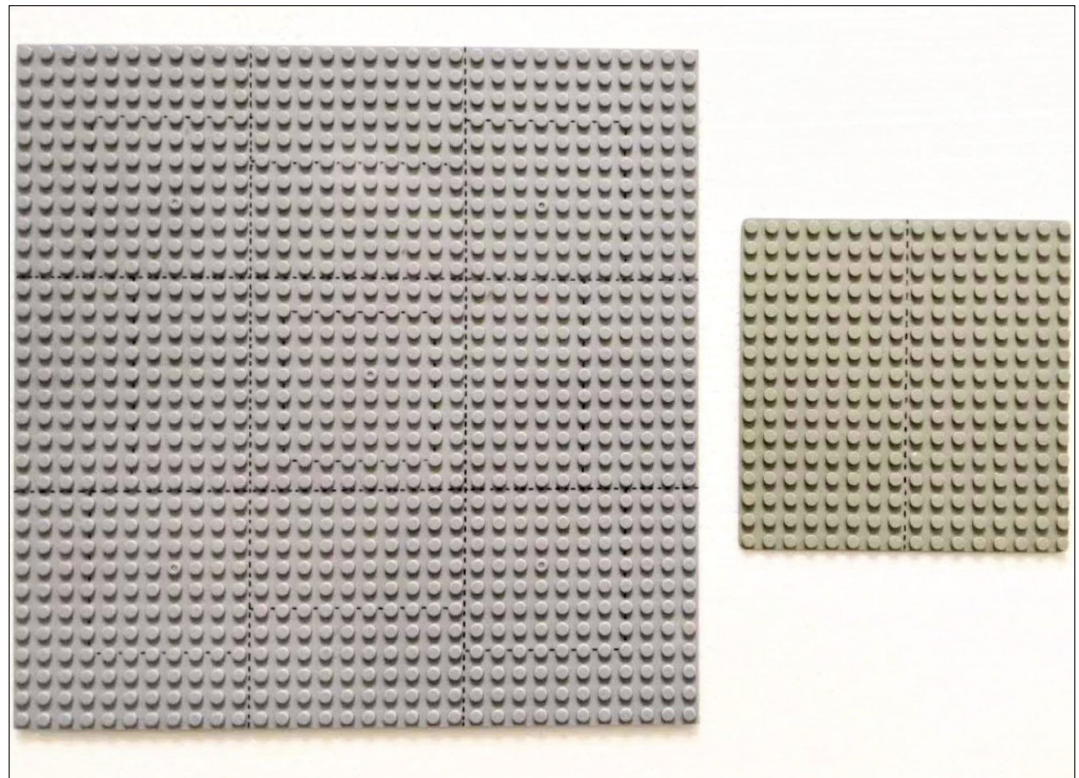
Fig 8.3 a,b.: The arrangement becomes more compact, and zoning becomes more structured. Yet zones were not clearly demarcated and without proper representation of significance.

This led to a few more iterations with the system. The critical areas encircling Active Ageing became the topics of enquiry, which were eventually divided into 9 distinct zones and demarcated onto the board for eventual representation. For some measurements, this breadth in defining each zone and the possible attributes encompassing it could be a challenge (Kim, 2020). There are also approaches which seek to observe those active roles that may produce some contribution (paid or unpaid) to community life, e.g. caregiving, voluntary work etc which benefits not only the person, but also the society (Bass et al., 1993). But in a qualitative approach using a life course perspective, it is worth pursuing this latitude of activities to understand whether any connections exist between activities and approaches and how this could lead to any benefits or challenges in the carrying forward of an active life as an elderly. There is also a need to understand whether certain activities which may not be outwardly visible and even productive to the society, like meditating, offering prayers or undertaking a spiritual journey at one's own private sphere, has any impact on this life.

In terms of the selection of participants for the project I was using purposive sampling, snowball sampling as well as selecting people on the basis of theoretical saturation resulting from the data analysis happening concurrently using Grounded Theory method.

8.4 Employing Play as an Enquiring system

The finalised system thus consisted of two grey coloured base plates (fig. 8.4), an instruction booklet ((appendix IB 1) German, Malayalam or English depending on the situation), colour segregated Lego blocks in transparent pouches for each main colour (for ease of sorting and sighting) (fig. 8.5). This was then packed inside a bag which could be easily accessed. The bigger base plate, which is the primary one, was 25 cm * 25 cm in dimension and was used to create the main representation, and the smaller base plate was 12.5 cm * 12.5 cm in dimension. This was provided to the participants as an additional resource in case they wanted to express another domain area (zone) or a new perspective of their representation (eventually two people in Kerala and one person in Germany used this facility). The bigger base plate is divided into 9 zones (fig 8.6) with Personal (Z1) at the centre and other 8 zones around this. Each zone is subdivided into two halves as indicated by red dotted lines as in fig. 8.6. This is indicative of the order of relevance a person had for a given representation. In the case of Zone 1, if something is placed inside this red square it has more importance and this goes on reducing as one moves it to the zone's peripherals. The same logic of relevance applies to other zones as well. Here it is a personal centric representation and any placement nearer to the central zone has more relevance than as it moves towards the periphery of each zone (fig. 8.7).



*Fig. 8.4: The two demarcated base plates, bigger one with dimensions 25*25 cm and smaller one with 12.5*12.5 cm.*



Fig. 8.5: The Lego blocks separated and packed in transparent pouches of two different sizes. The bigger pouches were for bigger blocks and the other for corresponding smaller blocks for ease in handling and storing.

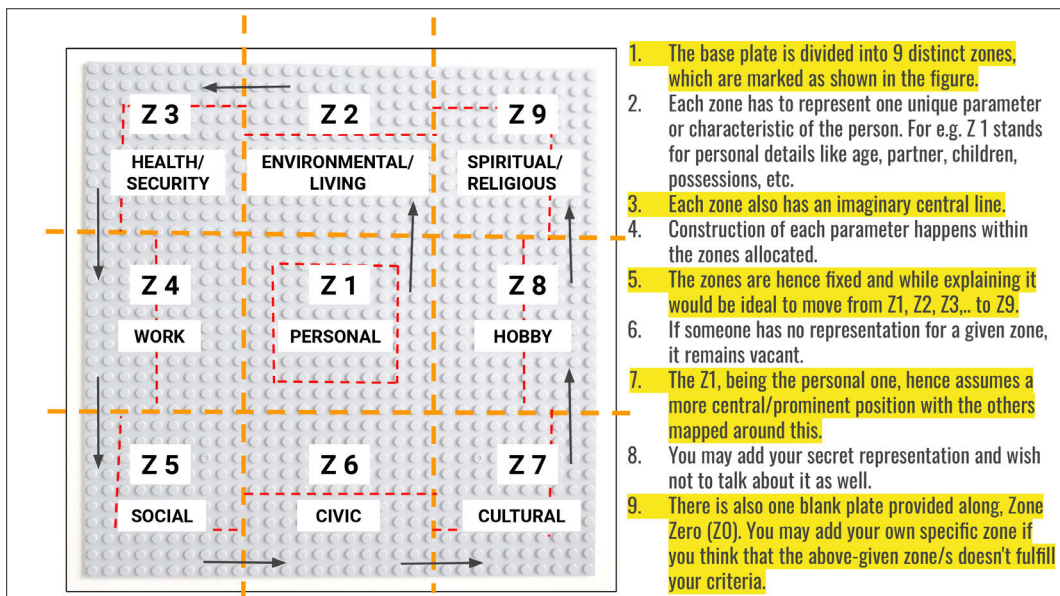


Fig. 8.6: The 9 individual zones with Personal as the central zone (Z1). The black arrows indicate the progression from Zone 1 to Zone 9. The red dotted lines here indicate the division of each zone on the basis of relevance a participant provides to a specific concept.

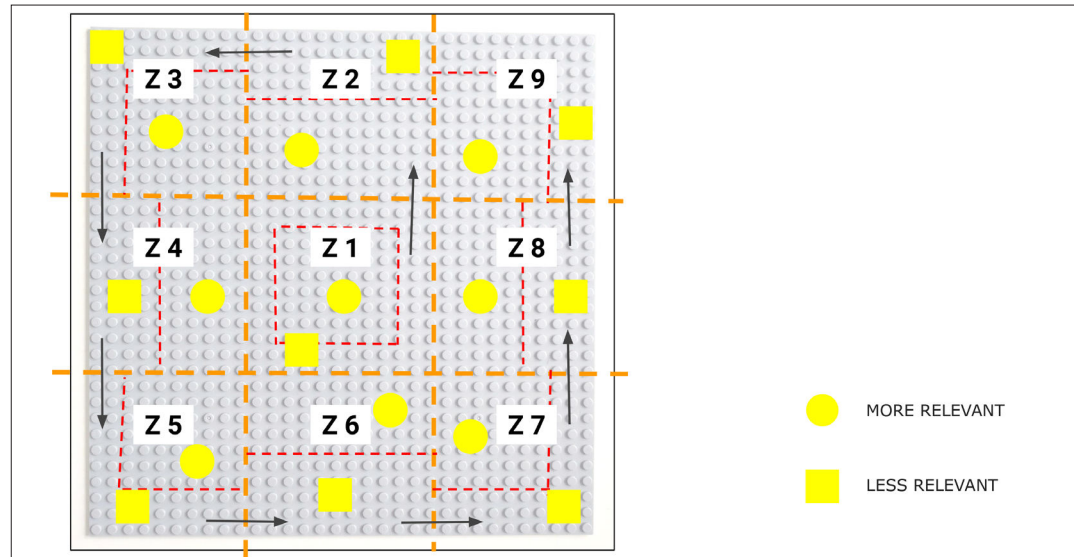


Fig. 8.7: A representation of the relative relevance assigned to each zone. For Zone 1, the placement towards the centre of the red square gets more relevance than placed towards the periphery. And for other zones placement towards Zone 1 will have more relevance than towards periphery. This is because the other zones are arranged around the central zone (Z1).

The attributes provided to indicate each zone were broad and not very rigidly constrained by the fundamental meaning of its naming. Another critical aspect is the presence of two time periods. First is the *Current Time* (fig. 8.8): A representation of current activities, contacts, and connections with reference to the same one had in the past. So, if the year is 2023, then it speaks primarily from a 2023 perspective, but with critical references from time periods till 2023. The second is the *Time in the Future* (fig. 8.9); a representation of activities, contacts, and connections 8 to 10 years into the future from the Current Time. So, if the year is 2023, then the Time in the Future is a representation of a person's projection of activities, contents, and connections they may want to undertake in the year 2031 or 2033, but taking a leap into this future, on the basis of their Current Time.

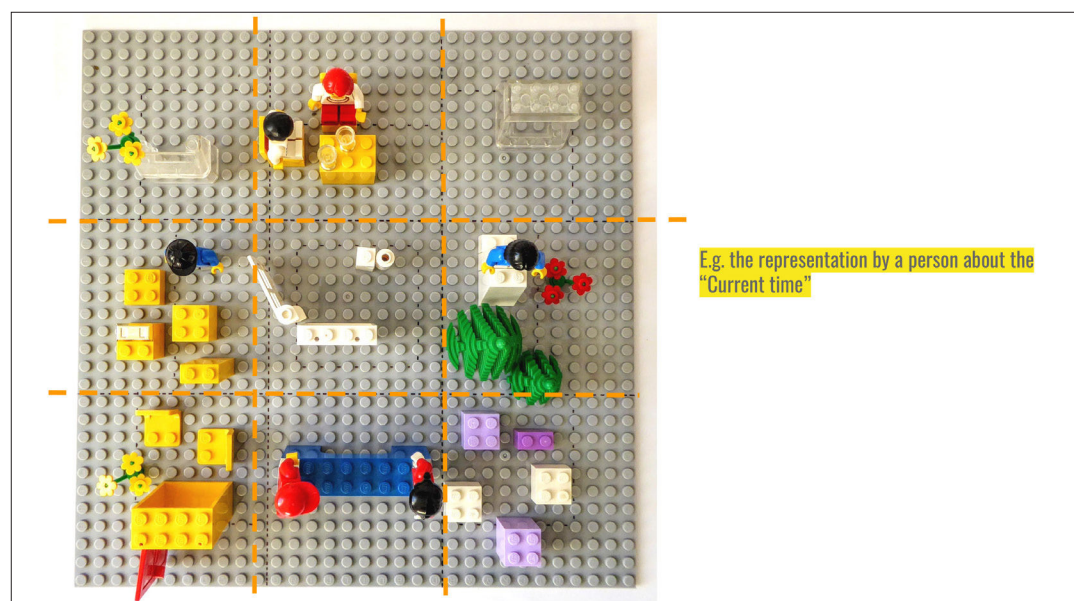


Fig. 8.8: A participant's representation of each zone using Lego blocks according to the Current Time perspective.

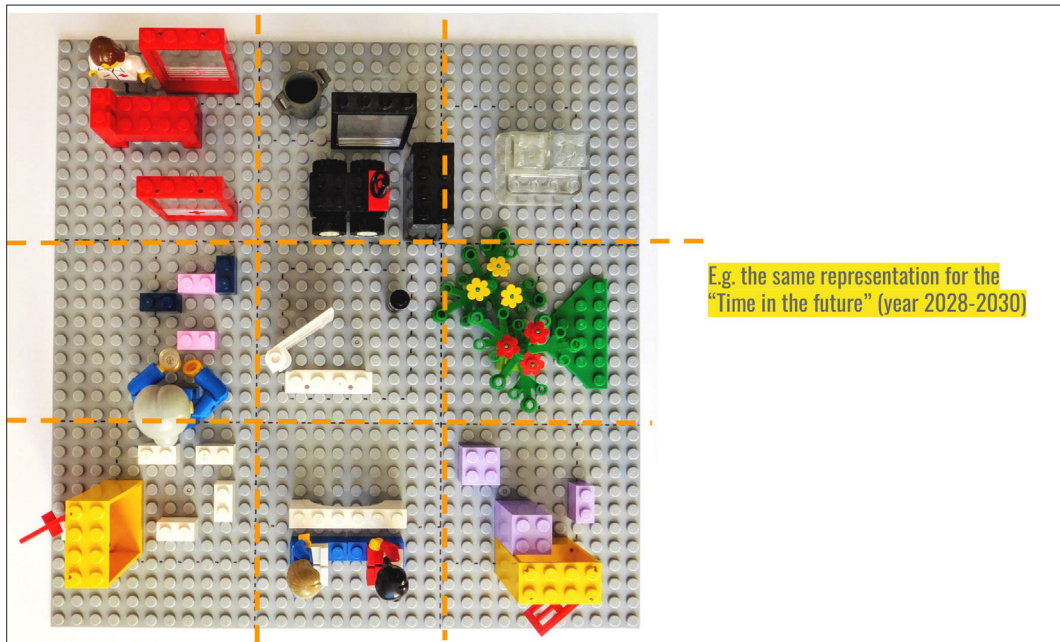


Fig. 8.9: The same participant's representation of the Time in the Future. If the Current Time is 2020, then this future representation is a projection 8 to 10 years into the future from the current time, i.e., in the year 2028-30.

8.5 Attributes of each zones

In order to facilitate the mapping of personal constructs, each zone had to be clearly defined yet not excessively isolated from one another. This was also to ascertain the interconnected qualities of human lives. To provide a sense of comfort in organising the thoughts and ideas, it was decided to start with a person centric perspective. This became the central point over which the other zones orient and organise. But I was also aware about the complexity of placing personal as the centre point. Two of the participants, who unfortunately couldn't complete their interaction during the COVID crisis, had a spiritual centric perspective. One amongst them replaced the personal zone completely with the spiritual zone, while the other followed the given pattern, but used the small baseplate to represent an overlay of spiritual qualities binding together the other 9 zones (fig. 8.10).



Fig. 8.10: The representation where the small base plate indicates the spiritual lens to look at the other existing 9 zones placed on the larger base plate.

In case of a relationship scale, the finalised representation progressed from the personal space, which is a more known and intimate one to that of a social one involving a larger society through lesser-known ones like civic zones to the more ambiguous ones of religion and spirituality. Though this doesn't work for all people, as represented in the case of people who had an overtly spiritual orientation. Even though the zones were separated, each of the zones could overlap or interexchange with one another. E.g. the civic engagement for some could also be a matter of hobby or some people may not be able to separate social or civic relationships as clearly as indicated. This overlap was clearly accounted for from the beginning itself. It may also occur that cooking may be included as a part of a hobby. But it can also be something a person strongly identifies with, thus coming under the personal zone.

8.6 Mapping qualities for each zone

The following were the expected qualities of each zone that the participants had to represent, and this was also provided along with the document handed over to the participants. This was discussed in detail with people during the briefing sessions as well. This was again taken up while conducting the interviews in order to elaborate on certain points.

Personal (Zone 1): About self, immediate (strong) relationships, things which they hold very near to them etc. pets, house, other material, and immaterial things.

Environmental / Living (Zone 2): Where someone lives, how they live, their perception about their quality of living and living space, general perception of the ecosystem, their interaction with these environments, transportation etc.

Health / Security (Zone 3): A self-perception of health and security, access and availability to health and care facilities, monetary situations, treatment facilities, way of managing a health need etc.

Work (Zone 4): Their perception of work (paid / unpaid), need for it, its influence on life etc.

Social (Zone 5): Connections with friends and relatives other than intimate family members, involvement, and activities in these social spheres etc.

Civic (Zone 6): Voluntary activities, political or organisational activities etc.

Cultural (Zone 7): Participation (active to indicate the contributory role / passive to indicate the consumerist role) in cultural activities, efforts undertaken to take part, availability etc.

Hobby (Zone 8): Something done as a person centric activity, having personal fun, entertainment, relaxation etc.

Spirituality / Religion (Zone 9): Perception and participation in spiritual / religious spheres, activities, or inclination in other types of beliefs like numerology, astrology etc.

8.7 Colours, shapes, and their meanings; The coding

Few of the colours of the Lego blocks were predefined with certain moods and meanings (fig. 8.11). This helped in the expression of ideas with more clarity and also to link those ideas to specific contexts, their meanings and even implications. Certain Lego blocks came as a combination of more than one colour. In those cases, the participant could decide which colour to be the focus colour. E.g. in the case of a block with a red coloured door and a yellow coloured window frame, the participant could decide whether they wanted to give the whole representation to be as yellow or red.

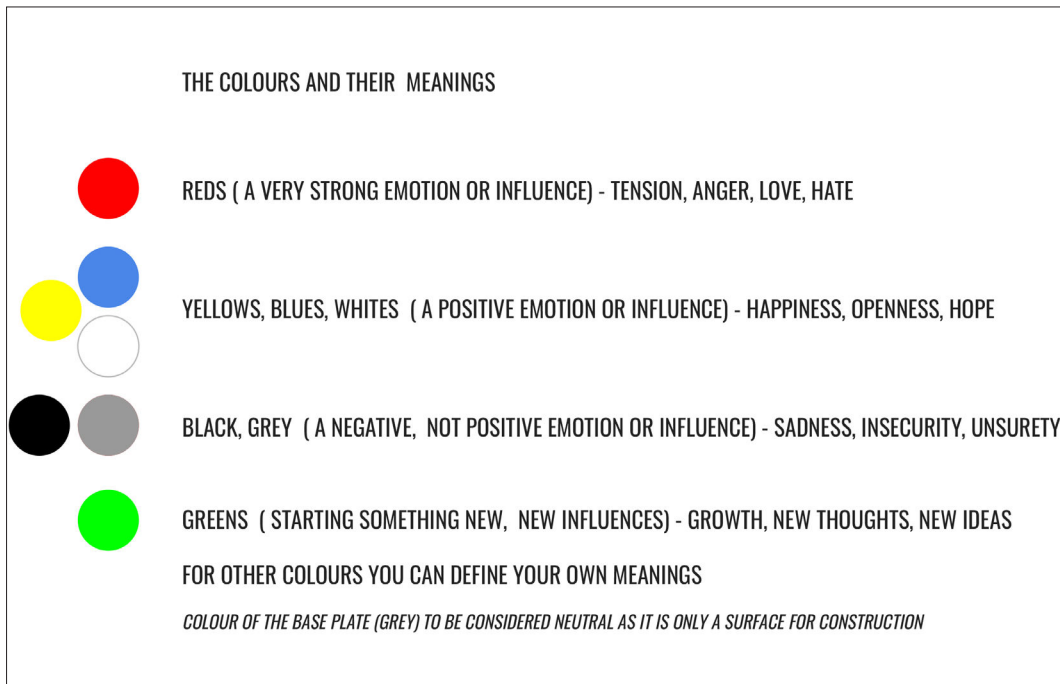


Fig. 8.11: The colours and their corresponding coding

The shapes of the blocks were not coded and hence were open for personal interpretation. But it served the purpose as a broader guiding path for expression of thoughts without being too exact and rigid about things. The participants could creatively engage with the blocks in constructing their own representation without bothering about any predefined set of ideas resulting in very unique expressions with its own inherent meanings and interpretations. As this step could get complex due to the need to remember every expression, I had requested the participants to briefly note down on a sheet of paper what they have represented in each zone. This proved to be critical as many people tend to forget what they initially thought about a certain block and hence could cross refer while explaining to me on a later date.

There was also provision given to the participants to represent something specific on a zone and not discuss it with me. These are the personal information that someone wants to keep private from others, at the same time, externalise for themselves to help them generate a cohesive narrative of a context as effectively as possible.

8.8 The process of building with Lego

After going through a brief presentation explaining the process and objectives of the project, once a participant has shown their willingness the Lego kit was handed over to them with a date set for the first stage meeting, i.e., regarding the Current Time as in fig. 8.8. The participants, after constructing their representation, narrates about their representation, which is recorded as a video. More clarifications, questions or discussions on these representations are done in the form of a semi-open, semi-structured interview. It proceeds from one zone to another till all the 9 zones are covered, but at the same time when there are any other specific questions, clarifications or ambiguities arising out of previous zones, one goes back and explores those phenomena once again. There are

situations where the participants want to discuss certain aspects off the record, then it is done without recordings (voice and visual). After this discussion, pictures are taken of the representations and not of the participants for documentation and referencing. A new date is set for discussing the next time period, i.e. Time in the Future (fig. 8.9). The participant retains the Lego system, relooks into their representation with a future perspective where the current living experiences tend to play a critical role in creating this projection. This is again discussed and documented similar to the first stage. The average time for a participant to complete both the stages were around 7 to 10 days and hence the author developed 3 sets of Lego systems to manage the speed of the process. Out of a total of 31 participants, I could complete detailed interviews of 26 participants out of which 20 were selected for further detailed analysis and coding (fig. 8.12). The criteria of selecting those interviews was based on multiple reasons like avoiding homogeneity of the participant profiles, unique growing up experiences and living circumstances, possibility of different religious and caste based upbringing (in Kerala), marital status etc. As I progressed with transcription and analysing of the data using Grounded Theory method, the evolution of categories and eventually theoretical saturation (arising from the constant comparison method) also led to defining the participant profiles for further analysis.

The interviews were supposed to be conducted in two successive phases, first in Germany and then in Kerala. But due to various unforeseen circumstances that came up due to COVID 19 pandemic, a large part of the interview schedules had to be pushed away by more than one and half years with the remaining interviews getting done under the constantly changing regional and international restrictions. The German part of the interviews resumed in the third quarter of 2021 and later towards the end of 2021 the Kerala part began which got completed towards the end of the first quarter of 2022. The interviews were analysed using the Grounded Theory method as discussed in the following chapter.

BIBERACH									
No	Code Name	Age	First Interview	Second Interview	More sessions	Profession / Activities	Living status	Other remarks	
1	Willi	72	02.08.19	07.08.19	17.08.19	Medical Doctor, Local social activities	Owens a house with wife in the city, economically stable	He receives pension and the sole earner	
2	Helga	62	11.09.19	11.09.19		Magazine editor, travel guide	Owens a house with husband in a small village, economically stable	Husband is the primary earner	
3	Christina	65	11.09.19	12.09.19		School Administrator	Owens a house with husband in the nearby town, economically stable	Both partners are earning	
4	Anna	70	08.12.20	14.12.20		Housewife, Local social activities	Owens a flat with husband in the city, economically stable	Husband receives pension and the sole earner	
5	Hertz	74	24.06.21	29.06.21		Rescue service, Local social activities	Owens a house with wife in the city outskirts, economically stable	He receives pension and the sole earner	
6	Heppe	59	19.07.21	22.07.21		Professor, Local governance	Early retiree due to illness, Rents a house with wife in the city, economically stable	Both partners are earning	
7	Maya	64	23.07.21	29.07.21		Housewife, Spiritual healer	Rents a flat with husband in the city outskirts, economically stable	Husband is the primary earner	
8	Linda	70	09.08.21	16.08.21		Doctors assistant, Local social activities	Rents a flat alone in the city outskirts, economically stable	Provided by husbands pension	
9	Guen	64	09.08.21	08.09.21		Bio Farmer, Politician	Owens a farm with wife and kids in a village, economically stable	She has her pension	
10	Helena	67	01.09.21	06.09.21		Teacher, Local social activities	Rents a flat alone in the city outskirts, economically stable	Both partners are earning	
11	Herman	65	03.09.21	09.09.21		Religion Teacher, Musician	Owens a flat with husband in the city, economically stable	Basic pension and some savings	
12	Sandra	70	17 and 20.09.21	28.09.21		Traveller, Author	Taking care of a house in the city outskirts, economically less resourceful	Both partners are receiving their pension	
13	Ludwig	77	11.06.21	-		Language Teacher	Owens a house with wife in the city outskirts, economically stable	Basic pension and some savings	
14	Bibi	65	14.12.19	-	17.12.19 (only first part)	Kindergarten teacher	Owens a house and lives with her son in the city outskirts, economically less resourceful	He is the primary earner	
15	Peter	66	16.12.19 and 04.02.2020	-		Industry professional	Owens a house with wife in the city outskirts, economically stable	Both partners are receiving their pension	
16	Miriam	76	18.06. to 10.07.21	-	4 times we met	Drama teacher	Rents a house with husband in a village, economically stable		

THALAYOLAPARAMBU									
No	Code Name	Age	First Interview	Second Interview	More sessions	Profession / Activities	Living status	Other remarks	
1	Rajan	86	10.03.20	11.03.20		Management professional	Owens a house with wife and son in the town outskirts, economically stable	He is an active consultant and the sole earner	
2	Joye	64	13.03.20	13.03.20		Professor	Owens a house in the town outskirts, economically stable	Pension and earnings from the farm	
3	Rubia	62	09.12.21	13.12.21		Agricultural officer	Owens a house with her husband in the town outskirts, economically stable	Both partners are pensioners	
4	Latha	76	12.12.21	15.12.21		Social worker	Rents a house with her friend in the town, economically less resourceful	Receives a basic honorarium from the organisation	
5	Das	66	13.12.21	15.12.21	14.12.21 to complete first part	Police officer	Rents a house with his family in a village, economically stable	He receives his pension, kids also contribute as they live together	
6	Jayan	62	14.12.21	04.01.22	4 times for the first	Farmer, Politician, Insurance agent	Owens a house with his wife and daughter in the town outskirts, economically stable	Financially supported through his business and wife's employment	
7	Capri	65	18.12.21 to 23.12.21	24.12.21 to 28.12.21	3 times for first, 2 times for second	Insurance agent	Owens a house with his wife and daughter in the town outskirts, economically stable	His business along with daughters earnings	
8	Vijay	65	18.12.21 to 23.12.21	30.12.21 to 01.01.22	3 times for first, 2 times for second	Insurance agent, Politician	Owens a house with his wife and children in the town outskirts, economically less resourceful	He has pension and sale of insurance products	
9	Valsala	62	03.01.22 to 05.01.22	05.01.22	2 times for first	Teacher	Owens a house with her husband in the town outskirts, economically stable	Both partners are pensioners	
10	Raman	70	08.01.22 to 22.01.22	29.01.22	4 times for first	Bank employee, Insurance agent	Owens a house with his wife in the town outskirts, economically stable	His pension along with business earnings, wives parents living with them	
11	Ali	67	10.01.22 to 18.01.22	18.01.22 to 20.01.22	3 times for first, 2 times for second	Businessman	Owens a house with his wife in the town outskirts, economically stable	He is the sole earner through his business	
12	Balan	68	17.01.22	20.01.22		Teacher	Owens a house with his wife in the town outskirts, economically stable	Both partners are pensioners	
13	Tom	60	22.01.22 to 26.01.22	28.01.22	3 times for first	Businessman	Owens a house with his wife in the town outskirts, economically stable	He is the sole earner through his business	
14	Leo	60	08.03.20	No time to finish due to corona related emergency work		Scientist, Consultant	Owens a house in the town outskirts, economically stable	He is an active scientific consultant	
15	Prakash	67	10.03.20	11.03.20		Bank employee, Spiritual leader	Owens a house with his wife in the town outskirts, economically stable	His pension and wife's salary	

Code name is the pseudonym provided for this project. Age is the age provided by the participants at the time of the interview.

The interviews in red couldn't be completed or considered for further analysis for varying reasons.

Fig. 8.12: An overview of participant interviews using the Lego method in Biberach and Thalayolaparambu.

Chapter 9: Data analysis and Theoretical evolution of Engagement

9.1 Data analysis using Grounded Theory methodology

The decision for using qualitative analysis and Grounded Theory as a methodology for the analysis was taken prior to the interviews considering the many strengths, especially concurrency in data collection and analysis, using data as the source for codes and categories, constant comparison, evolution of theory with new data, sampling as aiding in theory construction and its ability in creating theory grounded on data (Glaser & Strauss, 1967). The possibility of constructing theories at multiple levels, especially substantive ones (Strauss & Corbin, 1994, 273-285) was a powerful option. The author was following Charmaz's version of Grounded Theory (Charmaz, 2014), which is constructivist in nature due to the co-creative nature of data collection I was undertaking as well as certain prior readings directing the contextualisation of the topics under study.

Along with conventional memo writing, I also experimented with a narrative approach involving 12 different stories (6 from each side) in evolving the understanding of the study (Annex STR). The stories were selected primarily for the possibility to explore unique characteristics of the person and the situation, possibility of a story arch representing the life and some of its transitions (until a certain period) as well as the possible extrapolation into the future, the narrative space where I could make observations about certain socio-political and economic circumstances, the possibilities to find certain unique "keyhole" moments through which one could make a short pause to explore some areas deeper, ability to observe stresses or opposites (comforts vs discomforts), possible observation of unique personal qualities transcending the conventional (social) expectation/representation of a personality etc. This eventually proved out to be useful in assessing the contexts (within cultures, across cultures) and eventually arriving at a theoretical understanding supported by comparison of substantial codes (line by line, open coding). This process proved out to be helpful during interview stages which were happening in between the COVID times. The following are examples of an overview and a narrative each from Biberach and Thalayolaparambu.

9.2 Participant overview and narrative

Name: Sandra

Age: 70

Occupation: Author, traveller

Education: Bookkeeping, general administration

Family status: Single

Place of living: In the town of Biberach

Sandra's current life: She currently takes care of a house in the city of Biberach and lives there alone. Biberach is a temporary stopover before she moves on into another part of the country or the world. After taking early retirement from her job, she has done world travels and written on her experiences. She has a few very close friends in Germany and also in different parts of the world.

Her relationship with her brothers and family members is not very warm. She is waiting for the corona crisis to get over to start journeying to her next destination.

Comforts (where everything is fine): Freedom, health, travelling, intuition, car, fewer material possessions, pension, close friends, medical facilities, care insurance, nature, relationships in the locality, buying locally, helping others, joy of sharing, dancing, baking, gardening, reading, writing, going to theatre, going to concerts, visiting museums, comfort with foreign cultures, intergenerational exchanges, spirituality, meditation.

Discomforts (where things could be better): Finding a suitable partner, corona pandemic restrictions, travel restrictions, relation with siblings, inaction, communication with cohorts, losing out on face to face interactions,

Concerns (where things are very critical): Restrictions to travel and exploration

Possibilities (the future opportunities): Living in a multi- generational space, travelling with a partner, having a second home, being open to new experiences, cultivating relationships, retaining human connection, not giving up hope, hobbies as meaningful activities.

Keywords: Not fighting for freedom, good gut feeling, following the first thought, feeling the energies, living long as a single, to pack and leave, taking the first step, courage to leave, to have a backdoor, feeling the deep fire, follow new impulses, finding solutions, apartment as a ballast, nature as a spiritual connect, following one's feelings, meaningful engagement, human interconnection, intergenerational linkages.

This was followed by a brief narrative (around 1500 words) which evolved from the interviews and discussions I had with Sandra. The overview helped to locate the person in terms of age, gender, family status etc. This was followed by a short overview of the person and an analysis of the person's comforts, discomforts, concerns, and possibilities, with a certain level of overlap with the Strength, Weakness, Opportunity, and Threat (SWOT) analysis. There are key points generated by me from the narrative representative of the person and the situation being expressed by the person in their interview. This qualifies as a specific observation, or a code, concerning a given interview. The keywords are a more generic representation of concepts which are present in other narratives as well, a more evolved and elevated/substantive stance, which are of the category quality in a Grounded Theory analysis. This was very helpful for me in the theoretical construction stage so as not to lose the human/personal contexts of ageing at the same time deriving/evolving a common pattern of a theory.

After transcribing, I completed multiple readings of the interviews. This process of developing a narrative mode of exploring a situation proved to be helpful in providing a quick overview of the situation under study along with identifying the recurring codes which had the capacities to be raised into a category quality. This eventually helped in creating a cohesive substantial logic, which is the Theoretical evolution of the concepts under study.

Sandra's story

It's a pleasant sunny day in Biberach and Sandra is on her way from the market carrying some fruits and vegetables she bought from the local market which are from the famous Lake Konstanz area. She already has a couple of ideas in her mind; to bake a strawberry cake and make a cherry marmalade (jam). Baking is something she really enjoys doing.

She has been without a house for herself for a long time. She gave away her rented apartment when she started travelling the world after quitting her job in her mid 50's. She always felt that her apartment was a buoy and a liability. She wanted to experience the world, its different areas, people, cultures, and its beauty. She has travelled around the world twice and wrote about her experiences. She keeps a diary where she meticulously records those happenings. There was always somewhere deep inside her to experience freedom. But she also says she never rebelled to get this freedom, rather she let it come to her. She prepared her trip, packed her luggage, and just took the plunge. In her life she always felt like having a back door through which she could just step away into a different world.

If you ask how it was to travel around the world as a single individual or as a single woman, without a definitive destination; she replies with a smile and says "I just follow my intuition". She has always felt comfortable with her gut feelings and then went ahead. She seems to sense the energy of a place. If she finds it positive / comfortable, then she stays on and if not she will move on to the next destination. She has lived in shared accommodations and also places where she exchanged her work for her stay. She has met people from different countries and of different age groups, usually in their mid 20's and early 30's and has never felt left out in such situations. Rather she was welcomed for her insights from her travels. She has made a very strong network of friends in different parts of the world, and it always gives her great pleasure in connecting with them later to exchange updates about each other's life and living. She felt comfortable with the exchange of ideas and comparison of situations and felt richer through these exchanges creating an empathy for each other. She felt more at ease with the younger generations than her cohorts.

As a child growing up right after the world war on a small village farm, it was not the right world for her aspirations. Her grandmother was very religious which became less for her mother and even lesser for her. The place was just too small for the free spirited nature of Sandra that she went out of the village to study bookkeeping and later general administration. She worked in a hotel reception, which she felt was the best work she did, even though poorly paid and with a lot of taxing shift duties. She enjoyed meeting people from different parts of the country and the world. She later found work in a multi-national company which offered her a better remuneration and status. Her brothers used to make fun of her saying that her first love was her work. She worked long and hard and enjoyed every bit of it. It was also in this period that her marriage of over 15 years collapsed.

Her relationship with her brothers and later their families have never been very deep. But she has a few close friends in Germany with whom she keeps in touch. With newer video calling technologies, she is in touch with her friends in different parts of the world. She is most happy when she can offer some help to her friends or neighbours. She likes to bake and share them with her neighbours. She really likes this joy of giving. She also helps and spends time with an old neighbour of hers in Biberach. But she is also in touch with

families in the neighbourhood and assists them in taking care of young children, telling short stories with them, or going with them to a playground etc.

While working she took time to engage with children from troubled households or with a background in immigration. She gave them lessons in German and also took them out for visits in museums or parks. Due to her constant travels and the current uncertainty of residence in Biberach, she hasn't committed to any voluntary activities available with the city. The covid crisis has also given her a huge blow. There were all around travel and gathering restrictions which made her hang around in and around her home. And as she is not vaccinated against corona, she has fewer chances to undertake the journey as it used to be. As a person who rejoiced at the actual touch and presence of people around her, this was a huge vacuum that got created.

She looks forward to a world devoid of such health issues and appreciates her monthly pension and insurance that she has in Germany as a safety net. But she is not overly worried about getting sick or ending up in a hospital. She has a lot of faith in herself as one can see from the giant leap of doing her first world tour when she was 55 years old. She feels the first steps are the most challenging ones. i.e. stepping into the unknown without the comforts and security of the familiar. She strongly feels that one has to follow one's feelings and one should have a deep fire to do things and not get worried by outside noises. She has fewer material possessions and only one she really adores is her car. This is more of a mode that takes her from one point to another at her own pace and time. So, by keeping her material possessions low, and not worrying too much about the finances at hand, she has held on to her ability to just pack and go at the same time earning a huge amount of experiences and memories as her paybacks. She feels her engagements with her spiritual world helps her in this. She likes to visit churches when it is empty just to soak the energy of the atmosphere or admire the art works. She also likes church music which she listens to when they practise it. She feels the energy in her body when she hears music. She was someone who could dance without a break during musical festivities, the quintessential first one in and the last one out. Now she feels shunted out from many dancing groups because of her age, the lack of a partner and an ongoing pandemic..

She likes following her thoughts while sitting out alone in nature or going out for a walk through the forest. For her nature has a spiritual energy. She does yoga to strengthen her body and also meditation to provide calmness to her mind. Giving and receiving joy according to her is spiritual. The sharing or being part of someone else's memory is also for her a spiritual quest.

Something which she really has a longing for is to find love once more in her life. She has been single for a very long time. She keeps this option in her life open that one day she will meet someone with whom she can share her future with. Once she comes to know someone, she feels that it is going to take some time before they could come together as a pair. She wants to retain enough freedom to be in her own space when required. She feels that one has to follow new impulses, to be curious and always ready to learn.

This is something she expects from the new intergenerational housing project she is applying for. Her positive experiences of interacting with younger generations have given her the confidence of trying out this option of living. She is hopeful of getting a place in this setup where she can use her skills of engaging with young children or bond with families or run errands with her car to help drive elderly people to a doctor's appointment or buy some food for them etc. There are areas which are yet not clear for her. She is someone who has lived for a long time without a house but as she says, "a roof over her head". Her connections with the locality have been open, joyful, reciprocative and communicative in nature. For a long time, she has always shifted from one abode to another without having a sense of deep rootedness to a place. So, for her, being in a space or with a person for the rest of her years could be a test on offer which one hopes she will have success with.

The following is a similar approach from Thalayolaparambu about Das.

Name: Das

Age : 66

Occupation: Retired government officer

Education: Higher secondary, skill training

Family status: Wife, two grown up children and two children of his relatives

Place of living: In a village in Thalayolaparambu

Das's current life: Staying at a rented house in a village near the town with his wife. Two children of his relatives are staying and being looked after by his family. Though his children are grown up and have their own individual jobs, they stay with him. He is currently constructing his house and busy looking after those activities.

Comforts (where everything is fine): Relation with wife, health, health facilities, eating healthy, exercising, pension, relationships with immediate family, proximity of relatives, centrality of a home, perks of profession, watching TV, browsing internet, singing, worshipping nature, readiness to help.

Discomfort (where things could be better): Owning a house, finances, childhood days, quality of food, image of a police officer, enforcing rules, flooding.

Concerns (where things are very critical): Traffic.

Possibilities (the future opportunities): Own a big house, stay together, property to generate income, travel in an aeroplane, visit other places, assist children.

Keywords: Centrality of a home, pillar of support, make both ends meet, interdependence, interexchange, family first, family stability, fury of nature, staying fit, the dream job, maligned image of profession, power of office, power of conviction, insatiable wish of flying, worshipping nature.

Das's story

Das is back at his rented accommodation after visiting the construction site where he is building a new house. It is big with a large number of rooms and also spacious. The aspect of having a home of his own is central to his life. As a person who has grown up in the midst of poverty and social backwardness in a home that was constructed from mud

with leaking roofs, the need to own something proper, long lasting as well as presentable was something very strong inside him. Another aspect was a failure on his part to overlook the nature of the plot before construction. He had already built a home, after he got his employment. This was also made of concrete and according to their needs and wishes. But due to constant water logging during monsoons, they had to dismantle the entire house. This time all necessary precautions are done before the construction and he is hoping to finish it soon and start living with his huge family including his children who are already employed, their kids and two girls he and his wife take care of. He likes the proximity of his children and his close relatives in his life.

He has chosen this space due to some other reasons as well. It is close to the town where the land prices are much higher. It is well connected with a paved road which can be accessed year long, the proximity to basic facilities like hospitals, schools, market etc, possibilities for his children to access the place after their late-night working hours as well as the presence of other family members around this space. This he feels will give his family a familiarity and a sense of security. He wishes for his family a lot of inter-exchange between his neighbours in the days ahead when they start living there. He intends to create additional spaces, like one or two additional rooms in front of his house which could be given out for rent as a commercial property to act as an additional income generator in the days ahead. They are now financially stable due to his past earnings from his profession as a police officer and his pension amounts. But the additional expenses of constructing a house and the need to bring up the two young children is a financial burden to him.

Das was attracted towards the power and visibility of the police force from his youth days. After clearing the exam, he started working in his dream job in the police force and got posted, often for long durations, in different parts of the state. It was his wife, whom he considers as the mainstay, who looked after the family, children's education, social engagements and functions as well as her own job as a tailor. He enjoyed his work in his department and was promoted for his service. He says of himself as someone who had the convictions in his belief and transparency in his approach even during adverse situations and that helped him work without any fear in his field of work. But there is also something which he is quite careful about while being associated with the police force. It was this image of the police as someone indulging in womanising, which prevented him from establishing close contacts with people in his locality. He feels that a part of this image is created by the media and cultural institutions which at times portray a negative image of the police department. But he is careful not to create such an impression and hence seldom visits the people in their houses. Some of his childhood friends are living in the vicinity. But the relationship with them has decreased over the years. One of the major factors he attributes is the difference in living standards which came along due to his financial stability due to his job. He doesn't have any deeper friendships in the locality. He is in touch with some of his former colleagues through their online social network groups like WhatsApp or Facebook. There also he has few deep friendships. He is someone who is ready to help if called upon and able to give proactive suggestions

in case of situations requiring a mediator in the social area. But otherwise, he prefers staying away from local politics, social commitments and confine himself to his home.

He devotes a lot of his energy in taking care of his family. He wakes up around 4 in the morning to help his wife in the kitchen. Their children carry food from home to their workplace. He doesn't trust the quality of food available in the restaurants and tries not to buy fish from the local market due to excess use of harmful preservatives. He is very concerned about health and manages it through regular exercises and work in their building construction site. He is also responsible for dropping off and picking up the two young children from the school. Even though they are old enough to walk to their schools all alone, he feels the traffic conditions have become very unsafe and it is better to transport them in his own vehicle. He feels that the local authorities are not strictly enforcing rules resulting in the foot paths being taken over by the billboards of local shops. This is in a busy part of the town and causes immense problems for the passers-by, especially the young and old people.

After his retirement he was working in the private industry providing security services for some local firms. He stopped doing this after a couple of years due to the nature of the job which offers minimum protection for the staff members while on duty as well as the need to stay away from home regularly. He feels that there are many such opportunities to continue working for those interested and is very happy with the remuneration he was receiving for his efforts. He feels currently being caught up with the construction of his home and also assisting his wife in taking care of the family so that their children can do their jobs properly. Even though he likes to watch movies in the theatre, he and his wife haven't watched a single movie in a movie hall since his retirement 11 years ago. He likes to catch up on his favourite movie stars on the television as well as watch reality music shows. He is a big fan of the Safari channel, which is a regional travel channel. He always wanted to travel, but never got any opportunity to go far due to work related issues. He and his wife have a keen interest to travel and see the lives of people in different parts of India, especially in the north. One of their biggest dreams is to fly in an aeroplane which he hopes to turn into a reality very soon. He likes to sing but not in public. He was interested in theatre and was part of many plays during his younger days. Nowadays he has no time to watch those any more.

He is a strong believer of God. He feels that it is only through god's blessing that he could move up and achieve things in his life. But he avoids visiting any temples or any places of worship. He is critical of the commercialisation happening in the name of religion. He is thankful to god that he has children and grandchildren who are healthy and fit. He is a great worshipper of nature. He believes that the various sources that sustain life on our planet are given by nature and that should be thanked for and taken due care of.

There was a pause of 1.5 years in between the interview phase, right after 7 interviews (combining Germany and Kerala) due to the corona crisis and it could resume only after I received my COVID vaccine. The interviews were more time taking and one always had

to keep spare dates for interactions considering the changing COVID restrictions or other circumstances. I had to transcribe and translate all the interviews done in German and Malayalam into English which was also time-consuming. In such situations, a detailed memo writing proved to be not feasible, and I had to resort to alternate means like repeated listening of the audio/video tracks of the interviews and making quick notes/scribbles on paper.

9.3 The Theoretical evolution of the concept of Engagement

In the research process up till now one experiences the use of personal Engagement as a conversational tool which is capable of providing space as well as the means to manage the various actants within this space in a coevolving and co-creative manner. Another feature of Engagement is also to do with those complexities of lived memories and experiences of human life. To engage with self in a manner which is comfortable, at the same time convincing to self and the other person, is a complex task in itself. The equations of power and trust are something that has to be taken with extreme sensitivity, especially by the interviewer. The possibility to engage with self, make choices for self and at the same time be able to withhold certain aspects of personal life from the other person (while laying bare those factors for oneself), was for me a more democratic and equitable way in dealing with such a situation. Efforts are made in this project to make such a factor a reality. Hence one could see that the concept of Engagement has a lot of potential in the sphere of my work i.e. in Social Transformation Design. It can find its use not only in the method of doing my research i.e. use of a Lego-based approach in collecting information with a given audience but also in exploring the nine zones of enquiry.

The possibility of Engagement in the Lego-based method could be seen from a rather mechanical or functional as well as from a conceptual perspective.

The mechanical perspective could be seen as the actual processes involved in building the Lego based construction dealing with selection, interlocking, replacement etc. of the pieces to communicate an idea.

The conceptual perspectives can be as following:

1. To engaging in deeper conversations by the interviewers around the aspects to *create a deeper understanding*
2. To engage in a *self-reflection on the past, present and future attributes* of an aspect
3. To engage in a *conversation with a relative or a friend in order to clarify a thought* before representation
4. To engage in *multiple iterations of an idea* before finalisation
5. To create *in situ engagements* e.g. to move or change the location of pieces while explaining a concept to the interviewer
6. The *deep emotional engagement* while being interviewed

On the basis of the analysis of the interviews using Grounded Theory methodology, the following pattern evolved as shown in the fig. 8. It highlights the importance of Engagement in the life and living of elderly people. In order to arrive at the significance of Engagement, the data collected through the Lego based method proved to be the way forward.

9.3.1 Aspects of Daily Living (AsDL)

Thus, the quality of the system of Play/Playfulness to initiate and sustain an enquiry came as a significant factor and hence named Play as an Enquiring system. It was found that the personal as well as social systems have a critical influence on an elderly's daily life and living. This is represented as the Aspects of Daily Living (AsDL) as in fig. 9.1.

AsDL influences the way the elderly organise their work, leisure, personal and social interactions, finances, health and security, beliefs, and attitudes. As many of these factors are intrinsically connected with the life and living a person has had for a long period of time, these can be considered to be viewed through the life course perspective.

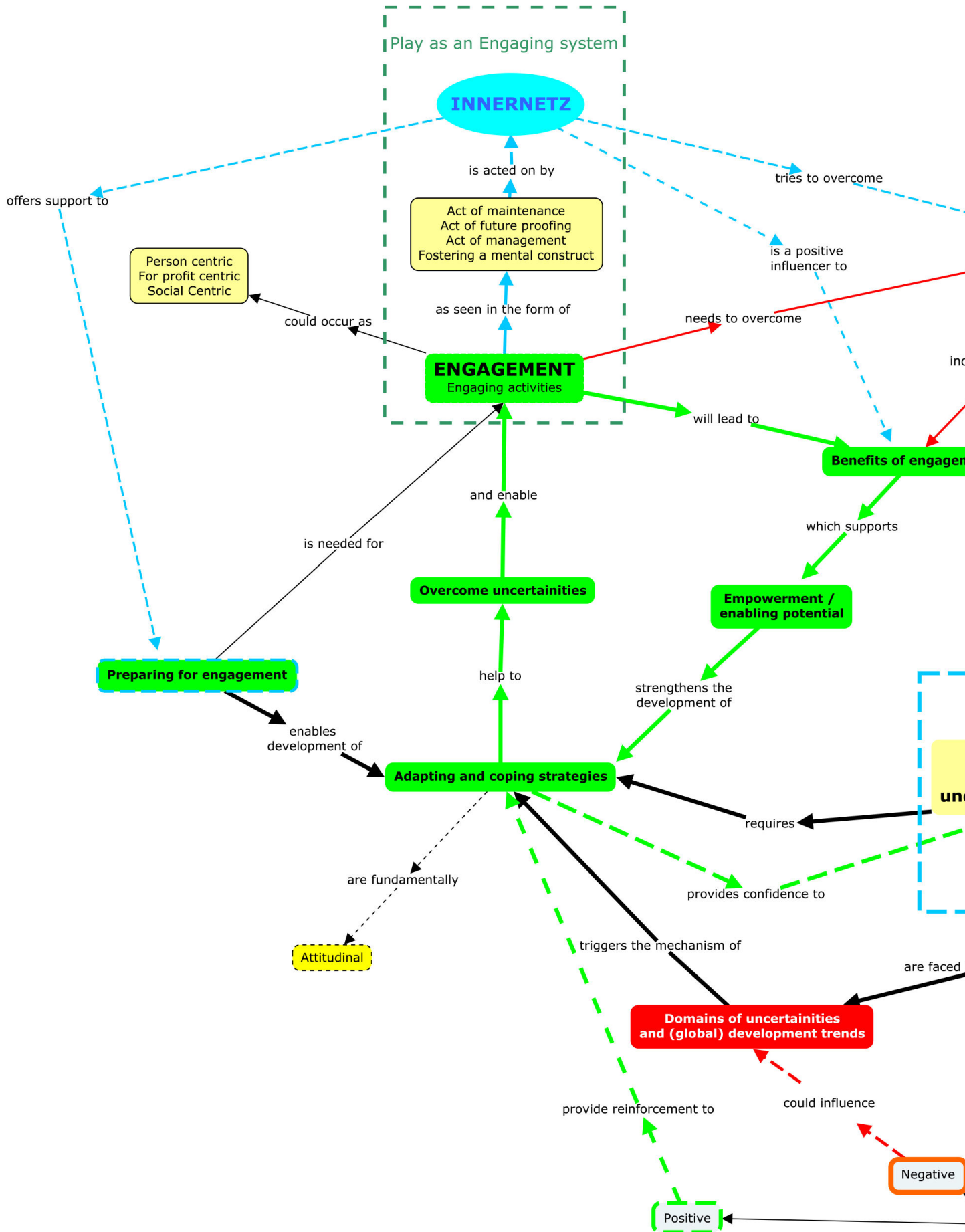
"... even though I had my job at places which were far away from here, I have my roots here and I have my property here... Even though my father and mother expired before I got retired, but the other relationships, and the temples, all of these were in Vaikom".

3.0 Balan 68, 22-32, para 24.

Balan's rationale of settling back in his ancestral village after his retirement is due to his strong emotional and physical connections with his village. This involved prior planning like constructing a house, retaining constant contact with the village by visiting it during vacations, maintaining a good family relationship with his relatives etc.

"I have it very nice here with a large garden and my lovely neighbours. And I find the air, water, and the environment here very clean. The bus stop is a 5-minute walk. Then I can go in all directions even a little bit further into the beautiful surroundings, which are scenic and then there are possibilities that I have in the market days to have conversations and meet people or also to visit the library". 3.0 Sandra 70, 21-31, para 20.

Sandra is house sitting for a friend in Biberach. She has access to many facilities in the city and around due to her proximity to the city centre and a reliable public transport system. The city is financially strong to afford many good facilities for its citizens.



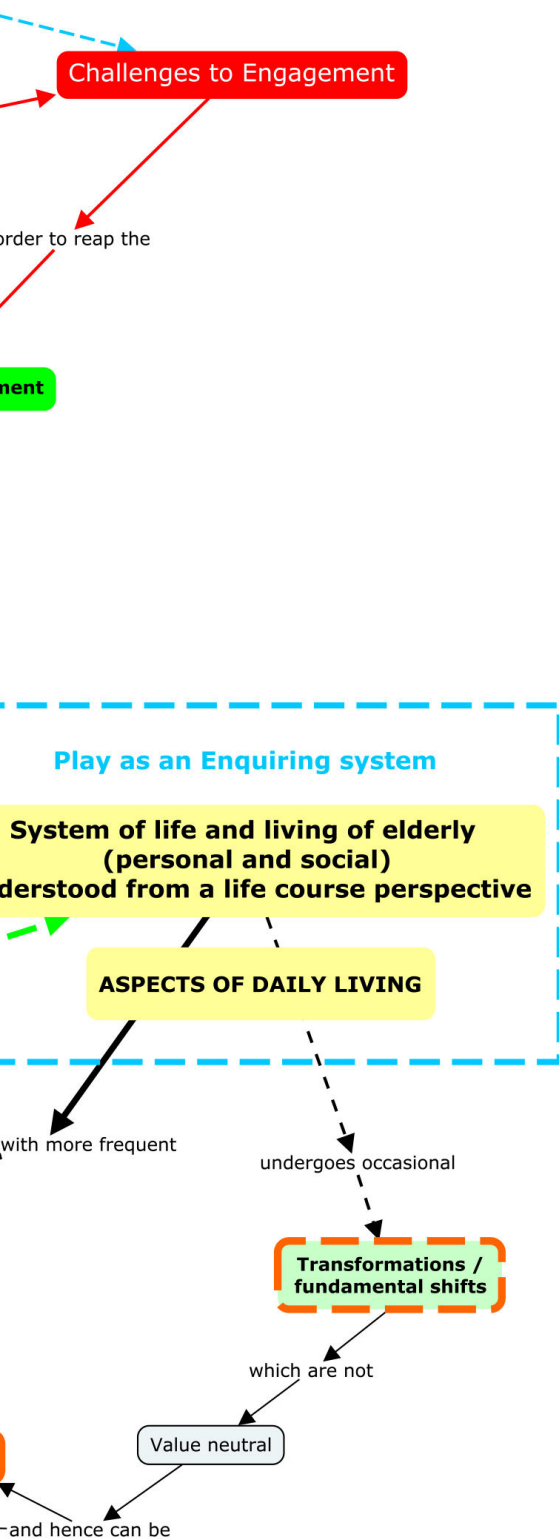


Fig. 9.1: A system mapping highlighting the relevance of Engagement in the system of life and living of the elderly. One may start reading this figure from the right side box, Play as an Enquiring system. Following Aspects of Daily Living, if one takes the less frequent Transformations track, positive Transformations (the green dotted arrows) reinforces the Adapting and Coping Strategies and the negative Transformations (the red dotted lines) influences Domains of uncertainties (red box). Aspects of Daily Living at the same time more frequently influence the Domains of uncertainties triggering a mechanism of Adapting and Coping Strategies. Adapting and Coping Strategies help to overcome uncertainties and enable Engagement and Engaging activities. A healthy and positively functioning Adapting and Coping Strategies positively reinforces the System of life and living of elderly. Engagement could occur in Person centric, Profit centric, and Social centric domains and harnessing the Benefit of Engagement could support Empowerment and Enabling potential which in turn strengthens Adapting and Coping Strategies. In order to reap the benefits of Engagement, one needs to overcome various Challenges or Limitations to Engagement. Preparing for Engagement is required for the effective functioning of Engagement and this is also beneficial for the Adapting and Coping Strategies. Through Play as an Engaging system, the creation of Innernetz could enhance Engagement by influencing activities like Act of maintenance, Act of futureproofing, Act of management, and Fostering a mental construct thereby enhancing the positive Benefits of Engagement and helps to overcome the Challenges or Limitations to Engagement to create an actively aged life and living.

9.3.2 Transformations

This system of life and living of an elderly also undergoes occasional Transformations which are Fundamental shifts, having influences on the personal as well as social sphere of an individual like for example, getting diagnosed with fading eyesight or breakage of joint family structure.

“After completion, my dad told me that I should not think about further studies. And if I want to study then it will become difficult for the younger siblings to move forward. When he told me that, due to my childish thinking at that time, I thought if only one person should suffer and the others could escape, then let it be like that. That’s how I took over this struggle and took forward this shop and also took forward the studies of the younger siblings”. 3.0 Vijay 65, 21-31, para 12.

In this example, Vijay, who was 65 at the time of his interview had to bow down to the pressure from his father and gave up on his education to look after his father’s business. This made him the responsible person for his family at a young age thus compromising his future studies and work.

“It will not remain like this, and it is going to be worse in the future. I might have to have a second transplantation in each of my eyes. But that is such an uncertainty that my eyes have given to me that also shapes my everyday life, for example driving a car. I still drive the car here in Biberach, but otherwise not”. 3.0 Herman 65, 21-31, para 45.

Herman, who happens to be a musician, has to reorient his life due to his illness with his eyes. This uncertainty makes him reassess his future plans and at the same time constantly orient his present activities.

There are negative attributes in case of transformations and have influence on the Domains of Uncertainties in the lives of elderly. But at the same time, such transformations also result in positive shifts like more openness as a society or meaningful activities in old age homes to keep elderly creative and healthy.

“... Today the life of the handicapped is very different from what it used to be in former times. It was a torture if someone was physically or mentally handicapped. Today they can lead a normal life”. 3.0 Hertz 74, 21-31, para 74.

“... also in old age homes. They offer a large variety of programs for the old people. A lot of things are getting done nowadays. A lot of possibilities are explored as to what each individual can do to strengthen themselves, to give everyone the opportunity to explore the talents that they still have and that’s what I find great about these facilities”. 3.0 Hertz 74, 21-31, para 120.

The above perspectives by Hertz indicate the positive shifts or transitions in the society regarding the handling of differently abled or inmates in an elderly home in Germany. This could be seen as reinforcing the Adapting and Coping Strategies of elderly. Thus, one can see that such Transformations are always value laden and have long term influences in the living system of elderly.

9.3.3 Domains of Uncertainties

The system of life and living of elderly is more frequently influenced by various Domains of Uncertainties, which also have components of global uncertainties acting on the individual life or lives in a region. For individuals it could be in the form of losses (death or disabilities), financial issues, recurring health issues or it can be social issues involving the environment, inadequate pension or care systems or growing religious intolerances. Such uncertainties have immediate and recurring consequences on the lives of elderly.

“Because the children are from the new generation, and they need not be liking this cooperation and coordination of their fathers (parents). They are into new colleges, newer friendships, new life. So, when we call for a meeting, the involvement of the new generation is rather low. I don’t know how far one can take this initiative of togetherness forward” 3.0 Jayan 62, 21-31, para 54.

Here Jayan expresses his concerns about the lack of interest in the family gatherings from the younger generation. According to him, his family network might not survive as the new generation think more individually and differently than him and other elders.

“My mother is still alive and yes this is black on purpose because she has influenced my whole life in a very negative way and also until today. I am now 70 and I have to say that I just can’t manage to say that it’s over”. 3.0 Linda 70, 21-31, para 6.

The complex relationship Linda shares with her mother is illustrated here. This has made her unhappy with the strong feeling to tell her mother that she doesn’t like to engage with her on a day-to-day basis.

9.3.4 Adaptive and Coping Strategies

But at the same time, most of the people in this age and economic group that the author studied are also resourceful and are able to activate the mechanism of Adaptive and Coping Strategies. Though not every aspect of these strategies is thoroughly planned. It can be an extension of the socially existing processes people adopt or adapt according to their needs. As it involves both *adoption of* and/or *adapting to* some new situation, these are fundamentally attitudinal in nature. These strategies come in the form of *Acts of maintenance*, where people don’t initiate new activities or are happy in maintaining a certain status quo.

“The family relationships, I feel, should go on as it is now. I don’t have the interest to make it stronger”. 3.0 Latha 76, 21-31, para 49.

“... I don’t start something new. Or concerning the work on the farm. I am here, I work together, I contribute. But I don’t have to start something new. In a way it is enough. I will be doing things slowly, but as I said, I don’t have to be there with everything”. 3.0 Gruen 64, 21-31, para 11.

Here both of the above examples seem to be comfortable in the way a certain state of affairs is played out. There is a comfort in what is there already and maintaining this continuity seems to be more critical than having newer additions.

The second strategy is to do with *Future proofing*. This involves thinking and planning in advance for the continuity or future sustenance. This is a form of active thinking involving planning for the future with a belief that everything will work out to be fine. This is illustrated in the following examples. In the first case, the person assumes to have found a suitable heir for their hereditary property and in the second case, despite the strong liking to be in the same city, the couple have already planned for an assisted living facility to tackle their old age uncertainties.

“We have handed over our farm to our kids and we have actually nothing more. We still have a small savings balance and I get money from my children as a pension because they have the farm from us. And I am basically quite unconcerned because for me, for the two of us, this house is there for the rest of our lives.”. 3.0 Gruen 64, 21-31, para 15.

“... I don’t want to live in a big flat like this, I would like to move into an assisted living facility with my husband. We do have one flat in an assisted living facility, but I would like to live here in Biberach”. 3.0 Anna 70, 21-31, para 36.

The third strategy is called *Managing the transition*, which is a more active stage calling for an active problem-solving attitude and there is an urgency in finding some solution as well. “I dismantled my first house and constructed a new house on the same property by land filling the space which used to get waterlogged earlier”. 3.0 Das 66, 21-31, para 7. This person has lost his only house due to flooding. When he retired, they did not have a space to live. So, the family shifted into a rental accommodation. They dismantled their existing house and started building a new house as fast as they could.

“My daughter has a child, and she is also employed. So now we are supporting her in a good manner. We will be continuing this support in the future as well as long as we are there”. 3.0 Gopi 65, 21-31, para 17.

Gopi and his wife became the carers for their granddaughter due to the marital situation of their daughter. Even if his daughter is with his family, she has to work long hours. His wife is also facing health issues rendering him an active care giver. This is despite his active business schedules. In both the cases, solutions are actively and urgently sought for a given situation.

The last strategy calls for *Fostering a mental construct*. This may be in the form of a belief system connected with maintaining a certain image or perspective.

“... I do have a positive attitude towards life. I felt safe. I always feel safe in my own constitution, and I feel safe in the country I live in. I always look beyond the horizon, and I know I belong to a minority of maybe five percent who live in abundance. And very few have that. And that is why I am not afraid of the future. I live here in security”. Hertz 74, 21-31, para 63.

The prevailing social systems have a huge say on the acceptance of such initiatives. The Adapting and Coping Strategies are occupying one of the critical points in this system.

They manage uncertainties and help move the system forward through Engagement/Engaging Activities. Positively functioning Adaptive and Coping Strategies constantly inform and give confidence to the Systems of Life and Living of the elderly as a balancing and cushioning factor to the unexpected changes or uncertainties.

9.3.5 Engagement

Engagement takes place through following strategies. A *person centric strategy* could be like going out for musicals and cultural activities, praying for spiritual well being, mountain biking trips with family for fun, going for a hike for maintaining health, playing musical instruments to relax etc.

"We like to go very much and if possible regularly, to the opera in Bregenz. We go to the musicals in Stuttgart or while on our holidays look whether there are any musicals nearby or open-air spectacles or theatre, or theatre here". 3.0 Christina 65, 20-30, para 82.

"From childhood, I was a believer in god. Mother used to tell us all the Keerthanam (prayers), to recite together the Sandhyanaamam (evening prayers), and at home do the prayer rituals... What I got out of this is that I, myself, am the God. So, in order to get closer to this, I go without fail to the various classes in the temple on Narayaneeyam, Bhagavatam etc". 3.0 Valsala 62, 22-32, para 128.

"... started to make hiking vacations, for example just the long hikes, while it was cheap. There I only had to pay for the overnight or with the bicycle. Then I found out that one liked it tremendously. There I always felt fit and that is somehow nice, to go from one point to another. And this my children liked. One of them always did it together with me". 3.0 Helena 61, 21-31, para 53.

"... I have done a course on how to ride a mountain bike downhill or ride on the stairs, such stories (smiling). This I have done for a few years. This was one hobby. I have done it with my daughter so that one could simply ride into the terrain... It excites me again and again to drive on the terrain...". 3.0 Anna 70, 20-30, para 134.

"... my wife and I both play musical instruments. We are not professional, but it is an incredible amount of fun to play together with others, to do something with others, to sit with others, to drink, to talk regarding politics or about God and the world...". 3.0 Gruen 64, 21-31, para 61.

A *profit centric strategy* is where the activities that someone undertakes also earn some financial profit for them and it could be in the form of investment in land to sustain income, starting a coaching centre after retirement to earn some extra income etc.

"... I bought some land with the thought that I will get old and one should have some land for myself. And now, in my old age, I am already getting the benefit of those in my life". 3.0 Jayan 62, 21-31, para 41.

"... because, first of all with my experiences of working in the training sector of the bank, there was an idea to start a coaching centre for bank exams (to acquire a bank job).

So, with some of my friends from a locally based creative society, where they all promised to cooperate, we started a training establishment". 3.0 Raman 70, 22-32, para 34.

As a social centric activity, it is a non-profit initiative a person undertakes for the larger good of a society. This could be in the form of providing gymnastics for elderly people in an old age home, being active in politics etc.

"My voluntary engagement is mainly in the elderly home. There I give group gymnastics for 14 days in a month for people who come by themselves, who live in the assisted living house".

3.0 Anna 70, 20-30, para 109.

"I am still working in the social sector because, as a person, I have always worked in the service sector with this clarity that it is my obligation to take an organisation forward. That is why I am working in it". 3.0 Vijay 65, 21-31, para 83.

This Engagement could also be about an *intangible aspect* like a strong wish or a dream. For e.g., the strong wish to perform Hajj in Mecca or a dream to fly in an aircraft are strong motivations that keep people deeply involved and engaged in trying to make it happen.

"I would like to go to Saudi Arabia and do Hajj... I like to go there with such an intense desire. When one believes in something with such an intensity, only then it can happen".

3.0 Rubia 62, 21-31, para 98.

"... one of our wishes is to travel by aeroplane and visit the other states in India, to see people speaking different languages and to understand their ways of living. We have an insatiable desire in both of us. Without too much delay and if both of us are still alive, we will go". 3.0 Das 66, 21-31, para 71.

9.3.6 Preparing for Engagement

The aspect of Preparing for Engagement is a step which is needed in the activation of Engagement and also a critical feeder for the Adopting and Coping Strategies. It could be thought of as a process through which the various agencies are made ready before the actual Engagement begins. This could even be considered as a critical aspect in sustaining the concept of Engagement and hence a strong influencer in the area of ageing systems. It is subjective at the same time strongly influenced by the social structure one operates in. The following are its qualities:

1. *Finding "me time"* stands for finding time for oneself to be able to participate or do necessary preparations to participate in something. In certain societies men in comparison to women are able to organise their time effectively. Women due to their responsibilities of caregiving in the form of grandchildren or an elderly family member find it difficult to take out free time (Yerkes et al., 2020).

"... stitch clothes for my kids or for my grandchildren or my dress. I make use of the time that I get and do the stitching. That is something that I like to do every time... I don't get bored". 3.0 Valsala 62, 21-31, para 115.

This person stitches clothes during afternoon break while watching television, thus combining leisure with a purpose. This is a dedicated time she has kept for herself to take up this activity. Here one could see that she is active in doing stitching while also involved in watching her favourite afternoon programs on television.

"... experience the work with people as very nice but also exhausting especially in emergency situations. You have to be very precise, very fast and very appropriate to do the right thing and I find that very exhausting. It is nice to do that, but as I said it takes a lot of energy and then I just need a time where I withdraw and can come to my strength again". 3.0 Herman 65, 21-31, para 96.

Here "me time" acts as recharging time where there is a lack of activities that prepares the person to go back to his active self.

2. *Doing prior preparation* means investing in resources like money, time, energy etc to improve one's own skills and abilities in order to take up some activities.

"... now I have started it again. And, of course I have to practise playing it and I play it together with someone else who is 50. We go once a month to the elderly home and play there or during the Christmas party or Nikolaus. For that one has to practise a lot".

3.0 Anna 70, 20-30, para 110.

It is imperative for Anna to rehearse the notes on her accordion before going out to play in front of the group. They also improvise during their performance, which requires more coordination and training.

"... I do supporting training for tours in the open air museum in Krumbach, near Schussenried. This is for adults. There I learn how one should present something, how one should talk in a group". 3.0 Helena 67, 21-31, para 88.

Here Helena is investing her time in undergoing training to be a museum guide after retirement as a public servant etc. The activity is very engaging for her and despite her being a teacher, she wants to give her best in talking to an adult audience in a new context, i.e. a museum situation which affords a different type of learning.

3. *A feeling of obligation*; here a part of the motivation to do an activity comes as a duty, due to prior engagement of someone from family or close contact doing the same act beforehand, a means of carrying forward a family legacy.

"... the fact that I am a farmer by profession, this is also my hobby. One can also take it as a culture where to carry forward something which was built a long time ago. It also is fun. It makes me happy that one implements things". 3.0 Gruen 64, 21-31, para 58.

The urge to carry forward the legacy of a farmhouse built by his forefathers makes him engaged in the various aspects of farm and farming, despite being retired from the day to day activities.

"... have had a lot of bad experiences while working there. Still my mind doesn't allow me just to be an audience. So, every time, one doesn't try to see the negative points, but consider this as an obligation to take forward that initiative. It is with this perspective that I am taking care of my duties. I would like to move forward in the future in the same way".

3.0 Vijay 65, 21-31, para 84.

Being involved in social activities was something that Vijay received from his father. Despite his certain bad experiences while working in this sector, he still feels it as an obligation to continue with his activities.

4. *Unearthing the qualities of social trustworthiness* indicates giving out a feeling of being welcoming and trustful that others feel comfortable in engaging. This comes in the form of showing belief in fellow beings, undertaking transparent dealings, exhibiting leadership during crisis, being someone who does not impose on others, showing a deep commitment to relationships.

5. Having *Awareness of self & surroundings*; is a way of being self-aware about one's own strengths and weaknesses exhibited through following qualities of being realistic about oneself, seeking active satisfaction, staying in a mental state of flow, ability to like oneself, preparing to take it easy, learning to trust life and accepting one's vulnerability.

"... One understands oneself that the body sets limits. The organs are used up, the joints do not work together (laughing)... Earlier we used to make bicycle tours covering 50,60,70 km per day. When we do it now, I drive 20 kilometres, completely enough. More is simply not possible. The body sets its limits. This is a creeping process, ...That's like that, that's the fact". 3.0 Hertz 74, 21-31, para 76.

"... not to forget myself... very important, to nurse oneself, to stay in self-love. That is the most important thing. Because if you do not love yourself then you cannot love other people. Then you cannot work on and with others, to stay connected with everything and to stay in growth...". 3.0 Maya 64, 21-31, para 158.

6. *Understanding the power of small or local*: is about seeking local abilities and initiatives for servicing local needs. This involves not only commercial needs but also emotional ones as well.

"... I always like to buy (local) and think when I buy I support the farmers here who market themselves, but not organic of course but it is the regional. In the supermarket the Bioproducts come, maybe, from Bavaria. That's why I generally buy my vegetables from the local market". 3.0 Anna 70, 20-30, para 22.

"... I am someone who likes to carry the flag above but rather in the small area. I like to get involved with disadvantaged people, for people who are single, here in my environment where I live, where nobody looks. There I make them sometimes quite big and strong". 3.0 Maya 64, 21-31, para 88.

"... so even smaller jobs have their own significance. It is not about a bigger job... Maybe this smaller job is what might be assisting for a bigger one. One should do what is doable. This is something that is good for the health and also for the mind... Then one does not feel being old. One gets this urge to keep on doing things again and again". 3.0 Balan 68, 22-32, para 65.

This can exist in the form of using local markets for buying local farm products, a person interested in maintaining small personal exchanges as a means of interpersonal bonding can come under the aspect of local exchanges. In the first case, the person is well informed about the situation of local farming and the politics of the marketing of regional

products. Hence there is a conscious decision to engage with local producers which brings her a sense of satisfaction and a feeling of helping the environment, both of which are more complex and broader concepts. The concept of focusing on local needs and starting changes from there up is a concern exhibited by Maya. And Balan also indicates the same concepts in a manner of active engagement. For him, none of the small jobs are trivial. They may usually go under the radar of the authorities, local organisations or even for close relations. Through such intense seemingly incognito engagements one could arrive at significant results. It fosters a maintainers approach (Maintainers, n.d.), which in many ways support the sustenance of social functions when compared to the disruptive function of innovation and fast changes.

9.3.7 Benefits of Engagement

The Benefits of Engagement are those gains a person or even a society could have through the various acts of Engagement. Benefits of Engagement has a *personal perspective*, leading to concepts like self-realisation, self-enrichment, doing something meaningful, doing something for the body and mind, earning some extra money etc.

"... There are people who get older and say I know this. I don't need this. I find this openness to find for new and something beautiful, again in the old, I find it very important to look for it". 3.0 Herman 65, 21-31, para 130.

"... It is a fulfilling work. It gives me a lot of personal benefits. Also I like to be together with people very much and also with people in difficult life situations. And that is because I think dying is a special and also a difficult life situation. If I can accompany someone or also accompany families, then that is a good thing". 3.0 Linda 70, 21-31, para 40.

But the actual potential could be a *social one*, in converting those prevailing social situations (of ageing) into a more favourable and acceptable one; a fundamental goal of social transformation thinking. The following qualities of reciprocity, intrinsic motivation, meaningfulness, aspect of being acknowledged, etc are even though attitudinal and hence individualistic, but powerful enough to make deeper social changes.

"It is incredibly important that one is socially engaged. And of course, you also get a lot in return... whoever is open, socially engaged, who is together for others, I think they receive all these things in return and certainly this is the beautiful thing...".

3.0 Gruen 64, 21-31, para 55.

"I get recognition. And I get this feeling of being able to do something. So, I get this feeling of happiness that I experience in what I do. That I find as a great reward. It makes me feel alive and I find that quite essential. I could imagine that, maybe, it makes me even healthier in the end. I recognise that I am quite happy and think as if I did some sports. But I think that it is also beneficial for society". 3.0 Helena 67, 21-31, para 123, 124.

"I did think it was challenging because other people rely on me. So, I had to build up a new way of experience, to learn by doing or to get some sort of new abilities to deal with the day to day running of things. So, my background helped me to bring in a structure into what had to be done. It was a work for the community, so it had its worth. And I wanted to do this". 3.0 Heppe 59, 21-31, para 60

When one is able to consider the Benefits of Engagement with an enabling potential, it influences, or rather closes the system loop, from an empowerment perspective.

This helps in stabilising the Adapting and Coping Strategy thus rendering the System of Life and Living of the elderly to become more stable and stronger. In my study, as explained earlier, the significance of the concept of Engagement that evolved out of my study is again utilised for enhancing the Benefits of Engagement and also to decrease the Challenges (Limitations) to Engagement.

9.4 Linking with knowledge creation in design research

The theoretical evolution of the concept of Engagement as an able partner in the personal as well as the social life of the elderly in an Active Ageing scenario happened as a result of the data analysis from the participant interviews. Certain hints towards this direction also aroused during my initial studies on the various scenarios involving Active Ageing, interculturality, Social Transformation Design, and especially on Playfulness. Following Jonas (2014,33) this may be considered as the learning or *Analysis* part of the project. These learnings along with my previous exposure and my experience of getting to know more about the life and living of elderly in Biberach and Thalayolaparambu through observations, exchanges led to the eventual development of the Lego based participant interviews using Playfulness as a critical enquiring part. This becomes the doing/ design/*Projection* part of the work. The analysis of the results of those interviews using a constructivist approach of Grounded Theory thus provided for the creation of the theoretical construct on Engagement becoming the *Synthesis* part.

This entire process can be captured as a modified version of the phases of knowing cycle of design research of a Research Through Design (RTD) process (Jonas, 2007) as shown in the fig. 9.2. Here the *inductive phase* consisting of questioning and investigation is followed by the *abductive phase* of creation of the Lego based participant interviews leading to the third one, the *deductive phase* of reflection, discussion and the evolution of a theoretical construction of the concept of Engagement. This progresses into a newer set of knowing cycle as the project moves into further stages involving exploration of the *concept of Engagement* using *Innernetz App*. This will be discussed in chapter 11.

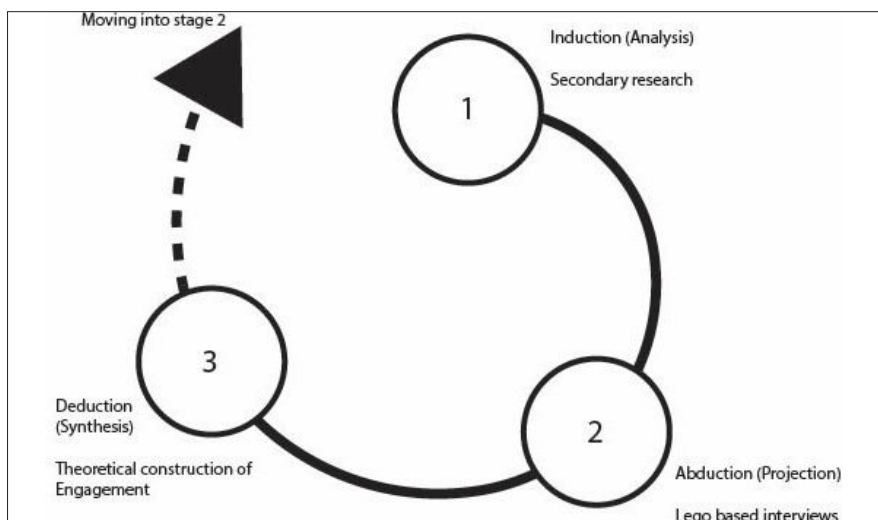


Fig 9.2 The stage 1 of a modified RTD design research cycle showing the Inductive, Abductive and Deductive phases leading to deeper learning of the concept of Engagement.

9.5 Reframing the research questions

The following were the 3 research questions with which I entered into the project from the beginning. On the basis of the information gathered from the theory development phase, I would like to redefine those on the basis of the relevance of the concept of Engagement, especially giving importance to Play as an Engaging system

- 1. How is the concept of Active Ageing (WHO, 2002) perceived by a German and a Keralite, who is 60 years and above?**
- 2. How can Transformation Design approaches using Playfulness as a methodological tool influence the inquiry of Active Ageing?**
- 3. How can a self-sustaining methodology on Active Ageing be derived from the study, influencing the future policy on ageing?**

Redefined questions involving the concept of Engagement

- 1. How is the concept of Active Ageing (WHO, 2002) encouraged through a concept of Engagement perceived by a co-creating German and Keralite, who is aged between 60 and 75 years?**
- 2. How can Transformation Design approaches benefit by using a concept of Engagement and being aided by Playfulness as a methodological tool in the inquiry of Active Ageing?**
- 3. How can a self-sustaining methodology on Active Ageing be derived from the study, influencing the future policy on ageing?**

Here, the current phase (theoretical evolution of Engagement) becomes the basis for the construction of the experimental phase involving Playfulness and the concept of Engagement, this involves the coming together of participants from two distant places (Biberach and Thalayolaparambu) within a playful space (called Innernetz).

There they could feel free to explore, analyse and exchange with one another the potentials of Engagement within the domain of Active Ageing.

Chapter 10: Play as an Engaging system

10.1 Designing for Engagement using playfulness in Active Ageing

The possibility to use creative methods in providing choices, material exploration, evolving multiple perspectives, dealing with ambiguity, giving a form to abstractness etc. are qualities of design which playfulness also affords. It also deals with attitudinal aspects. The ability to feel motivated and take initiatives (self or in a group) is an attribute that play could accommodate in its functioning. The possibility to have sharing, co-creation, fun, relaxation, joy, movement etc. as processes and outcome is a strong quality that play has which design could benefit while working in tandem. Play is also a way to engage strategically with a given situation (Gamification (Deterding et al., 2011)), create scenarios that could be perceived using senses, and construct linkages that are capable of stringing logic and fictions effectively (narratives). The ability of players to make mistakes and learn from them is a quality that playful situations afford. They could also make certain prospective bets without having to worry too much about losing face or face rebuttals from critics because of the playground-like qualities provided for a novel type of play to take shape. Hence in the case of working with complexities involving design, especially in social contexts of Ageing Actively, Playfulness as an attitude could function in tandem with Engagement to provide a sustainable way of managing the present and interpreting the future.

10.2 Innernetz, an online playspace

The next stage of the project took place with the creation of a space to play which should help participants of my project to engage (with oneself and with others) in creating an atmosphere where they can exchange, share, question and learn. Implementation of ideas or creation of working prototypes which had to solve any specific concern related to ageing were not an expected outcome during this stage of the work. Here the quality of engage as a participatory function was taken forward by bringing together the various participants of my project existing in different spaces, i.e. Biberach and Thalayolaparambu, into a single space. This is done through an online interface called Innernetz. The primary role of Innernetz will be to act as a Playful interlocutor between the different individuals, their thoughts, ideas, and their worlds.

The word Innernetz (a combination of the English word “Inner” and the German word “Netz”) came from my research, through one of my conversations with Balan. He was talking about the need of communicating with the younger generation and the requirement of conveying the aspect of interdependence of human existence. There he states the following: “This is the time of the internet. But it is our innernet that decides things... So when one comes from the internet to the innernet, then one should be able to tell them, at least somethings, as to how one should prepare for this Innernet, the pros and cons... Human beings are interdependent...”. 3.0 Balan 68, 22-32, para 14,15.

I have found this concept of interdependence as a strength of human existence and this is referred to by many people in my research work, especially with regards to maintaining social contacts and exchanges. At the same time, there is an overarching inclination from the participants in Biberach towards maintaining independence and retaining mobility and self-determination in their old age when compared to participants from Thalayolaparambu.

“My wish, my idea is that no matter how old I get, I decide about my life myself. I don’t want to be dependent on the decisions of others. But whether it will be possible, I do not know. And this fear that this is no longer possible that I will not be able to decide for myself, is there”. 3.0 Hertz 74, 21-31, para 26

But he is also signifying the importance of interconnections and linkages in another:

“... I would like to do all activities as far as the body and the mind allows me because that is life. The meeting and interaction with other people. It is the exchange with other people. This is life. I want to continue to do this as good as I can, as far as my body and mind allows”. 3.0 Hertz 74, 21-31, para 119

10.3 Engaging through Innernetz

The author’s concept of *Innernetz*, which employs *Play as an Engaging system*, is a design mediated Playful interactive communication channel. This is an Android based smart-phone App, which will bring together people in the diverse socio-cultural backgrounds of Kerala and Biberach. The idea was to evolve a shared at the same time contextual understanding of each other’s lives and living as elderly using conversations, stories and probably some creative explorations. A few of the participants of my interviews, 6 in total (3 from each side) are the *players* in this process and the Innernetz is their *playground*. This is the space for creating new ideas, explorations, re-constructions, and Playful probing of each other’s perspectives of lives as stories. Hence the process has elements of interactivity as well as narrative expressions facilitating an evolution of conversations into possible learnings or takeaways that the participants can probably implement in their lives. The stories thus move on from being subjective and personal entities into a repertoire of knowledge and experiences. This could be employed as personal references for asking new questions or finding better possibilities for a given situation of life and living of elderly, perhaps an accessible site for emancipation.

10.3.1 WHO’s Participatory Video (PV) project

It is worthy to mention here the collaborative Participatory Video (PV) project done by World Health Organization, InsightShare and HelpAge International for the meaningful engagement of older people thus contributing to the UN Decade of Healthy Ageing (2021-2030) (World Health Organization, 2022, 1). This time period is also known as The Decade by the UN, which is a global collaboration that builds on the 2002 Madrid International Plan of Action on Ageing. It is aligned with the last 10 years of the Agenda 2030 and the 17 Sustainable Development Goals and its pledge to “leave no one behind”.

The four key actions getting focused through The Decade are 1) changing how we think, feel, and act towards age and ageing, 2) developing communities in ways that foster the abilities of older people, 3) delivering integrated care and primary health services that are responsive to the needs of older people, 4) providing older people who need it with access to long-term care.

There are four enablers through which these actions are supposed to be implemented and they are 1) enabling meaningful engagement of older people to ensure that their voices influence discussions on health and well-being, 2) building capacity for integrated action across sectors, 3) linking stakeholders to share experience and learn from others, 4) strengthening data, research, and innovation to accelerate implementation.

The idea of the PV project, being implemented between late 2020 and early 2022, (ibid, 2) “comprised pilot-testing of the feasibility of using PV to provide opportunities for meaningful engagement of older people to enable them to represent themselves and be heard locally, nationally and internationally”. The focus here is on Healthy Ageing and has to do with developing and maintaining the functional ability that enables well-being in older age. Here functional ability consists of the intrinsic capacity of the individual, the environment in which they live and the way the elderly interact with their environment. The functional ability of each person includes being able to be and do what they have reason to value. The PV are produced by the members in a community in collaboration with InsightShare, where Insight’s role in the project was to guide small groups of older people in making films, creating a space for dialogue with local decision-makers and producing documents. The ultimate intention is to produce a transformative change in the lives of the elderly population.

My approach of Innernetz has a lot of similarities to PV method. There is an acknowledgment of elderly and their capabilities: as sources of primary information, capable information collectors and processors, communicators, and prospective change agents. They are donning the role of an insider due to their first hand awareness of the system they occupy. Due to their similarities (within those vast differences) as cohorts, elderly are capable of acting as change agents thus making it clear to themselves, their cohorts, and then the broader community regarding the need for a transformation of their existing situations to better ones. One critical difference is that the focus of the PV process is on Healthy Ageing and my work is on Active Ageing, which I consider is a more open, accessible, flexible, and realistic model of ageing.

10.3.2 Role of design

The role of design and designer is to act as a support in structuring this process of change. When stating my role, I am not qualified as a cohort to understand the nitty gritty of life and living as an elderly. Still, through my research into this system via Play as an Enquiring system, I have created certain awareness regarding this area, especially as seen from the intersection of two cultures. There is a certain know-how of the design process, especially from a play-based perspective, which I have brought into this project. There is a mapping of various critical areas (the 7 different zones) which has its basis on the pre-existing

Active Ageing theories, which was also the basis for the framing of the UN Active Ageing agendas. The perspective of design as a capable Transformative agent, based on the strength of its process, is another strong factor for its inclusion.

10.4 Functioning of Innernetz

10.4.1 Selecting an online ecosystem

In order to achieve the benefits of an exchange involving communication and transfer of thoughts and ideas, the need for participants from both Kerala and Biberach to interact with each other became clear. The necessity of planning such an interaction with minimal latency between the communicating partners also became important. This need for speed in communication could also be attributed to the prevalence of social media platforms in the life of people in both Germany and Kerala. In the case of Kerala, especially after the COVID crisis, the spurt of online activities has made many people social media literate aided with the presence of an affordable smartphone ecosystem and relatively cheap data packages (Basheer, 2020) (Ummer et al., 2021). There have been a lot of initiatives, both by international organisations as well as social media companies, to tackle health related issues via online communication channels (United Nations, n.d.). This is not without the pitfalls of online misinformation campaigns (Pirang, 2020). During my enquiry regarding the usage of online activities, an overwhelming proportion of participants in Kerala had access to a smartphone with an Android Operating System. Only a few people had access to Tablets or Laptops at home. In Germany, this was rather mixed with a majority of participants having Android OS, closely followed by Apple's OS. The prevalence of tablets or personal computers were also higher than in Kerala. Hence, I decided to go ahead with an Android based online application, focusing on smartphones. It would have been better to have a system capable of working on all the devices and operating systems. But the cost and time required to do the coding and managing the data was getting prohibitive leaving me with the option of sticking to an Android based smartphone ecosystem.

10.4.2 Selection of the structure and content for the App

An Android based prototypical App, called Innernetz, was created as a space that will be bringing together people from the two different parts of the world. This was supposed to create and contribute to sharable reflections, coming up with transformative learnings and most importantly, provide an Engaging environment. Then I started focusing on the contents defining this system. It became clear from the beginning not to make it into another social media application. The reason being:

1.0 Specificity of topic: It had a focus on ageing, especially Active Ageing for people between 60 and 75 years old belonging to the middle economic category.

2.0 Specificity of contexts: The space of enquiry was limited to two geographic locations, i.e. Biberach and Thalayolaparambu.

3.0 A sense of security and privacy (with the application): From my experiences in the interview stage using Lego (which used a life course perspective), there arose a need

to protect the privacy of the participants and provide them with a safe environment to discuss various aspects around their lives and living. This App had to ensure a similar sense of safety and security to its users.

4.0 Issues with hosting an App: Considering the privacy and data security, I needed to account for the terms and conditions as well as costs involved from external hosting platforms.

5.0 A robust back end system for managing the user interactions: The need for a robust back end system which could monitor and manage multiple users was another time taking and costly development. The need to accommodate conversations, and probably narratives would have required complex computing processes involving Artificial Intelligence (AI) based language systems. It was not feasible to complete the programming and user testing processes within the available time and resources.

6.0 Not creating “another game”: There were concerns regarding the processing power of smartphones used, especially in Kerala. The gestation period of game development, the lack of awareness of online gaming in this age group, especially in Kerala, played a crucial role in dropping this approach.

Hence it was decided to have an online platform in the form of an Android App which will facilitate a one to one interaction between participants with no provision for a third participant to access this data while the interaction was evolving. It was decided to make use of the zones (used earlier during the interview phase) due to the breadth of topics on activities and Active Ageing that could be accommodated. It was relooked on the basis of the experience from the participant interview stage and optimised to accommodate 7 individual zones instead of 9.

10.4.3 Creating an Interface for the App

The following aspects were factored in creating the interface.

1.0 Retaining the concept of prioritisation of information: The possibility of segregating information on the basis of its relevance had to be implemented in each zone. This approach is similar to the dotted red middle line in the Lego base plate.

2.0 The aspect of time and emotion: Given the spectrum of temporality and emotional weightage of concepts discussed in the information collection phase, a way had to be found to represent this here as well.

3.0 Means of evolving a narrative: A way to bring together various aspects inside each zone or even between zones into a coherent narrative unit had to be considered.

4.0 Role of designer: The role of designer as a “transformatory interlocutor” maintaining the flow and balance of evolving narratives had to be defined. This also involved balancing the power equation of the designer with the participants in evolving the process and continuing the discussions.

5.0 Possibility of information sharing: There was a need to construct a clear and concise way of bringing together the various aspects discussed in each zone as well as create a channel of exchange between the participants.

6.0 Considering the age factor: The need to come up with an age friendly interface was another concern.

Given my background in Industrial Design and also with Game Design related works, I had some experience in guiding student projects in terms of game flow, game strategies etc, but doing an interface ground up was new to me. And I had no experience in game programming, especially with Unity or similar ecosystems. So, I had to rely on someone else's resources (time, money, and expertise) to get my prototype functioning. My conversation with a couple of former students of mine, who currently work in the area of game design, gave me confidence in taking up this task. I learned to work with the collaborative web application for interface design work, Figma (Figma, n.d.), to create wireframes and structuring the User Interface. As a result of constraints due to time and other resources there was no elaborate design process conducted before arriving at the final User Interaction and User Interface for this prototypical App. This is also the case with defining the colour scheme for the various graphic elements as well as the design/selection of the pictograms. I fell back on my experience as a designer while doing this step of my project. Another aspect regarding the selection of colour in such a project is the sheer complexity arising due to the cultural meanings of colours. Diversity within cultures (especially in Kerala) and across the cultures regarding the use of colours could have called for an elaborate design process which would not have been feasible given the objectives of my project and the schedules I was working on. Hence I had to define the graphic elements (pictograms, colours, placement etc.) more or less like a rule which all the participants abide by. The possibility to edit the names of the pictograms was one aspect in the design development which offered flexibility and contextuality to the topics according to participants' taste and perception. The interview stages provided me with the confidence to use a defined criteria of colours as well as redefining the number of zones (7 instead of 9).

10.5 The final prototype

After multiple iterations, it was decided to introduce a circular interface with the personal zone in the centre and the remaining 6 zones arranged around this as shown in the fig. 10.1. Each of these zones were further divided into 4 concentric circles (for the central zone) or 4 equal sections (for the other remaining zones).

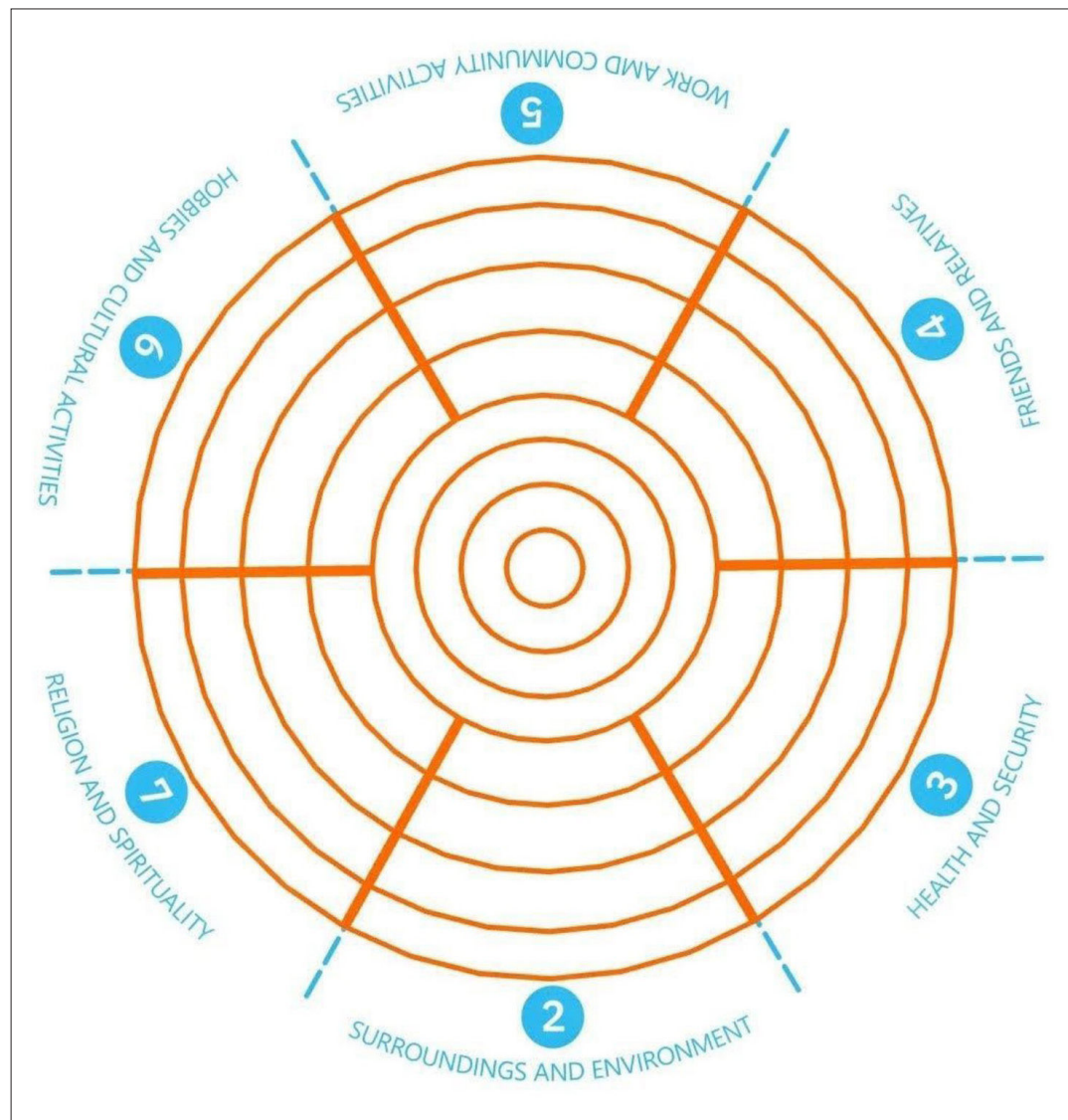


Fig. 10.1: The central Personal zone and the 6 other zones surrounding it. Each of the zones are further divided into four parts.

The circular interface of initial prototypes was a two-dimensional one, which was improved into a three-dimensional, dome shaped one as in fig. 10.2. This was done to improve visibility and interactivity. This could be rotated as well as tilted with a pinch and zoom facility.

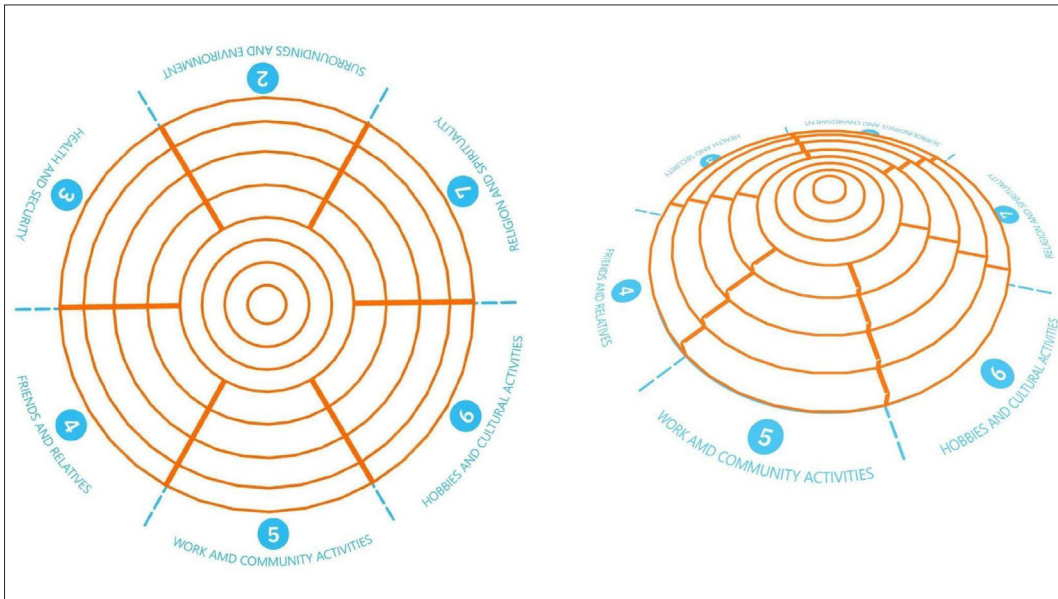


Fig. 10.2: The top view showing a circular arrangement of zones changes into a dome shaped isometric view, facilitating easy arrangement and identification of objects in each zone.

For example, In the case of the personal zone (zone 1), the central most circle has the most relevance than the outermost, with relevance or the value decreasing by one fourth (that is why there are 4 divisions) while moving to the periphery as in fig. 10.3. In the case of the two shapes, the blue square and the blue circle represented in fig. 10.3, the blue square, which is placed in the central most part of the circle, has the most relevance in comparison to the blue circle on the periphery. Hence the distance from the centre defines its value or relevance.

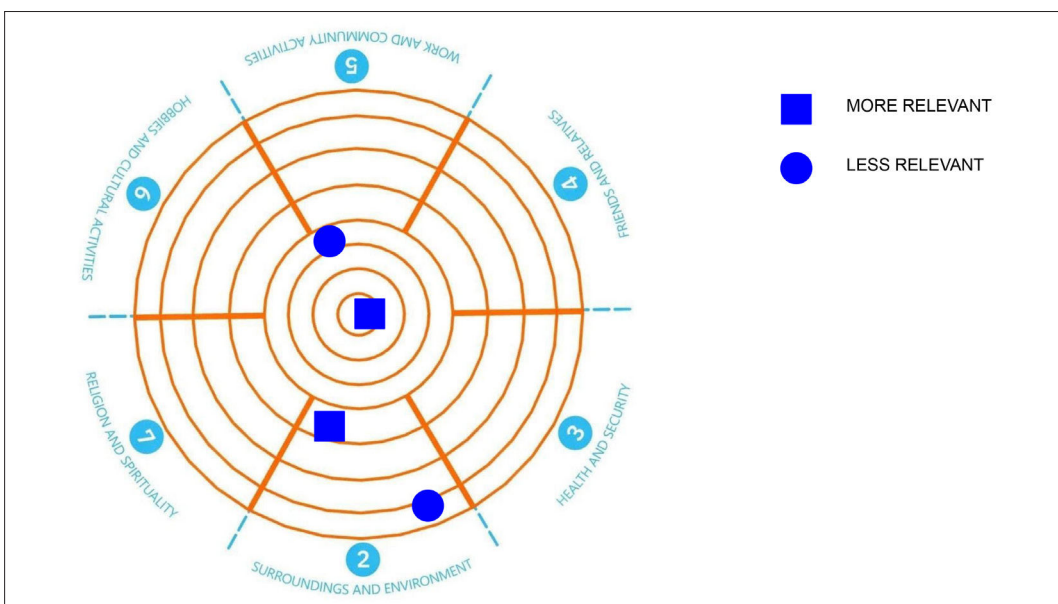


Fig. 10.3: The relation of relevance for each zone in the Innernetz interface.

Upon tapping using the finger inside any of the zones, it will lead the participants to a more detailed screen with predefined signs / pictograms and an editable explanation as in fig. 10.4.

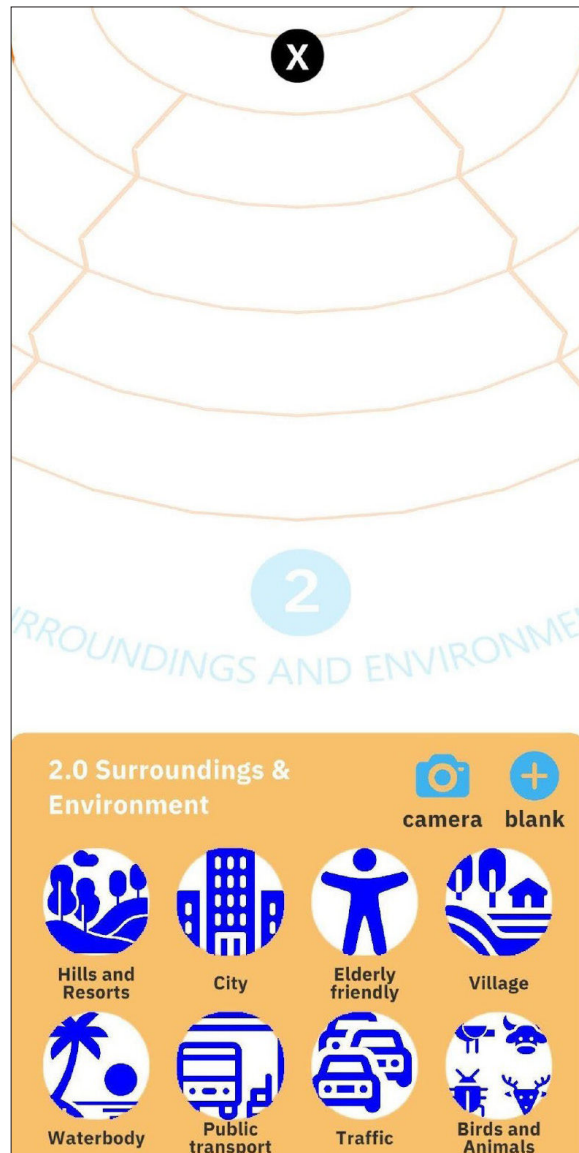


Fig. 10.4: This screen details 8 separate pictograms (e.g. Hills and Resorts, City etc.) which are already provided with editable names. Hence in the case of the pictogram with city, a participant can edit the name, City, to another name they want to provide, e.g. Flat system, Bank etc. The Camera sign helps the participants upload a picture directly from their device and the Blank pictogram helps give name to the participants own definition of a sign or scenario they want to explain.

There is also a Camera sign, where the participants could add their own pictures (originally planned for a maximum of 5 pictures at a time but later reduced to only one picture) which is linked to their device camera folder along with its own caption. Due to certain technical issues and also concerns related to privacy, the option of providing a video linkage was not taken forward. There is another pictogram called Blank which gives the option for the participant to put a pictogram and explanation of their choice.

Upon touching any of these pictograms, a pop-up option, known as Flags, comes up as in fig. 10.5. The selected pictograms will lead the participants to make another set of choices. This is regarding the time period and emotions.

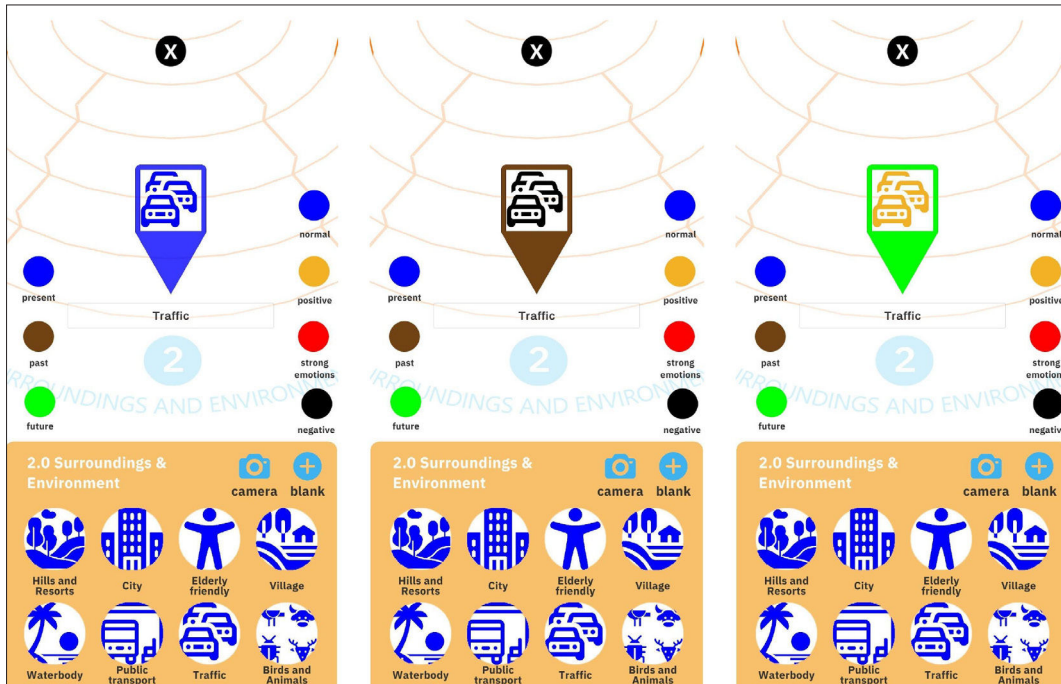


Fig. 10.5: On touching the Traffic pictogram, a blue coloured default symbol called Flag pops up. By using any of the 3 small dots on the left, a person can select the colour of the outer rim of the Flag. This indicates a corresponding time period. They can also select one colour from the 4 small dots on the right to indicate a corresponding emotion for the inner pictogram.

E.g., in the fig. 10.5, if the participant touches the Traffic pictogram, a default Flag will pop up with a blue coloured outer rim and a similar blue coloured pictogram of cars inside. The participant can construct a narrative regarding the current traffic situation (colour blue of the rim of the Flag) as normal and manageable (colour blue of the vehicles to indicate normalcy). If the participant wants to indicate that in the past the traffic situation was worse (a negative emotion), then she has to select sepia (for past) thus colouring the outer rim in sepia and touch the black dot colouring the blue pictogram into black. If the concept is regarding a better traffic situation in the future, then the green colour is selected to indicate the future and followed by the selection of the golden colour to indicate a positiveness, as shown in the figure.

In the case of the Blank pictograms, there are no provisions to select individual graphics as with other pictograms. There is a default blue coloured circle (instead of pictograms) surrounded by a blue rim which can be customised to indicate corresponding topics. The name can be edited to suit the concept represented. E.g., in the fig. 10.6, consider an elderly person expressing her views on the health of a river passing through her village. There are no symbols directly pertaining to this topic. One can express the same using the pictogram of the waterbody. But if the person wants to be very specific, then it can be expressed using Blank. She can indicate concepts like the current state of the river as good (blue colour), the polluted status in the past (sepia and red) and the hope that it will stay like it is now in future (green and blue).

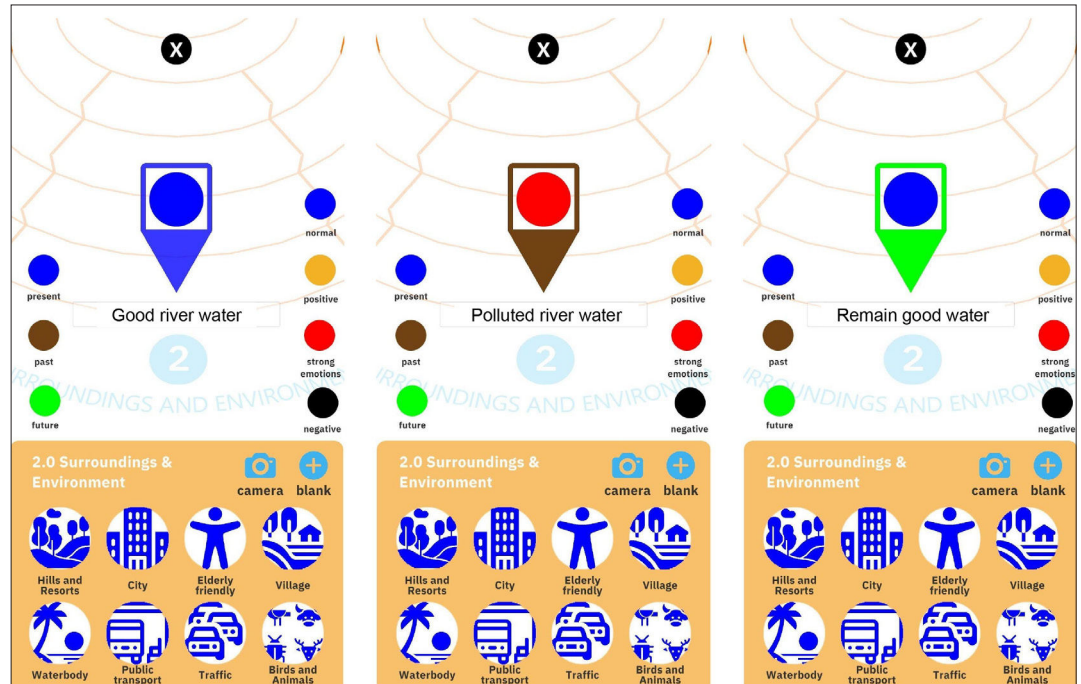


Fig. 10.6: The concept expressed is the health of a river in three time periods. The extreme left one indicates a good safe water, the middle one, it's polluted past, and the right one expresses the hope of having good water in the future as well.

The different zones and the pictograms related to it as used in the app are as follows as in fig. 10.7.





Fig. 10.7: The 7-different zones and the respective pictograms used in Innernetz

10.6 The working of Innernetz

The initial idea of creating Innernetz in all the three languages (English, Malayalam, and German) had to be curtailed due to production related issues. English was selected as the default language. The participants were briefed in person or via video calls regarding the app and the way to engage with it. They were also given a document containing the information expected out of each zone. The participants were provided a pseudo name concealing their identity. There was also an expectation not to reveal their identity through pictures. The selection of partners was done by me considering their area of interest and life stories, which I already had access to from the interviews. After taking the permission to participate, the app was downloaded on the participant's smartphone. They had to give permission for data collection for my project in order to get access to it. This was done as tick marks after the welcome screen. The welcome screen for the app

is as shown in the fig. 10.8. On clicking the Innernetz bar, it takes the participants to the main circle as shown in fig. 10.1.

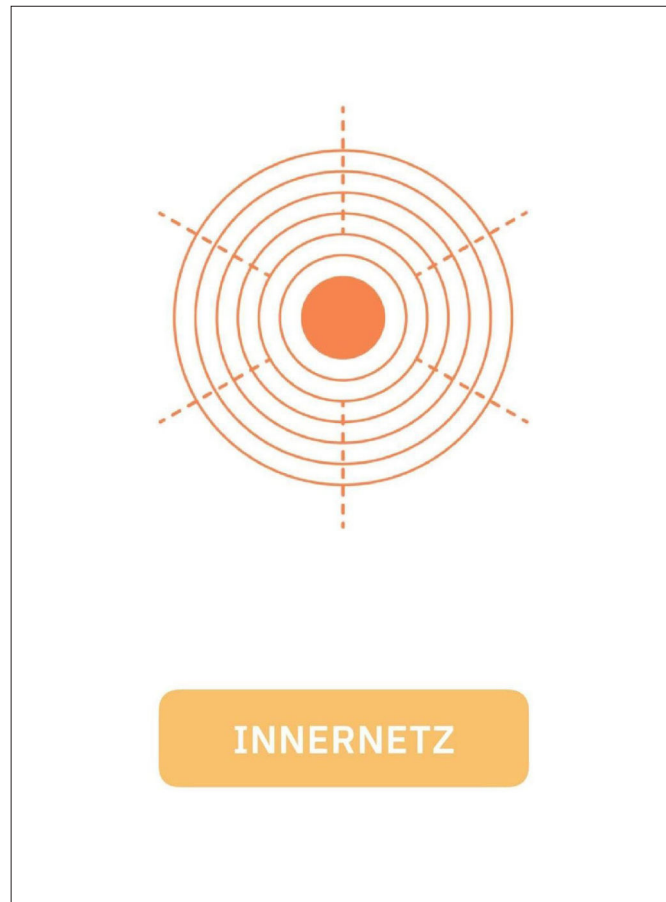


Fig. 10.8: The welcome screen of Innernetz.

From each zone the participants were asked to share with their partners 5 distinct aspects of their life, with a focus on their present life as seen in fig. 10.13. Even though there were no defined word limits, it was expected to be as concise as possible. There was a conscious effort to avoid capturing the broad and diverse personal experiences into bland bullet points. The effort was rather to explore the possibility to present oneself using a written medium supplemented by suitable pictograms and pictures. The possibility to connect seamlessly between various contexts and contents of human experiences, that too in a communicative manner, was a possibility a narrative offered from its construct. By comparing oneself with own partner's narrative, Innernetz offers a possibility to look back into one's own life. It provides an opportunity to bring out the commonalities and divergences, the coalescence and dissonances along with the strengths and weaknesses of an existing way of living. The possibilities to ask for clarifications or offer acknowledgement of certain positions may occur more seamlessly when told from a narrative perspective with dialogues taking a prominent position as mode of exchanges. The sense of an informal intimacy with relative anonymity as well as a shared space for reflexivity was considered as an added advantage.

One of the main reasons for keeping only five aspects (topics, which can be selected as Flags) was due to the lower interactive screen space of a smartphone. It was getting overcrowded and difficult to discern once more flags were added to the circles. I could make out from my previous study using Lego that in terms of individual content, five seemed to be a good average as well. Based on these aspects, the participants select the corresponding pictograms and place them on the corresponding circle in the zones. This is placed based on the priority of their choices. The placement is done by drag and drop mechanism where the Flags can be dragged on to the corresponding spaces in the circle as in fig. 10.9. It is also possible to drag and place it in any other circle as well.

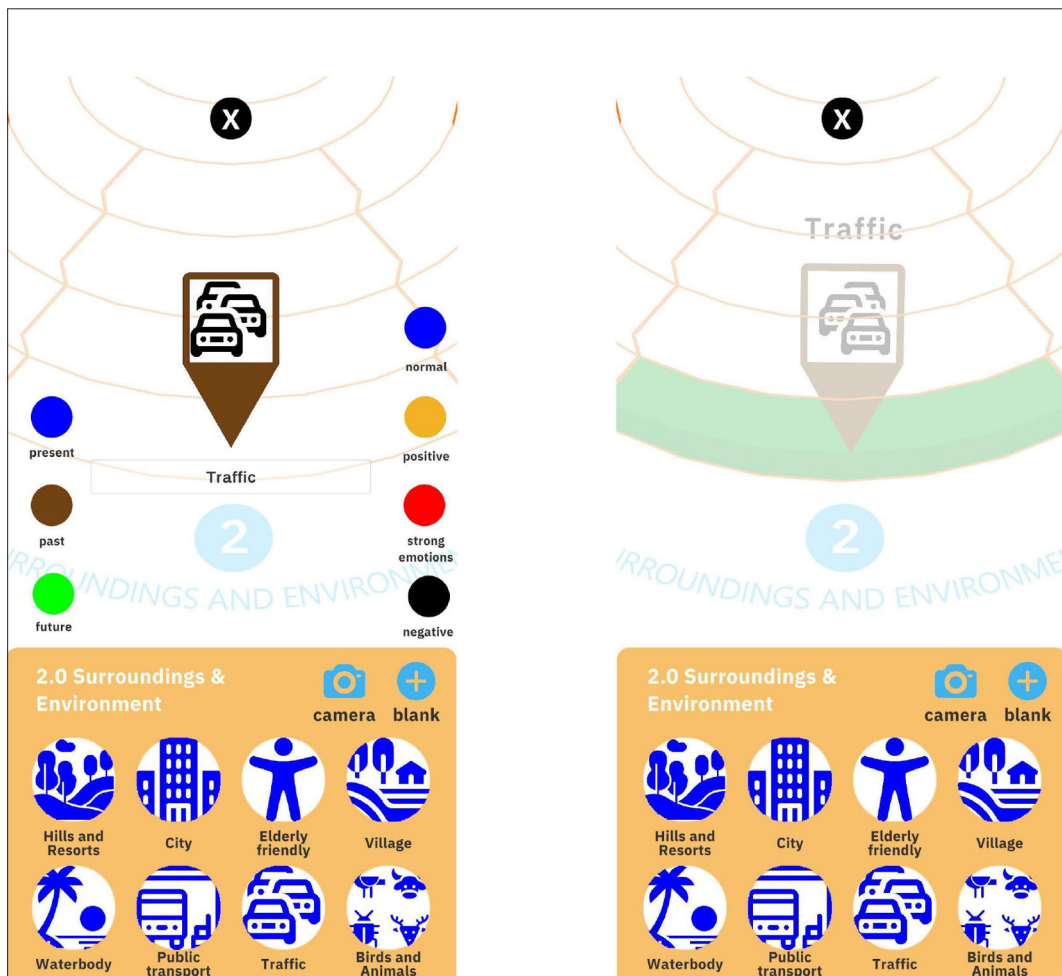


Fig. 10.9: The Flag of Traffic is selected and arranged to indicate the bad traffic scenario as existed in the past. When dragged and dropped onto the circle, it becomes slightly opaque as seen on the figure on the right hand side. Here it is placed on the outermost circle, indicating lesser prominence in comparison to the other concepts that may come inside.

Once all the zones that the participants want to represent are covered and finalised, they could use the upload button to upload those arrangements to their partner's smartphone as in fig. 10.10.

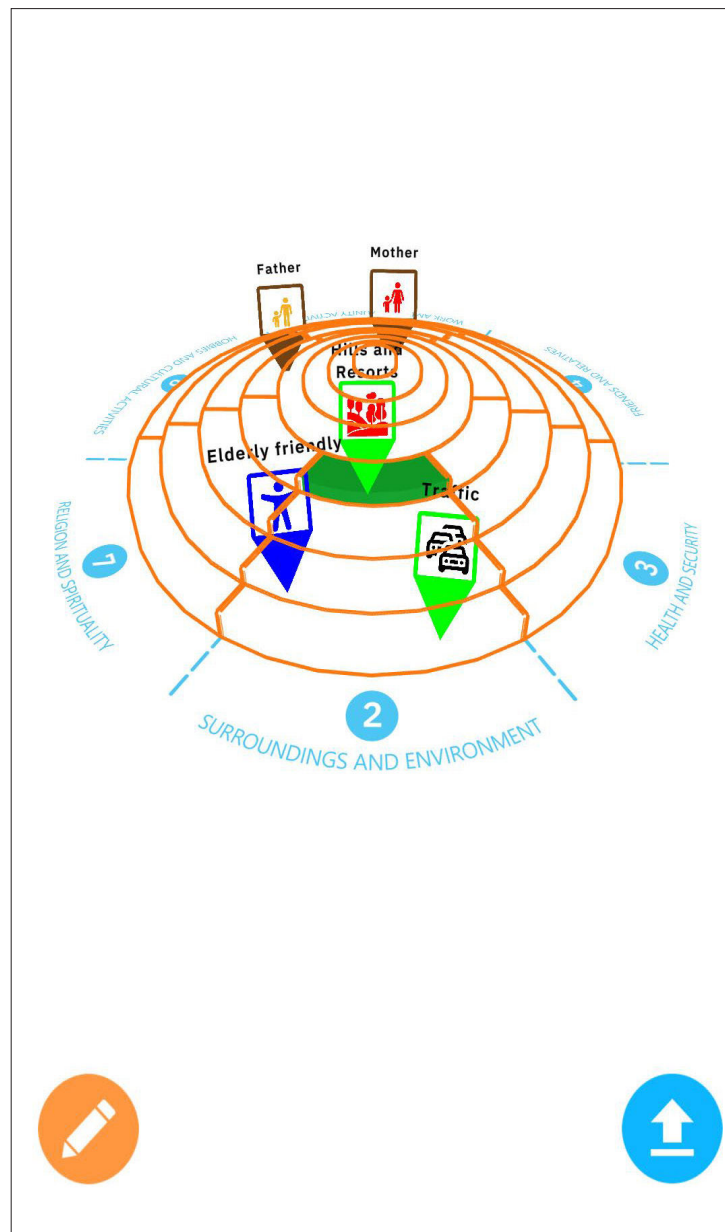


Fig. 10.10: On pressing the blue arrow button on the bottom right of the screen, all the contents are uploaded to the back-end program created on my computer. A copy of this file is created on the individual smartphone as well.

There is also an edit button to make changes to any of the Flags once they are dragged and dropped on any of the circles as in fig. 10.11. For example, if the Flag to be edited is identified, one needs to touch on the orange coloured edit button, which is present on the bottom left corner of the screen. This creates a black coloured editable sign on top of all the Flags as seen in the picture on the left. On touching this black sign on the specific Flag, a new screen with editable possibilities like changing colour, adding pictures, deleting etc. pops up. Once the editing is complete, one needs to touch the black cross button (on top) to go back to the main screen.

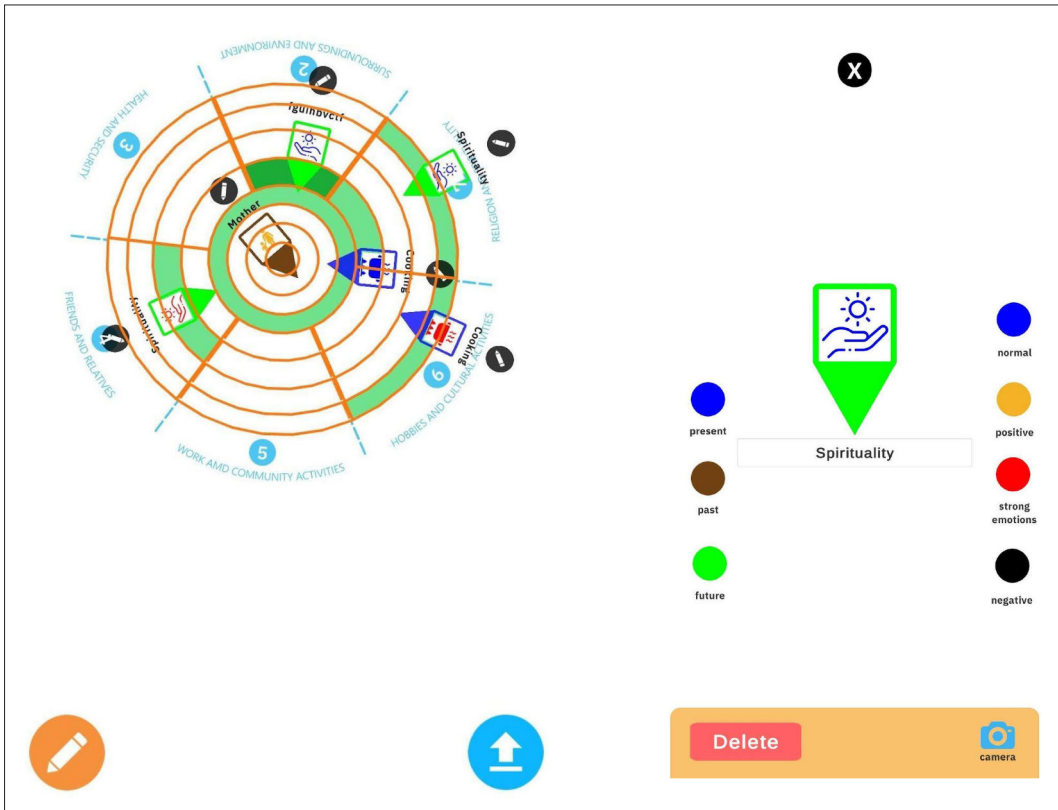


Fig. 10.11: Editing button on the left-hand bottom corner (orange button) gives access to the editing screen. The small black dots on each Flag, as seen over the Flags on the left corner indicates the readiness to edit a Flag. On touching the specific Flag to be edited, a new screen as seen on the right pops up with various editing features like changing colour, adding pictures, and deleting.

The possibility of using voice typing was explored. This couldn't be implemented because of the technical challenge to translate seamlessly from German to Malayalam or vice versa and also the difficulty to convert voices in two different languages (Malayalam and German) to English text without failure. And I felt writing to be a concise and precise manner of capturing a topic as opposed to a voice related means of communication.

Another aspect that was considered, but not implemented, was regarding the nature of sharing the information. The initial idea was to have a two-layer narrative system, where the first layer consisted of creating a narrative for self (*Share to self*) and then creating another one which can be shared with the partner (*Share with others*) as in fig. 10.12.

I constructed those interfaces with a different design of flags. This was later dropped in favour of a default Share to others option due to the challenges of making it function within the given time.



Fig. 10.12: The design selected for the Share to self-option of the flag. This was later dropped to make way for only one option, which is a default Share with others option.

In the final prototype, I had to make a few more choices considering the time it was taking to finish the programming and detailing part. A basic back end system required to process the information already uploaded by the participants was completed on the Unity platform. This allowed me to see on my computer what was getting uploaded by each participant from their smartphones. But the story construction phase done by the participants using their smartphone hit a roadblock due to the above-mentioned programming issue. Here, I decided to do the interfacing between the partners as well as help them visualise their narratives once they finalised and uploaded their representation from their individual smartphones. For that I created a PowerPoint file as in fig. 10.13 with provision for visualising all the 5 different Flags (which is the maximum) and the 4 different gradations (regarding its relevance) of the Flags created. On the basis of the location a Flag has in a given zone, the PowerPoint file replicates this relevance accordingly. After completing the representation, this is shared with the concerned participant for a cross check and then necessary changes are made.

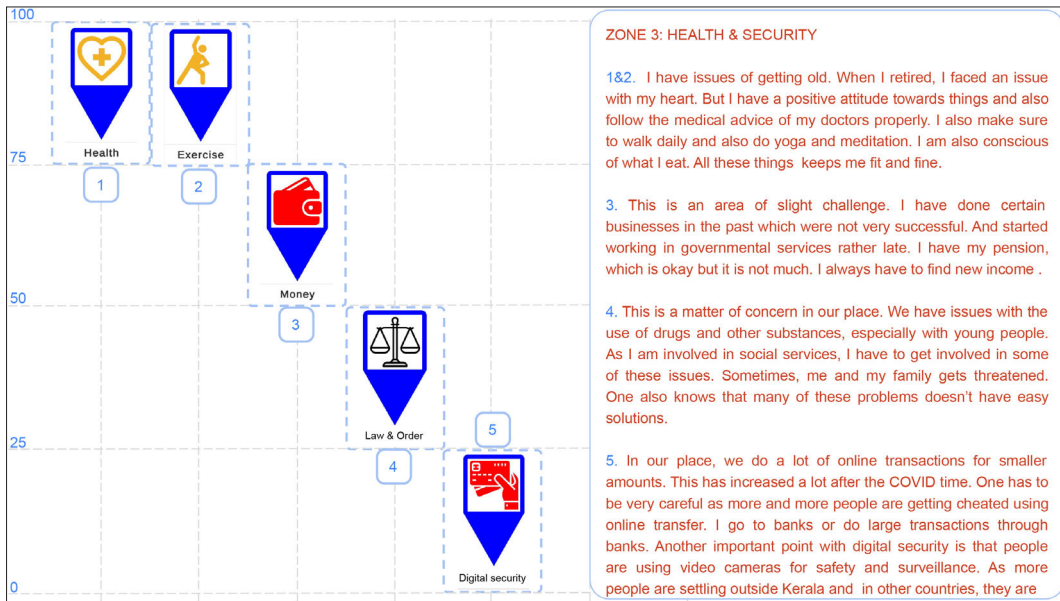


Fig. 10.13: The representation of Ajith from Kerala for zone 3, which is about his views on the topic of health and security. This along with the representations from the other zones are forwarded to his German partner, Henry. This is reflected on by Henry with subsequent queries, if any. Ajit receives Henry's representation from Biberach in the meantime. Most of the time I received written texts from the participants regarding their representation. Sometimes voice messages and a couple of times direct voice bites from the participants, which I had to translate into German and also fine tune to be presented as a narrative. This was conveyed to the participant for cross checks before forwarding to the corresponding partner.

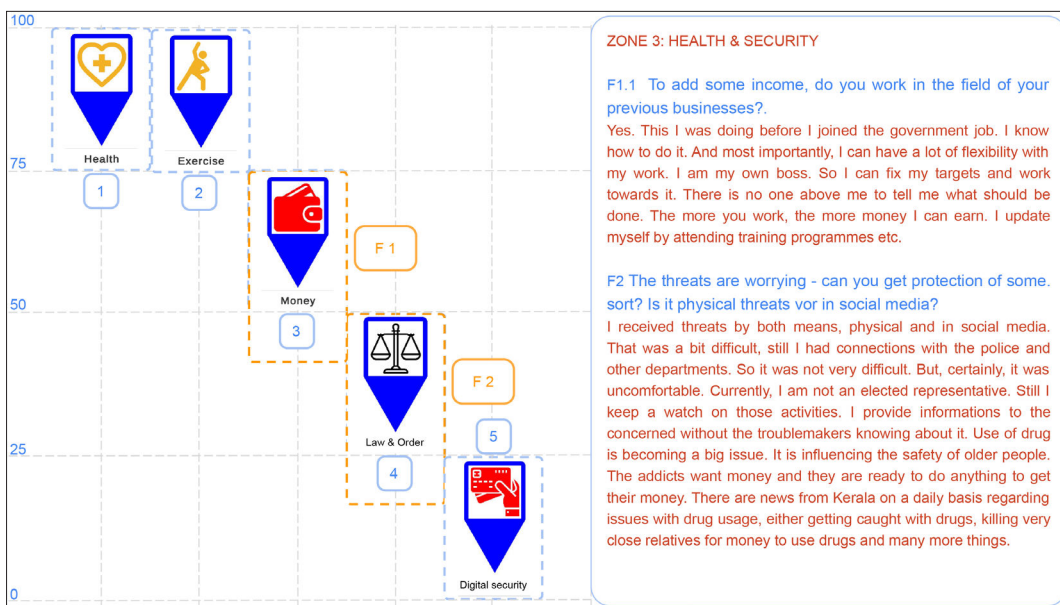


Fig. 10.14: Henry reflects on two aspects from Ajith's representation on Zone 3, The blue coloured questions are from Henry, where Ajith provides his answers. F1 and F2 are called Frames, which are spaces for raising questions, queries, concerns, observations etc.

In this interface there were provisions for including the photographs participants want to exchange with one another as in fig. 10.15 regarding their surroundings or their food habits etc.



Fig. 10.15: Possibility to incorporate photographs from the participants in the file concerning a special topic.

It was not possible to derive anything just by observing the set of Flags in a certain order. Hence the story or narrative the participant wanted to incorporate for a given zone is conveyed to me either via email or through voice call. This is placed inside the document by me, which is again approved by the concerned participant. Upon the final approval, this file is sent to the corresponding partner as an email or other messaging options that are secure. The partner has the possibility to comment on two separate Flags on each zone. These Flags, here denoted as Frames, are indicated as F1 and F2. This is returned to the first participant for the next stage of response as seen in the figure 10.14. A couple of back and forths happened on those or other relevant topics before this interaction ceased to exist.

As an observer as well as a coordinator to these interactions, I had access to the back and forth happening between the participants. I could take notes on certain topics which I felt were unattended or could be elaborated. These were reframed as queries from my side addressing the participants (please check below Sajith's queries to Samira regarding her interactions with Hilda). I took the essence of the communications between both partners, but also added aspects I saw in other conversations and also certain general

topics I felt could add value to those topics. Some of the questions were direct indicating a possible direction or solution, while others were generic, leading to a widening of awareness or opening up for further scrutiny. There were overlapping questions as well as specific ones depending on Innernetz stories and the preceding exchanges that transpired. Once I received all the responses from the participants, I compiled them, translated those into German and English. This along with the initial conversations (Annex Innernetz stories) were shared between all the participants after taking permission from them. The idea was that these, along with the earlier exchanges, could become an implicit source of knowledge and information which has the potential to inspire new thoughts or ideas in the mind of the participants and possibly a new way of creating more lasting improvements in their lives. This stage happened over the duration of three months, from the start of July 2023 (where I sensitised the participants regarding the App and the broader means of engagement) till the end of September 2023. Even though I shared the stories of all the participants with one another, I didn't receive any further queries or clarifications from any of the participants regarding them. After these exchanges, I informed the participants about the closure of this project.

Sajith's queries (in orange colour) to Samira

Zone: 1

3. Hilda and her son seem to have some difficulties in their relationship. Such things could happen in Thalayolaparambu as well? How are people able to handle such difficulties in Thalayolaparambu?

People often do something for their grandchildren. They visit them or even stay with them more often than I think in Germany. Here grandparents provide some financial help, if needed, for their children or grandchildren. The grandparents do a lot of adjustments and make compromises on their own wishes. They tolerate a lot to avoid conflicts. This happens with people who have money and are not dependent on their children. They do things to make the grandchildren happy.

4. In Hilda's life pets offer a lot of comfort. In Thalayolaparambu, can pets living at home offer such comfort to many elderly who are lonely?

Here pets, especially dogs, are rarely kept inside the home. They don't like them too much. Mostly, they are used as guard dogs and kept in the cage or chained to something near the house.

People have their families or grandchildren around or live with their grandchildren. So they don't feel too much loneliness.

Zone: 2

3. What offers are there for elderly in the town nearby? What are the two things that you think should change here in Thalayolaparambu?

1. I feel Thalayolaparambu should offer more opportunities for its elderly. There should be facilities for the elderly people to go, meet, talk with other elderly people. This space should have some library, some games. Basically somewhere one feels safe and happy.

2. I feel they should think about creating elderly homes, not only homes for destitutes. This could happen with governmental help and can function for 3 or 4 panchayats where elderly people could go and stay.

4. Do you think learning to drive could make a difference to your life now? If so, what change could happen to you? What could be the challenge you may face to learn to drive?

I can save time and don't have to depend on others.

My children don't allow me to drive because they feel that the traffic is not good, and I will make some accidents. They fear this and hence don't allow me to drive.

For driving two or four wheelers, there are no big social challenges for me. But there are also men nearby who don't like their women to drive vehicles.

Zone 3:

5. Can you imagine living your life in an old age home or a similar arrangement? If you have to spend your life there, how do you imagine that facility to function? As you get older, do you have any other idea in your mind to spend your life ahead?

Currently, I don't want to go to an old age home. I really like my house and its surroundings. I really like my village. But, when I am weak and dependent on others, then I may consider going to an old age home.

I would like a home stay facility where like-minded people could come and stay in others houses. This could be for only a few days. They could eat, chat, play games, discuss things etc and feel happy. Then they go to some other house. One should be careful in selecting such people. One shouldn't become a burden to others. It should not be about taking care of people having health issues. But I feel that such things are difficult to happen in my place.

Zone 4:

3. What are the volunteering opportunities you have in your place?

There are no such volunteering opportunities available in our village. I am currently part of a group of women called "Kudumbasree", in organising the finances. But otherwise, I don't get to know about any opportunities. In my community and in this locality there is some difficulty to work as a volunteer.

4. Do you go to a restaurant or a place with your friends where you could sit and talk? Is there a culture of meeting your friends with family or alone in some common place (here I am talking about places like Thalayolaparambu, not Kochi or Kottayam), like restaurants where you sit, chat, and enjoy the time together?

It is not very common for us to go and sit in a restaurant and talk. I am interested in doing this, maybe 2 or 3 times a month. I meet with some friends once a year for such talks. When we have our children or family members at home, it will be a problem when I decide to meet my friends alone in a restaurant outside. This will be an issue within my family or even the society nearby. This I believe is the same for other families as well.

Zone 6:

5.1 What opportunities do you have in the place you live to enjoy cultural activities? There are people who like to read. Are there discussions or debates about books in your place? Earlier we had local libraries. Nowadays, these are not functioning well. While working, I used to discuss books with my travel friends. Sometimes I discuss books with my friends over the telephone. My daughter likes to read. So I discussed it with her as well. Those face to face discussions are not happening any more.

5.2 There are a large number of traditional as well as other forms of dances? Are there such opportunities for elders to participate? Is there something that limits things from happening?

In our place, those facilities are not available. This might be possible in bigger cities like Kochi or Kottayam. There is a group of women, between 40 and 55 years old, in our locality who are making an effort to dance. This is a very new group and are trying a mix of traditional and cinematic dance. But for people of my age, there are no such things available.

For many men, it is still a difficult subject. They will brand us “being too carefree” or “being irresponsible” (colloquially called as Azhinjaadi Nadakkuka).

5.3. There are many elderly who visit other countries? Do they exchange their travel stories or any of their observations in a formal manner, like making a short presentation or a talk or discussion?

No, we don't have such groups or discussions in our place. I am thinking about this seriously. I might go abroad for a few months. And I would like to make a presentation to others, regarding my experiences. I want to write those things down and also capture some pictures.

5.4. Is there a discussion that one conducts as a group regarding a new movie one saw? basically sharing our opinion?

There are no formal groups. I talk with my friends in an informal manner.

Zone 7:

1. Is there one thing the religious institutions in your place should do to make the life of the elderly better?

I feel this has to improve a lot in my religion. In my place Christian communities, especially through church, are engaged in activities related to elderly. Here women are involved in those initiatives. In the case of my faith, there are no such initiatives in our place, where elderly women can also become active.

Phase 3. Findings from the project

Chapter 11: Findings from Innernetz

The various exchanges that happened on Innernetz provided an exciting opportunity for the participants to get a brief acquaintance about each other's lives as well as certain happenings and concerns related to it. These exchanges also had a temporal element with discussion ranging from the present to the future with certain references to their backgrounds originating in the past. Upon analysing a given set of information, as a process, design has the ability to deal with possibilities and opportunities in the form of projections. It could be in the form of ideas or proposals with an immediate transformational possibility (defined boundary condition) to that requiring more complex personal as well as social transformational capacities (porous or flexible boundary conditions). My role here was like an interface/mediator and at times an irritant to the ongoing discussions. This along with my previous experience of interviewing participants using Lego based methods provided me with a different overview to the process that transpired. This will be captured here from two broader perspectives of Thalayolaparambu and Biberach based on the responses offered by the participants while using Innernetz. For the ease of identification, I am coding the conversations with the colour blue for Biberach, red for Thalayolaparambu and orange for mine.

11.1 Findings from Thalayolaparambu

11.1.1 Chaotic traffic situation influencing personal choices

In the case of Samira, she has the possibility to enrol in a driving school and get a driving licence for a four-wheeler. She states the poor traffic situation along with poor adherence to traffic rules as a deterrent to her driving two wheelers in her vicinity. This factor came out as a response to the question raised by her partner Hilda. Here, Samira even expresses her hope of walking without fear on a new road being laid. This "expression of hope" by Samira is also indicative of the non-participatory nature of decision making existing within her locality, especially regarding the matter of elderly.

F 1 Q3.1. Is there no protection for pedestrians? Traffic lights? Zebra crossings?

In our village roads and even in the town near us, there are only a few facilities for elder people. There are no traffic signals inside the town. There are one or two zebra crossings. But no one will stop and wait till you cross. Those things you will find in bigger towns or cities. Due to the constant presence of traffic cameras, police etc. people obey the rules. There are no specific parking spaces for vehicles inside the small towns. This leads to traffic problems for everyone. You don't feel safe while walking inside the town nearby. I don't know exactly how many people live inside the town, but the town and around has

around 22, 500 people in 19.3 sq kilometres. We are getting a new road near our village. So we hope that there will be better facilities for people to walk and travel. Story Ker/Story Samira/ 2.0 Story:Ke - Samira/Page 3.

11.1.2 Interdependent decision making processes

Samira is interested in reclaiming her independence of mobility and saving time by learning to ride four wheelers. Samira has the resources (time, finances, inclination etc) to learn to drive. But the opposition from her immediate family, due to their traffic safety concerns, is her biggest deterrent. Samira's perception of the traffic situation as unruly and non-empathetic is also accurate. In previous interviews using Lego, many participants from Kerala had raised a similar concern as well. Despite Samira's age and experience, there seems to be a need of getting approval from the near and dear ones for one's own personal activities, thus revealing a complex mechanism of decision making. This is very contrasting to the way decisions are taken in Biberach as seen from the following discussions between Samira and her partner Hilda.

4. Do you think learning to drive could make a difference to your life now? If so, what change could happen to you? What could be the challenge you may face to learn to drive?
I can save time and don't have to depend on others. My children don't allow me to drive because they feel that the traffic is not good, and I will make some accidents. They fear this and hence don't allow me to drive. Innernetz: The stories and more/1.0 Samira Thalayolaparambu/EN DE Samira: few more avenues/Page 1.0.

Samira, at the same time, seems to be encouraged by the independence of her partner, Hilda, who is able to manage a lot of her activities independently. The presence of a vehicle allows Hilda to be flexible with her activities, despite her own mobility issues as seen here from Samira's queries as being answered by Hilda.

F 1 Q4 I consider myself to be an independent person. Still I require and also take help from others when I need them. In your case, you live alone, lead a life of independence, use your own vehicle to do your things. Is this a part of your culture? Or is it something that you have as your character? This I find very interesting to know.

In our culture it is common that women also live independently, work, drive cars, and do all the things that men do. This is part of European culture. It is not experienced in the same way in all European countries. But In Germany, this way of life is very common. There are no restrictions for me as a woman. Story BC/Story Hilda/ 2.0 Story:Ge - Hilda/ Page 4.

This also reveals a contextual nature of the concept of independence. Samira, who considers herself as independent in the way she lived her life and made her decisions, is dependent on her children's decision to learn to drive. This contrasts greatly with the concept of Independence as experienced in Biberach, which Hilda also attributes to European culture, where decisions are more individual driven. This is also illustrated from the discussion Samira has with me. I asked Samira regarding the possibility of going out and meeting friends in a local cafe. Despite her willingness to do so, she fears that this will not be accepted by her family and society, especially when her family members are around.

4. Do you go to a restaurant or a place with your friends where you could sit and talk? Is there a culture of meeting your friends with family or alone in some common place (here I am talking about places like Thalayolaparambu, not Kochi or Kottayam), like restaurants where you sit, chat and enjoy the time together?

It is not very common for us to go and sit in a restaurant and talk. I am interested in doing this, maybe 2 or 3 times a month. I meet with some friends once a year for such talks.

When we have our children or family members at home, it will be a problem when I decide to meet my friends alone in a restaurant outside. This will be an issue within my family or even the society nearby. This I believe is the same for other families as well. Innernetz: The stories and more/1.0 Samira Thalayolaparambu/EN DE Samira: few more avenues/Page 2.0.

In terms of an emancipatory Active Ageing context, the following is derived from my interactions with Samira during the interview stages, the discussions we had in between our interviews and also by discussing on the current set of queries she received from Hilda. Here, the way she perceives her independence is a more bounded or an interlinked concept consisting of herself, immediate family members and to some extent the societal concerns. This is quite different from the way Hilda approaches the same concept (see her answer to Samira). A decision of Samira has to go way beyond personal inclinations and capacities. This is in line with Hofstede's (2010, 28) cultural dimensions of collectivism versus individualism. In this context, I may call Samira's as an interdependent decision making as compared to Hilda's independent decision making. This could also be a gendered situation. For a man in a similar position, the layers of resistance seem to be lesser. None of the other two male participants from Thalayolaparambu in Innernetz raised any societal limitations in learning to drive, driving or going out to meet someone. In the case of Manuel the meetings with his friends happen in clubs or at his home as he likes to play a host to such private gatherings.

2&3. I feel very happy when I am with my friends and relatives. I avoid arguments and try to maintain a good relation with everyone. I organise parties for my friends at my house and try my best to make them feel comfortable. I believe that I am good with my jokes. It gives me a lot of joy to see the smile on the face of others. Story Ker/Story Manuel/ 2.0 Story:Ke - Manuel/Page 5.

There is no culture in the locality to go out with friends and sit for long in a cafe to have a chat or discussion. People might be preferring the comforts of their private dwellings for such occasions. In Thalayolaparambu the eateries are used as a practical or functional places to have food (as an individual or with families). There is also an expectation on the customers (from the management running such spaces) to vacate the premises immediately after consuming their orders. And places offering fine dining facilities, which are very expensive for local standards, provide spaces for people to sit and talk. Such facilities are not available in Thalayolaparambu. This then becomes a matter of affordance as well as access. Maybe the informal cultural tendency to drop by and say hello without an elaborate process of taking an appointment (as one sees in Biberach) is something that differentiates these two spaces. This may also be hinting at Dahl's (2004, 11) concept of Monochronic/Polychronic time. The following is Manuel's response to my query on

meeting friends in a common space, like a restaurant.

3. Is there a culture of meeting friends with family in some common place, for e.g., in restaurants where one can sit, chat and spend the time together (in places like Thalayolaparambu, not in bigger cities like Kochi or Kottayam)?

I have never noticed such gatherings in the restaurants in Thalayolaparambu. But friends meet in their houses and have fun. Often this is done in a private way. There are a few clubs in Thalayolaparambu which have monthly family get-togethers. Innernetz: The stories and more/2.0 Manuel Thalayolaparambu/EN DE Manuel: few more avenues/Page 2.0.

This lack of formality could also be one of the reasons why Samira expressed her desire to host other similarly minded cohorts at her home for a few days to exchange and enrich oneself in each other's company. She, at the same time, also expresses her concern regarding the feasibility of this idea as she fears the society won't approve of such a concept. This can be seen as a response to my query.

5. Can you imagine living your life in an old age home or a similar arrangement? If you have to spend your life there, how do you imagine that facility to function? As you get older, do you have any other idea in your mind to spend your life ahead?

Currently, I don't want to go to an old age home. I really like my house and its surroundings. I really like my village. But, when I am weak and dependent on others, then I may consider going to an old age home.

I would like a home stay facility where like-minded people could come and stay in others houses. This could be for only a few days. They could eat, chat, play games, discuss things etc and feel happy. Then they go to some other house. One should be careful in selecting such people. One shouldn't become a burden to others. It should not be about taking care of people having health issues. But I feel that such things are difficult to happen in my place. Innernetz: The stories and more/1.0 Samira Thalayolaparambu/EN DE Samira: few more avenues/Page 2.0.

My project doesn't offer any direct discussions at the intersection of interdependent decision making, gendered nature of decision making and polychronic way of time management. The ability of elderly women to engage in activities within a complex decision making process (interdependent and gendered) coupled with a flexible time concept (polychronicity) is worth exploring. The aspects of caste, religion and monetary resources could add another layer of complexities to the study of such a system.

11.1.3 Lacking avenues of constructive criticism

The tendency of elderly to become self-invisible in a social structure along with an unwillingness to take initiatives could be attributed to the prevailing social tendency of lack of constructive criticism. The fear of being criticised and made fun of in the midst of others without being provided with a proper reason for critique could be a demoralising attribute. This can be seen from my conversation with Manuel in the context of dancing for elderly. This may result in the elderly unwillingness to stand out from the crowd due to the fear of humiliation from others. Manuel attributes such humiliations due to lack of self

confidence in the society. He also observes that people (here, mainly men) shed their lack of confidence only when they are heavily drunk.

1.2: In Kerala there are a large number of traditional as well as other forms of dances? Are there such opportunities for elders to participate in your place? If not, is there anything that limits such things from happening?

Very few people will be dancing. They may do it because of their passion for dance. But most of them are not interested in dancing. I have observed that when people are at a picnic, most often they hesitate to sing or dance in the public. They may do this when they get drunk. It feels like people have a low self-esteem. In Kerala people are criticised quite often (trolled). So if a person is ready to dance, he or she will always think that their dance is not up to the “standards” and also what others might think of them. Because of their lack of confidence, they don’t dare to dance in the public. Innernetz: The stories and more/2.0 Manuel Thalayolaparambu/EN DE Manuel: few more avenues/Page 3.0.

11.1.4 Giving too much importance to others perception

Most of the elderly in Thalayolaparambu are aware about the benefits of exercises as a preventive measure of maintaining health. They are also aware that walking, swimming, or cycling are ways in which one could engage in such exercises. In Thalayolaparambu, despite the presence of different types of water bodies and the know-how (especially in the elderly), there are few takers for swimming. Many men know how to ride bicycles. Here again only a few elderly happen to use them. Manuel attributes the presence of modern facilities at home (running water, other sources of entertainment) as a deterrent from going out for a bath and the image of cycle as a poor man’s product its lacklustre uptake.

2. Is it common for the senior members to go swimming in your place, especially women, even if there are a large number of water bodies in your place? Swimming is considered as a very good exercise for the body. Does this knowledge lead to more people taking up swimming? If swimming is not happening, according to you, what could be the reason?

In earlier times, it was a custom to go to the rivers, ponds, or streams for bathing, washing clothes and also for maintaining social contacts. But nowadays our houses stand studded with modern facilities like elegant bathrooms, washing machines and other facilities people are reluctant to go out. Everybody prefer to be within the premises of their homes. There are so many entertainment facilities in their own houses.

So even though swimming is a good exercise, the people are not ready to go for swimming. Most of the people have other priorities and engagements than swimming.

Innernetz: The stories and more/2.0 Manuel Thalayolaparambu/EN DE Manuel: few more avenues/Page 1.0.

3. Romina could cycle. One sees very few elders, especially women, using cycles in Thalayolaparambu? What prevents them from cycling?

People hesitate to go cycling. People believe that society may underestimate them. If possible, these people prefer motor bikes, scooters, or even electric scooters. Since this is a place where the topography is undulating, this may be another reason. Before the arrival of the scooter, in my young years, cycle was the priority of society. As we progressed, we

preferred mechanised devices (even autorickshaws) for our convenience. “In an advanced society using a cycle is regarded as very cheap”. Innernetz: The stories and more/2.0 Manuel Thalayolaparambu/EN DE Manuel: few more avenues/Page 2.0.

In the case of using bicycles, the presence of uneven terrain and the lack of separate cycling lanes could be considered as critical deterrents when one compares with Germany. But even in places which afford the comfort of riding a bicycle, it might be the social perception of the cycle as a “cheap object”, with a lower value perception when compared to other mechanised and modern modes of commute/transportation, that might be preventing its widespread adoption. The overindulgence of others’ perception of self (what others might think of me riding a cheap bicycle) seems to be a critical factor preventing the widespread use of various modes of visibly engaging physical activities (dancing, cycling, swimming etc).

11.1.5 Lack of awareness about elderly volunteering opportunities

The lack of availability of a suitable space for elderly to volunteer could also be acting as a hindrance to their engagement in the public domain. Samira expressed this concern in her response to my query.

3. What are the volunteering opportunities you have in your place?

There are no such volunteering opportunities available in our village. I am currently part of a group of women called “Kudumbasree”, in organising the finances. But otherwise, I don’t get to know about any opportunities. In my community and in this locality there is some difficulty to work as a volunteer. Innernetz: The stories and more/1.0 Samira Thalayolaparambu/EN DE Samira: few more avenues/Page 2.0.

In Thalayolaparambu, the nature of engaging activities organised through various religious institutions also varies. For Samira, there are a lesser number of activities for women of her faith in comparison to others, who may engage themselves through activities of temple or church.

1,2,3,4. In the case of volunteering done by the senior citizens, do they undertake more managerial or more hands-on activities? Do you feel that conflicts between youngsters and elderly in organisations are increasing, decreasing, or remaining the same as it was earlier?

There are very few seniors who do any voluntary work in organisations. Some may be active in politics. Often people who are working after retirement discontinue these jobs after a few years. The reason may be ill health, adjustment problems, or any other personal problems.

I don’t think there is conflict between the youngsters and the elderly in organisations. If it is there, it may be a personality issue. In an educated community the concerned people are so particular not to break into the territory of another personality. Innernetz: The stories and more/2.0 Manuel Thalayolaparambu/EN DE Manuel: few more avenues/Page 3.0.

According to Manuel, there are fewer intergenerational conflicts while people are working together, the number of senior citizens involved in voluntary activities is less. Probably there seems to be a lack of awareness of voluntary activities in the community.

11.1.6 Families as spaces of connections as well as compromises

For Samira, the presence of family and friends around doesn't make her feel lonely and hence avoid the need of an assistant (e.g., a dog in the case of Hilda). According to her, the ability of elderly in making compromises and adjustments with their own wishes (and opinions) and giving priority to the wishes of younger generations is a reason for this harmonious inter-generational coexistence in Thalayolaparambu.

4. In Hilda's life pets offer a lot of comfort. In Thalayolaparambu, can pets living at home offer such comfort to many elderly who are lonely?

Here pets, especially dogs, are rarely kept inside the home. They don't like them too much. Mostly, they are used as guard dogs and kept in the cage or chained to something near the house. People have their families or grandchildren around or live with their grandchildren. So they don't feel too much loneliness. Innernetz: The stories and more/1.0 Samira Thalayolaparambu/EN DE Samira: few more avenues/Page 1.0.

3. Hilda and her son seem to have some difficulties in their relationship. Such things could happen in Thalayolaparambu as well? How are people able to handle such difficulties in Thalayolaparambu?

People often do something for their grandchildren. They visit them or even stay with them more often than I think in Germany. Here grandparents provide some financial help, if needed, for their children or grandchildren. The grandparents do a lot of adjustments and make compromises on their own wishes. They tolerate a lot to avoid conflicts. This happens with people who have money and are not dependent on their children. They do things to make the grandchildren happy. Innernetz: The stories and more/1.0 Samira Thalayolaparambu/EN DE Samira: few more avenues/Page 1.0.

This aspect of making compromises with personal interests and intentions for the collective management of the family can be seen in my interview stages as well reflecting a more generic behaviour pattern within the age group getting studied.

11.1.7 Cracks in the "Unity in diversity story"

Kerala is fabled for its Unity in diversity ways of living, where people from different religions and castes used to live amicably in a given space. This has in turn led to very successful peoples initiatives involving health, education, basic social security, cooperative initiatives etc. The possibility to unite and create a joint people's front in pushing for common needs thus creating a collective bargaining power was also a hallmark of the state politics. But, due to recent political developments there has been issues of fragmentation of this unity, especially from a religious and caste based perspective. Manuel has outlined this in his following observation to my query.

1. In your religious circle, is there a change in the way worshipping is done by the elder and younger generations? How do you see the concept of unity in diversity between various religious groups over time in your place?

Kerala, particularly Thalayolaparambu is famous for religious harmony. We interact among each other with mutual respect and with harmony. It was a tradition for a good number of years. But nowadays even though it is not visually evident, people interact with

one another in a suspicious way. This, one feels, is getting more as a result of the central governmental policies (India wide) done by the ruling party. There are also rumours that a certain minority community gets unethical and unaccounted financial assistance from outside of the country. This has also influenced their attitude to other religions, especially to Hindus. There is also news that the ruling party in our state provides indirect support in order to get their votes. There is now a question on the religious harmony of our place. Other regional caste based organisations are creating issues in the society.

One feels that the ruling as well as the opposition parties are equally responsible for this situation, and they are “playing behind the curtains”. During the elections candidates are selected purely on the basis of their castes and not on their secular outlook or their abilities. Innernetz: The stories and more/2.0 Manuel Thalayolaparambu/EN DE Manuel: few more avenues/Page 4.0

This issue of social divide based on religion coupled with policial leadership looking to make quick gains could seriously impede the progress of Active Ageing policies as well. My interviews in Thalayolaparambu also exposed this divide coming into the society and participants' concern with such a new development. The polarisation resulting from such religious discord could bring down the ability of collective bargaining power in the society. This may also create problems in the local administration in creating consensus to issues that may require immediate social attention.

11.2 Opportunities for intervention: Thalayolaparambu

Based on the participant interaction based on Innernetz App, some of the opportunities for intervention for an Actively Engaged Ageing could occur in three distinct phases based on the complexity of activities that could be undertaken. This could be divided into interventions that could achieve an intended outcome in Short term (lasting one year with two progress reviews), Medium term (lasting 3 years with two progress reviews every year) and Long term (initial project period lasting 6 years with possible renewals and process review twice a year). From a project sustenance perspective, the reviews should be a participatory one with enough time and resources allocated for accessing a wider population with its reach as well as feedback.

Short term interventions:

- 1.0 Creating dedicated parking spaces for vehicles in the town
- 2.0 Making clear demarcation of Zebra crossings and other traffic points
- 3.0 Strictly enforcing the rules of traffic
- 4.0 Initiating elderly meeting spaces through local governing bodies
- 5.0 Sensitising cafes about the business prospects through special elderly hour offers

Medium term interventions:

- 1.0 Introducing more participatory decision making processes
- 2.0 Sensitising public to elderly traffic needs
- 3.0 Sensitising elderly to changing traffic situation
- 4.0 Creating body movement activities attuned for the needs of aged

- 5.0 Creating spaces for nature based leisure activities (swimming, cycling etc)
- 6.0 Sensitising leisure as a means of managing health
- 7.0 Exploring leisure as a source of volunteering/connected space between people
- 8.0 Sensitising on the benefits of volunteering
- 9.0 Sensitising the families in negotiating personal and group interests more effectively with their elder relatives
- 10.0 Creating a participatory bio-market for various local produces

Long term interventions:

- 1.0 Sensitising the public regarding the individual needs and wants of elderly
- 2.0 Training and sensitising the public, including children, towards creative and constructive criticism
- 3.0 Creating kinaesthetic awareness in the society
- 4.0 Initiating intergenerational activities to build self-confidence and self-awareness
- 5.0 Exploring volunteering as an interconnected humane space bringing in aspects of an individual's religious outlooks and awareness.
- 6.0 Creating an intercultural space for spiritual engagement

11.3 Findings from Biberach

11.3.1 Strength of community volunteering

Probably, this is one of the qualities that differentiates Thalayolaparambu and Biberach. In Biberach, there is the participation of local inhabitants in public activities through various volunteering possibilities. It includes religious as well as non-religious organisations. In Thalayolaparambu, those activities, when available, are mostly concentrated through religious organisations. One such example, sighted by Henry while responding to my query, illustrates the strong association volunteering has for the local public in the walks of their life.

2. If Ajith gets an opportunity to travel to Biberach or Germany, what will be this "one thing" that you would expect him to experience and take back to his homeland? And why?

In Biberach, the festival "Schützenfest", which takes place during ten days in July. It has a long tradition and involves very many citizens in the town society, across generations. It is a good example of voluntary commitment of citizens of all ages. Innernetz: The stories and more/6.0 Henry Biberach/EN DE Henry: few more avenues/Page 2.0

For matters pertaining to old age related questions the volunteering elderly office bearers of old age associations in Biberach offer guidance to their peers. They also exert pressure in the local government as a group in matters concerning their needs. The following is based on my query with Romina.

5. There is a situation of feeling less secure when alone at home. Is it similar in Biberach as well? Is there a way to overcome this situation?

There are also situations where people living alone at home no longer feel safe. There is a senior citizens' office in the city of Biberach. Senior citizens and their relatives can

contact the senior citizens' office with all questions concerning old age. Here you can get information and advice on various topics: For care, housing, education, and leisure etc. The advice is individually tailored to the life situation of the individual and is neutral and free of charge. Innernetz: The stories and more/5.0 Romina Biberach/EN DE Romina: few more avenues/Page 2.0

11.3.2 Availing public transport options within the town limits by elderly

Henry here observes the fondness of public buses with the local elderly population. This keeps a few automobiles out of the city, especially during market days. Still, such public transportation facilities are available and are effective within the town limits.

5.1 There seems to be an awareness that individual vehicle ownership decreases the overall sustainability of our planet. Many people want to give a healthy planet to the younger generation as well. How far is car sharing or alternate mode of "cooperative commuting" like public transport received by elderly population?

Information on car sharing is distributed in official information for the elderly which includes advice on health, communities etc. But these attempts to make carsharing attractive to the elderly people in Biberach, have not been successful. The issue is different with public transport, which is based on the buses in Biberach. Here, one finds many elderly people in the buses, mainly on the market days i.e. Wednesday and Saturday. I guess that the main population groups on the Biberach buses are pupils and seniors. Innernetz: The stories and more/6.0 Henry Biberach/EN DE Henry: few more avenues/Page 2.0

People tend to rely on their private vehicles to travel and access places when they live outside those city limits. The presence of a large ownership of electric bicycles and well-maintained bicycling paths is another aspect of Biberach city and its surrounding areas. Due to an active elderly group, there are newer initiatives (not always successful as in the case of ride sharing benches) and constant pressure on the local government to make things functioning. This can be seen from the response of Hilda to my query.

2. Biberach has good public transport only within the municipal limits. After that limit people end up using their cars. One needs to own a car and it adds to pollution and other issues to climate. People are interested in giving a good and healthy climate to their grandchildren. What efforts are made by the elderly in Biberach to make sure that good public transport exists everywhere?

Here, there is both a "city seniors council" and a "district seniors council". Older people who deal with such problems sit there. In some communities there are also ride-sharing benches. People can sit there who want a ride. However, this has not proved very successful. However, people often plan their errands around bus times and then prefer to drive for convenience. Very many older people also ride their bicycles as long as they can. Innernetz: The stories and more/4.0 Hilda Biberach/EN DE Hilda: few more avenues/Page 1.0

11.3.3 Accomodation in an elderly home as a future option

Biberach and the surrounding areas have a few elderly homes and nursing homes catering to the needs of elderly. This is supported through charity as well as private organisations.

It needn't be the most preferred way of spending the later portion of a person's life, its presence in the society is undeniable. People appreciate the comfort and familiarity of their homes till the shift into a nursing or old age home becomes imminent due to difficulty in managing oneself independently. The issue of finding a space in an old age home is another issue facing many people forcing people to make early bookings. The response of Hilda to my query reflects over this dilemma.

5. Can you imagine living your life in an old age home or a similar arrangement? If you have to spend your life there, how do you imagine that facility to function? As you get older, do you have any other idea in your mind to spend your life ahead?

I can't imagine that and hope I never have to. If I had to live there, I would want a particularly well-run nursing home with sufficient staff. I would like to have a large room with furniture from my apartment and mementos. I have already registered with a service flat. There, people over 55 live in their own apartments of various sizes. If necessary, help can be provided by a coordinator. The waiting time for such apartments is several years because there are not many of them. Innernetz: The stories and more/4.0 Hilda Biberach/EN DE Hilda: few more avenues/Page 2.0

11.3.4 Shifts in religious beliefs

The relationship between participants and the majority local religion, which is Christianity, has been undergoing constant shifts. This can be seen in the way people engage with God as well as their expectations from the officials who are in charge of various religious practices. For Henry, God as a concept has been transformed as a more loveable one than something to be feared of. He calls for a better relationship between the people officiating religion and the society. This can be seen in his representation of Innernetz for Ajith, his Partner from Thalayolaparambu.

2&3. As a child, we were brought up in a rather traditional sense, to believe in a god at the same time be fearful of god. This I suppose has changed. I see of god as a lot more loving than to be feared of. I visit the church and offer my prayers.

4. I feel that the relationship between the people who are officiating the religion and the society needs to improve. There seems to be some amount of mistrust and disconnection between these two groups. I hope this improves and becomes more positive in the years to come. Story BC/Story Henry/1.0 Story: Ge - Henry/Page 10.0

A similar feeling is offered by Romina while answering Manuel's questions on the nature of religiosity of the current generation.

F 1Q1.1 Are people in your area still religious?

In my circle of acquaintances, not very many people are religious. They are more spiritually oriented. They belong to a religious community, but don't go to church. Almost two-thirds of the population in Germany belong to a Christian religious community. But membership of a religious community says nothing about the depth of one's faith.

F 1Q1.2 What about the religiosity of the youth?

Traditional religious forms and denominational ties are becoming less important for young people. Faith is shifting to the individual-personal level. Some say, faith yes, church no!. Story BC/Story Romina/3.0 Story: Ge - Romina/Page 12.0

11.3.5 Generation of waste; a reluctance in learning from the past

The reluctance of the younger generation to learn from the experiences of the past, especially about the food scarcity encountered by the current elderly generation is highlighted by Hilda here as response to my query. She feels the prevalence of a throw away culture and a way of overcompensation by parents as a cultural shift in the current generation.

3 One of the biggest wastes in Germany or developed countries are food wastes. But many in your age have lived through a time where food was scarce and there was no sense of wasting anything. Can the new generation learn something by reconnecting with such pasts? Can seniors play a role in establishing such connections with the past?

Young people often don't want to hear any more about the old days, about the living conditions with little money and saving. The younger generations have completely different interests. They have often also grown up with the phrase "my children should have it better". The young people have grown up in luxury and do not know about saving and using food to the last crumb. They could certainly learn something from their elders, but they don't want to. Some, however, organise themselves as food savers. They collect food from supermarkets and retail stores and give it away so it doesn't go to waste... Today, food is often thrown away because it has reached its best-before date. This is completely unnecessary. Most food lasts long beyond that, some even several years. This wrong behaviour is difficult to get out of people's minds. In the past, food was used up completely, including leftovers. These were prepared into new dishes and eaten. Today, many people lack the imagination to do this. Innernetz: The stories and more/4.0 Hilda Biberach/EN DE Hilda: few more avenues/Page 2.0

A similar opinion was also echoed by Romina when I enquired about the generation of food waste and the options created by elderly in mitigating the same. Here again, she feels more positive about the role played by certain youngsters in managing the waste by dropping off unused products at food stores that serve the needy.

1. One of the biggest quantities of waste in developed countries is bio waste. It is also ecologically harmful to transport goods from far away land. And everyone wants a sustainable and safe planet for their grandchildren. How are the seniors leading the way in making this happen in Biberach?...

The amount of waste in our countries is enormous. Many consume food and do not think about it. But there are now stations set up by young people where you can drop off leftover food or take some with you. But there are still too few. There are also food banks, where food that can no longer be sold is saved and given to people in poverty. The Tafel is a large social-ecological movement in Germany. Innernetz: The stories and more/5.0 Romina Biberach/EN DE Romina: few more avenues/Page 1.0

11.3.6 A culture of self determination

The ability of a person to control her own life through one's own decision is a critical attribute of the life of an elderly in Biberach. As against an interdependent or joint decision making as seen in Thalayolaparambu, the society entrusts people to make their own decisions and stand by it. While responding to Samira's question on the aspect of marriage

and finding partners in a person's life, Hilda states them as a personal choice where the responsibility of such decisions lies on the decision maker.

F1 Q3. You have mentioned about your son, but I am curious to know about your husband/partner. In our place when we lose our husbands, or if the person leaves you or gets divorced, it is very difficult to remarry. This is not so in your culture. So I am curious about the absence of a male partner in your life?

When I was 25 years old, my 1st husband passed away. When I was 35 I got married again, and when I was 40 I got divorced again. In our country it is not a problem, but it can cost a lot of money.

In our culture, it is not a problem if a divorced woman lives her life alone. In most cases, however, she has to take care of her life all alone. So then she has to work or has to be supported by the government. Story BC/Story Hilda/2.0 Story: Ge - Hilda/Page 2.0

11.3.7 Planning for avenues for informal social interaction

The need for social connections and interactions are felt across both Biberach and Thalayolaparambu equally. But both spaces seem to take a different approach in achieving the same. While Thalayolaparambu, as explained earlier, can be regarded as more flexible with the organisation of time (polychronic), Biberach could exist at the other end of this spectrum with its monochronic ways of time organisation. In order to sustain social relationships, elderly participants tend to use both formal and informal ways. If one may consider a family meeting on a specific date and time as a formal way of social interaction, catching up with friends or acquaintances in the weekday market could be a way of informal social interaction. As a means of overcoming loneliness, apart from having animals at home, such opportunities for casual interactions help to manage emotional wellbeing in the elderly population. Henry outlines this well-being quality of such informal spaces in his response to my question.

1&2. There are many senior citizens one sees in the local markets or in their own small garden patches. Do you see it as a positive social quality to be conveyed into the society, especially when we know the impact of supermarkets on the consumption and overall sustainability?

Yes, it is definitively a positive social quality. A visit to the market may be combined with a coffee in a café and/or with meeting other people intentionally or accidentally. This may not happen in a supermarket.

Concerning the garden patches I guess that it depends on the neighbours if there is social interaction. But the garden itself has a sort of social quality, for one's own well-being.

Innernetz: The stories and more/6.0 Henry Biberach/EN DE Henry: few more avenues/ Page 1.0

11.4 Opportunities for intervention: Biberach

Short term interventions:

1.0 Creating (more) spaces of informal interactions

2.0 Recognising the maintainers within the elderly community. E.g. providing concessions in local transport or in performance in local theatre etc. for the elderly who provide smaller repair works through "repairing cafes".

3.0 Linking the willing elderly groups capable of engaging in handicrafts with certain specific (but not stressful) needs of local organisations like kindergarten, municipal office etc.

Medium term interventions:

1.0 Creating sharable narratives of social engagement by the elderly to a wider audience, preferably using participatory communication methods

2.0 Recognition (by the local municipal authorities) of stories of engagement in ageing as a cultural capital of a space

3.0 Creating opportunities for intergenerational co-creation as a way of sustainable living. E.g. experiencing cooking with less resources or recycled resources.

4.0 Improving the regional transport facilities considering the elderly population living in villages

5.0 Showcasing the story behind some interesting developmental projects done by the elderly (alone or in group) while working in the local industries, farming etc. This could be presented to the public as a part of the town festival or as an exhibition in the local museum.

Long term interventions:

1.0 Enhancing the ageing at home experience especially during the end of the life period

The above mentioned opportunities for intervention from Thalayolaparambu and Biberach reveal very interesting outcomes. One of the most important aspects is the contextual relevance of the information with little overlap of the same opportunity for both the spaces. In terms of numbers, Thalayolaparambu seems to have more opportunities to intervene. This could probably be due to the fact that some of those aspects which deal with infrastructure like having better traffic facilities or accessibility have already been considered and resolved (to the best possible way) in Biberach. The availability of public funding to undertake such infrastructure projects in Biberach could be one of the differentiator here. Ageing is still a journey which is more personal or which happens within the confines of a family in Thalayolaparambu. This structure is undergoing swift changes due to migration and expectation of the elderly to function more independently. Probably, the society might be slowly moving towards the Biberach's way of understanding ageing, which is personal as well as a social phenomenon. The activities and awareness required to tackle ageing from a border social perspective is less evident in Thalayolaparambu. There the possibility to come together as an influential group capable of exerting pressure on the local or regional politics to acknowledge some of the prevailing situation has not yet evolved as one finds in Biberach. Another aspect is that this interaction was moderated by me, who also had access to information about the overall scenario than some of the individuals who participated in this stage of the project (due to the elaborate participant interviews). It was hence important for me to carefully manage my influence during this stage of the intervention and let the participants evolve their own directions. This in a way highlights the participant dynamics in such a process as well as the criticality of the role of the moderators in any of those interactions.

11.5 Few pointers from the Innernetz App based interaction

An important aspect of this interaction is the significance of communication between the partners which is required for moving forward the conversations. In the current experiment, I was assigning the partners based on my awareness from the earlier interactions, especially the interview stages. Few people I selected initially couldn't participate due to certain unforeseen situations needing to fall back on the replacement candidates. Some others found it difficult to invest time on a regular basis, like for e.g., Ajith, who couldn't make any significant contribution after the initial stages. This made it difficult for his partner to move forward and I as an intermediary had to pitch in to bring such interaction into a closure. But such occurrences could be normal in the case of dynamics involving many people and multiple inter exchanges. This calls into question the requirement for suitable backup plans to decide for the future of such interactions.

In my experiment, the communication happened on a one to one basis involving me as an intermediary. With more participation, the need to make clear the subject of discussion through keywords, short paragraphs etc. will become more relevant. The possibility for the participants to identify with those themes that conforms to their areas of interest is another aspect thus leading to creation of groups or subgroups. This calls for the management of the communication through administrators (preferably) assuming rotary leadership roles along with a basic set of rules could also be thought about. There should be an ease of leaving a certain group or joining a new one with the possibility of having a membership in multiple groups.

As communication is the critical quality of such an App, what will be critical for such a system is the need for the participants to have a space where they are able to project their own visions and ideas for themselves without others coming to know about it. This should be in addition to their ability to communicate with a wider audience. Hence a form of "Share to self" option, which couldn't be implemented in the Innernetz application, could be explored apart from the "Share to others" mode. The need to capture key points and make it visible to self or for others should be facilitated. This eventually calls for more transparency towards the members in the groups as to their identity and their location. If an organised transformative change is an intended outcome, then pseudonyms by participants (or even some avatars as a visual identity) can only be an addition. The need to disclose the actual identity then becomes imminent and also brings in a factor of strength and seriousness. There should be a possibility to conduct voting of agendas on a theme once a certain maturity in its discussion has arised. Here the group leadership will have a bigger role to play to maintain fairness and transparency.

The interface of such a system should be capable of representing the various themes of discussion effectively in an intuitive manner along with keywords or key topics which are also temporarily organised. The creation of a few online assets which could aid in representing topics could be considered, still the possibility to use online resources by paying due credits to creators could be a way forward as with the pictograms I employed for Innernetz were from the site www.flaticon.com. The possibilities offered by online

platforms like Google's Gemini (Gemini (Language Model)) or Chat GPT (Silverman et al., n.d.) which are capable of generating writeups, stories or even (moving) images from basic word or text based inputs could also be explored.

The other issue is regarding the duration required for evolving a specific topic from the discussions. For this experiment, the duration was for 3 months, starting from the beginning of July to the end of September 2023. This was the time inclusive of understanding the requirements of the activity, getting acquainted with the Innernetz app, initiating a conversation, and doing the follow ups. This was finished by the first week of October. Given the challenges involved in developing the current prototype, there exists a rather complex interface involving both digital and analogue inputs. With a better designed application one feels 3 to 4 months duration as a good enough period to intensively discuss and narrow down an open-ended topic into key words and mapping out opportunities worth pondering on. I am unable to arrive at a comfortable size of participants in a group as silent participation doesn't mean a "no participation". The possibility to put in place a few etiquettes of interaction could help assure the retention of each person's perspectives without getting judgemental or overbearing. This may otherwise make the participants lose interest turning them into a passive observer or even move out of the process altogether. This may defeat the overall purpose of the activity, rendering them an arena for homogenous ideas and initiatives.

Even though such spaces could act as micro laboratories of transformational efforts (Jonas et al., 2016, Hayashi & Ricardo, 2022), it should be made clear at the onset that any proper solution to a complex problem is always going to be a work in progress. There could be smaller realisable solutions on the way (in case of problems with defined boundaries), but otherwise a successful intervention should be measured on the basis of widely acceptable, positive improvements and creation of options or possibilities orienting towards the future.

11.6 A second level of knowledge creation

The learning process resulting from Play as an engaging system using the Innernetz App could ideally be captured as a second progressive stage of a modified knowing cycle for design research as in fig. 11.1. The theoretical construction of Engagement which is discussed in chapter 9 becomes the source of input here. The theoretical evolution of the concept of Engagement as well as readings on Engagement leading to planning for a communication channel, in this case the Innernetz App, represented the *inductive phase*. This was followed by the eventual design development of the Innernetz App, which also acts as a working prototype exploring the various activities of engagement happening in the life of the elderly participants as well as the actual process of engagement happening between the participants while using the application. This can then be considered as the *abductive phase* of the learning cycle. The various discussions leading to the possible opportunities of interventions could be considered as the *deductive phase* of the learning process. Selection of any specific opportunity for further development can initiate a new phase of learning opportunities and probably a new learning cycle, whose exploration will be beyond the scope of this project.

Following Jonas (2014,33), this creation of contextual design directions, is also the source of Transformational knowledge (Nicolescu, 2002). This could be further explored as newer knowledge cycles resulting out of contextual design interventions/experiments further mediated using Playfulness intended to create meaningful Active Ageing transitions.

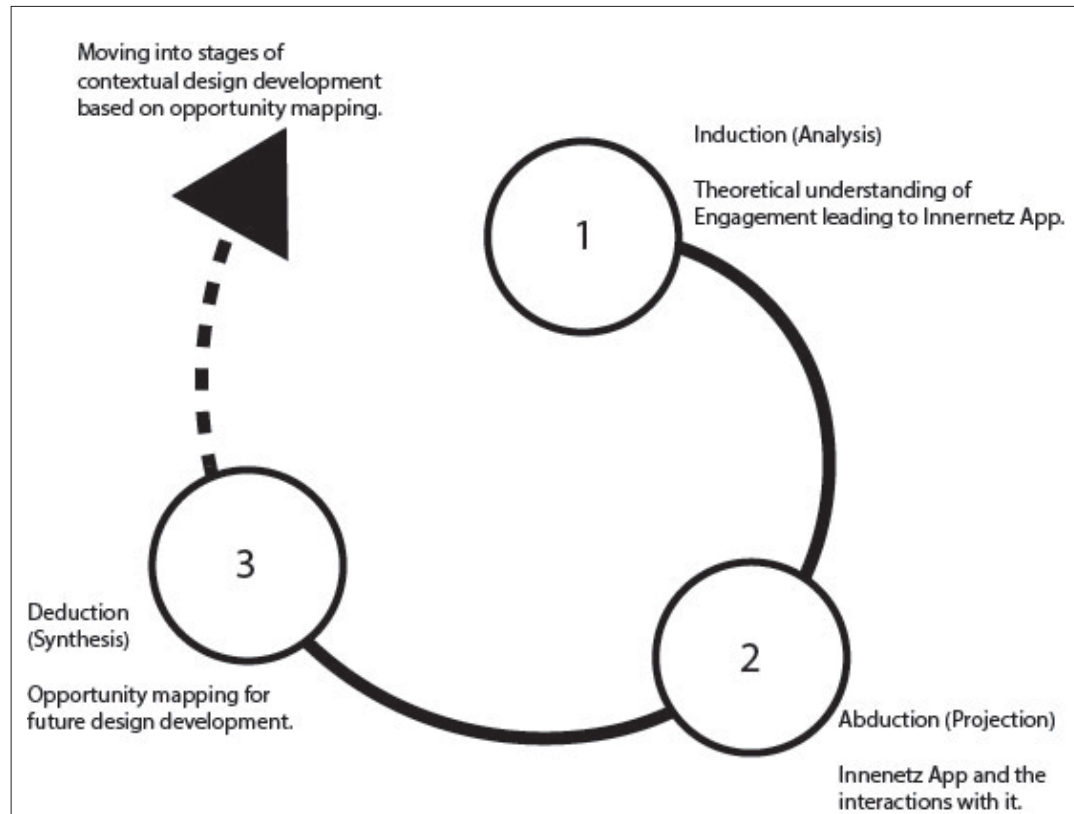


Fig. 11.1 The stage 2 of a modified RTD design research cycle showing the Inductive, Abductive and Deductive phases leading to further contextual design developmental stages and learning based on it.

11.7 Defining Engagement in the context of Active Ageing

What has remained as a challenge throughout this project has been the lack of clarity in placing the concept of Engagement in the context of Active Ageing. In chapter 4, Engagement is explored and defined through its association with various other fields like play, games, personal and social relation, as strategy or as mechanistic relationships etc. By combining the readings resulting from the association of Engagement as found in Chapter 4 with the findings from the aspect of Play as Engaging system and the resulting creation of an application and the following opportunity mapping, it would be important to try to define Engagement in the context of Active Ageing.

My attempt to define Engagement in the area of Active Ageing can be read as “A sustained ability of people to connect, communicate and co-create with self or other agents, probably in a playful manner, in creating a sense of meaningful transition towards Active Ageing.”

Here this definition looks at Active Ageing through a lens as comprehensively defined by the UN. People here encompass all human beings existing in a wide spectrum of age

groups and not only limited to someone above 60 years old. It acknowledges the diversity and differences existing within this group and believes in individuals' capability in linking with self or with others to create an intentional action with a belief of meaningful change to their existing life and living. Such intended actions could be assumed to happen in a multitude of ways and may ideally seek in establishing lasting positive change. Those changes could be for self or for self and others and don't try to place any boundaries on the nature or quantity of activities. The ability to establish intra/inter connections, communication and co-creation is significant in establishing meaningfulness of those activities. Playfulness here acts as a highly desirable mediator in facilitating and sustaining this transformation.

As one may understand from this chapter, the interactions and the corresponding opportunities arose out of the engagements that happened while using the Innernetz App. Even though there were interventions from my side in keeping alive those interactions considering the prototypical nature of the application, the basic exchanges were the outcome of the participants reflections on certain aspects of their lives concurrent to the areas under investigation (the seven aspects getting represented on the app) as well as the inter-exchanges that has happened with their partner. In the case of Biberach, may be due to the acceptance of the criticality of ageing in the national and the regional governments, there was more awareness and hence more activities. There were resources available for support and follow up actions. This is quite opposite to the situation prevailing in and around Thalayolaparambu. Society is slowly waking up to the criticality of ageing, especially ageing of an individual in an ageing society. The earlier support mechanisms through joint family systems are not an option for most of the people. And the issue of migration of younger people out of Thalayolaparambu to other places in India or abroad is rendering an acute shortage of support personnel. There is a lack of awareness and in some cases a lack of uptake for activities that are engaging a person holistically. Though there exists some initiatives in providing unrestricted access to all people in governmental office spaces, such facilities are far from common. Even private houses tend to lack elderly friendly layouts or toilets. Hence, in terms of opportunities for engagement, Thalayaolaparambu seems to have more issues, both fundamental as well as structural, when compared to Biberach.

11.8 A brief summary of the exchanges

Here I would like to capture the overall essence of the aforementioned interactions between the participants of Innernetz. I would try to identify the matters which were resonating in both the cultures as commonalities and those which were diverging as differences.

In 11.1.1 regarding the traffic situation, there is a huge difference between both spaces. In Biberach, the rules are enforced and people tend to follow them with a greater rigour than one encounters in Thalayolaparambu. This renders driving in Biberach safer in comparison to Thalayolaparambu, especially for the elderly population.

11.1.2 explores the different ways of decision making existing in the cultures. In Thalayolaparambu, there is an importance given to interdependence between people and this gets reflected in the decision making processes as well. What is seen as an independent and person centric decision making in Biberach becomes an interdependent decision making in Thalayolaparambu with family and even local society influencing your decisions. This also seems to be a gendered concept in Thalayolaparambu. Decision making for women seems to be more complex in Thalayolaparambu in comparison to Biberach as it needs societal approval to complete this decision making process. This can also be seen as a difference. Another difference is regarding the participatory nature of the decision making process. Biberach seems to be more participatory in decision making with matters involving the elderly in comparison to Thalayolaparambu.

For 11.1.3 regarding the avenues for constructive criticism as a confidence giving measure, the impressions from Thalayolaparambu paints a picture for the need of a more moderate approach in criticising. The feeling of criticism as a public humiliation that renders a sense of fear and eventual non participation of elderly emerged as an aspect from Thalayolaparambu. I don't have any data from Biberach to support or refute this claim.

In 11.1.4, where the perception of others is given importance to one's own decision making, there seems to be a difference between Thalayolaparambu and Biberach. In Thalayolaparambu, the need to listen to and function according to others' perception seems to be stronger. This is also indicative of the aspect of interdependent decision making prevalent in Thalayolaparambu where there is a need to take multiple consensus in arriving at a decision than in Biberach.

In 11.1.5 regarding the awareness of volunteering activities in Biberach and Thalayolaparambu, there are differences. In Biberach, the awareness and availability of such activities are more than what is available in Thalayolaparambu. Biberach seems to be more gender inclusive than Thalayolaparambu when it comes to voluntary activities associated with religion and women.

In 11.1.6, families as spaces for connections and compromises, there are major differences between Biberach and Thalayolaparambu. In order to maintain inter family relationships, elders are willing to make a lot of personal compromises. The need to tide over conflicts through personal adjustments by elderly is seen more prominent in Thalayolaparambu. In Biberach, such personal compromises are not common and chances of personal conflicts to come out in the open is more possible than in Thalayolaparambu.

In 11.1.7, the cracks in the Unity in Diversity story focuses more on Thalayolaparambu. Thalayolaparambu has a majority Hindu population with an equal number of Muslim and Christian followers. When one considers the control of Muslims and Christians on commerce and trading, the stakes become more complex. This is different in Biberach with Christianity as the overwhelming majority religion. So I am unable to assess the existence of such cracks in Biberach.

In 11.3.1 regarding the strength of community volunteering activities and the presence of dedicated volunteers to look into elderly related concerns, Biberach and Thalayolaparambu are very different. The aspect of voluntary activities are already discussed in 11.1.5, but the absence of a dedicated organisation to look into issues connected with elderly is a challenge in Thalayolaparambu.

In 11.3.2 where the availability of public transportation facilities are discussed, both the places have less commonalities. Biberach, despite its wealth and awareness of the merits of a public transportation system, has poor connectivity beyond the city limits. This makes people dependent on their private vehicles for commuting. The idea of their own vehicle as a means of extending personal independence is also strong in the community. The presence of well developed bicycle paths and the means to buy electric bicycles supports the commute of elderly. In Thalayolaparambu, there is a well established network of public and private buses connecting most of the neighbouring villages. The rickshaws are also an affordable means of commuting there. The absence of well paved and dedicated bicycle paths and unaffordable costs of electric bicycles are another aspect of Thalayolaparambu.

The aspect of living in an old age home towards the later part of one's life is a divisive topic in Biberach as seen in 11.3.3. Many people would like to stay at home and its familiarity towards the end of their lives. But for those wanting to shift to an elderly home, it has to be planned in advance due to lack of availability of space. Thalayolaparambu is very different from Biberach in this. There are no old age homes available in the locality. The idea of old age homes carries a social taboo, as a place for destitutes and people without any relatives.

Regarding 11.3.4 where the shifts in religious beliefs are discussed, there are differences between the two places. In Biberach, religion has become more of a private affair. The relationship between people and god is different from people and the church. Thalayolaparambu exhibits a more intimate relationship between religion, god and places of worship. The presence of Hinduism, Christianity and Muslim religious beliefs is a peculiarity of Thalayolaparambu whereas Biberach has a Christian majority with Islam as the second prominent religion. Biberach has various church supported initiatives for being Engaged. Some initiatives are available in the church based organisations of Thalayolaparambu as well as the various religious activities of temples with participation from people of both genders. The participation of women in the activities of mosques are less.

In 11.3.5 where the generation of waste, especially the bio waste is coming into question. Also the aspect of learning from the past experiences of elders is also called into question. Here the elderly participants from Biberach feel that there is a reluctance in the younger generation to learn from the past. I don't have suitable data to compare this with the experiences of elderly in Thalayolaparambu. Even though Kerala has been a consumerist state for a long time, the extent of consumption is still lesser than that of Baden-Wuerttemberg.

This pattern could be vastly different for a younger age group, who are exposed to newer ways of consumption. This matter needs a more in depth future investigation.

The aspect of a culture of self determination is discussed in 11.3.6 and this is already discussed in 11.1.2 and 11.1.4.

In 11.3.7, where planning for avenues for informal social interaction is involved, both cultures exhibit those qualities in their own uniquely divergent ways. Biberach is more formal in terms of granting appointments when compared to Thalayolaparambu and hence requires pre planned spaces and times for interactions. Here occasions like visiting weekday markets become spaces for informal connections. Participants in Thalayolaparambu handle time with more flexibility and with lesser emphasis on pre-arranged meetings. The possibility to visit one another on a spontaneous note is accepted and various functions like marriages or religious occasions act like spaces for informal interactions.

A study of ageing also provides an opportunity to enlist the vast possibilities of an active self, provided the limitations that prevent the Active Engagements are also listed and made available. The next chapter lists out the various limitations to the Engagement. Some of those limitations are solvable through a short or medium term intervention, while the others require long term efforts involving large participatory, collaborative, and communicative strategies. Those findings are my cumulative learnings from this project, evolving through my readings, interviews, and interactions via Innernetz App.

Chapter 12: Limitations to Engagement

In order for the Engagement to take root and establish itself as an able agent capable of positively transforming the personal and social domains of the system of life and living of elderly it has to overcome various limitations. These following mappings are reflections of my experience of conducting Lego based interviews and interactions using Innernetz. These can be in the form of:

12.1 Resources

This happens to be one of the critical aspects in making Engagement to happen as well as to sustain. The following are the factors one could count as resources to have an impact on the aspect of Engagement:

12.1.1 Finances

The availability of finances helps people orient their interest to either continue with, make diversion of, or completely let go of activities in the course of Engagement. This has consequences on both the quality and quantity of Engagement influencing the choices, duration and even the access to an activity. The financial factor can influence the overall system or the individuals leading to poor possibility to Engage.

"... I am not able to earn anything from agriculture... there is no return. As farming is still in my blood, I am not keeping those lands barren. I am trying different types of farming. But one cannot make farming a livelihood as one doesn't earn anything out of it... That is the main thing". 3.0 Jayan 62, 21-31, para 15.

Here Jayan is deeply interested in farming. This is also a passion for him. But the lack of financial returns from farming business, where the governmental policies have a huge role to play, has made him look out for other concurrent avenues. He has to diversify into other areas of farming or non-farming business, requiring more efforts from his side. With age, this may prove to be a more daunting task. Many people in his place would have given up completely on farming thus losing an avenue to keep them Engaged.

"... my parents did not have much money... I have always thought we were a bit lower class. My parents always said that people are watching us or you cannot do that... So my parents did not want to attract attention and we should also not stand out and that makes you a little bit small there. So, you do not stand out means also not to show yourself". Helena 67, 21-31, para 14-15

While growing up, the precarious family finances did create an uncoupling for Helena from some of her immediate peers and their families making her feel small and less confident.

12.1.2 Skill

This is a specific ability, a know how, to execute something. If one wants to play a musical instrument, one needs to know how to read the musical notes or at least have the ability to play the instrument. Also, there needs to be avenues to understand and nurture these skills. Skill coupled with training is required to achieve a level of comfort, especially when it comes down to an execution in the form of a performance or assistance etc.

12.1.3 Time

Another important resource concerning the elderly is time. The availability or the lack of it plays a role in structuring engagement. Retirement, when seen from the perspective of availability of free time, is a luxury accessed by a narrow spectrum of population, especially in India. It is also a gender sensitive quality (Tripathi & Samanta, 2021), with women perceiving time as broken and consisting of multiple parallel activities e.g. cooking while caring for a grandchild at the same time listening to a television program etc. It influences the elderly, both genders, as in the case of Das. Here his inability to go and enjoy a movie is hindered due to his activities at home, especially due to the caregiving he (along with his wife) provides to his grandchildren.

“... I have been a pensioner for 11 years. Yet I haven't got a chance to watch a single movie in the movie hall. It is not because of my lack of interest in movies, but because of the situations at home. One is in it and one is going on like that. I am not able to take out three or four hours at a time to go and watch a movie from a movie hall”. Das 66, 21-31, para 64

The nature of work one undertook also influenced the Engagement factor from a temporal perspective. Certain work required the people to put in long hard hours leaving them with less time and energy to learn something new or practise things they are aware of. This influences their ability to Engage at a later time due to their lack of skills or ill health.

12.1.4 Health

Changes in health, either gradually or suddenly, have an impact on the way Engagement happens for a person or a group. In the case of Herman, who is also a musician, his difficulty with his eyesight makes him unsure and dependent on others, especially while using his vehicle or reading musical notes. This influences his travel plans where he needs planning from others to engage with his musical activities.

“... I could no longer read... In which way it is going to develop. Will it remain like this or will it become worse. It will not remain like this and it is going to be worse in the future. I might have to have a second transplantation in each of my eyes. But that is such an uncertainty that my eyes have given to me that also shapes my everyday life”. Herman 65, 21-31, para 42.

For Jayan who is involved in local politics as an organiser and activist, his constant presence is what defines his relevance in a group. The party would consider someone healthy and fit in his place if he cannot manage his health and through that his presence. This is getting progressively difficult with his ill health.

“Things will only happen when you go where you need to go. So as an organiser this is my experience... the question comes up. Who is the organiser? Where is he? And he is not here? ... Oh, he is unwell and is now sitting at home. Then why is he taking up things when he is unwell? Jayan 62, 21-31, para 91

But the health of a group is also an important aspect of Engagement exhibited during the COVID crises. This had created a dichotomous situation where the governments world over had to devise policies which prevented people from engaging with one another (to prevent the spread of disease), at the same time came up with methods to keep people

Engaged and healthy in their individual spaces. Health turns out to be another significant resource for maintaining Engagement.

12.2 Awareness

Another factor influencing Engagement is the awareness a person or a group exhibits towards the significance of the Benefits of Engagement. This can happen as opportunities provided, right from the young age and then continued throughout the life course of an individual. Hence awareness here influences both positions, that of an individual but also regarding the greater society where this individual is a part of. Other aspects like gender, race, age etc. can influence this awareness.

In the case of Latha, there was no one in her family who understood her interests and mentor her in developing them when she was a girl child. While in her old age, her interest to Engage in dance as an elderly is severely held back due to her lack of knowledge of this medium as well as the lack of awareness in the locality of using dance, as a mode of keeping oneself Engaged and healthy especially while old.

“When I was young I wanted to learn dance, music... But there were no opportunities to develop those interests in me. At that time, one has to look after the household activities... That is what is being instructed to us. And one goes ahead with those instructions. It was not possible to grow or take part in cultural activities”. Latha 76, 21-31, para 58

12.3 Availability

Here disengagement happens due to the lack of opportunities available to Engage. This makes it difficult for people who don't have the resources to make available those opportunities. For Raman, the lack of formal training facilities for the elderly to exercise his body in his town is a severe constraint from Engagement. He will have to travel to another town or wait till such a facility is getting created in his hometown, presenting him with inaccessible situations.

“In our current situation in Thalayolaparambu for the elderly to move out freely in the open, such areas do not exist where they can function independently”. Raman 70, 22-32, para 18.

An emotion could be a powerful source of disengagement for many. The remembrance from previous sensorial experiences could act as a strong deterrent for future Engagement. This could happen when the new sensation doesn't match the envisaged quality of the already lived experiences. Vijay's strong reminiscence of the smell and tastes of his locality carries a higher weightage than the current standards. He attributes this to an overall lack of availability of good quality products (herbs, natural ingredients etc.). This makes him disengage with those spaces in the current times.

“... There used to be another shop inside the market. When you reach this place, there used to be the smell of the local medicines. There used to be the smell of places selling mouth-watering dishes, or smells from the hotels. So, one could identify each portion as a result of these smells. Nowadays even though the local medical shop is there, there is no such smell. This is due to the differences in quality”. Vijay 65, 21-31, para 26.

12. 4 Access

Despite having the opportunity to engage, the Engagement need not happen due to the inability to access the resources. This can be due to physical, material, social status, financial or gender-based limitations

“In the case of Thalayolaparambu, the aspect of traffic is a major issue. When someone comes, people are not able to walk properly (in the town). The vehicles are moving on both sides of the road without having proper control”. Vijay 65, 21-31, para 34-35

Due to lack of proper traffic regulations elderly people find it difficult to cross the roads and access certain areas of the town without limitation. This creates apprehension in them to do things only with some assistance thus creating unexpected dependencies.

Certain bad design decisions influence the access to utilities as in the case of illegible fonts in a ticket vending machine. This creates unwanted problems for Herman when he travels by train.

“... It is difficult for me when I have to buy a ticket at the ticket machine. Then it is difficult for me. There I have problems”. Herman 65, 21-31, para 44.

Prohibitions enforced by the government through executive powers also influences the access to engagement. In this case, the restrictions due to Corona made it difficult for Sandra to access rail or air travel thus making it difficult to meet her friends.

“So now through Corona my life has somehow turned upside down again. I turned 70 and I've been around here for quite a while now... I could no longer travel, not being able to meet young people, not knowing how things would go on”. Sandra 70, 21-31, para 43-45.

12. 5 Prior experiences

The challenging childhood experiences could create long term influences on the psyche of a person, creating difficulties to engage when they get older. For Gopi, his family's attitude as someone with a higher social status due to his father's profession isolated him from his friends. This created a lack of confidence in him as he grew up which he had to work hard to overcome.

“... to go out, to go and do something outside, to meet and talk to others, such sort of circumstances my parents didn't allow us. And the reason being, my dad was working in a higher department, i.e. the police department. So, the strictness and things like that were imposed upon us. So, if we were against this or wanted to go out of the house, then they would prevent us from doing so. And then it gets into beating, hitting etc on us”. Gopi 65, 21-31, para 23.

Or the lack of emotional Engagement between him and his parents in his childhood created difficulties for Hertz as he grew up.

“... Mother's love is quite foreign to me and my father was for me as a child a stranger. I have seen very little of him. He only worked... My parents had little time for us. I remember that my mother had played Badminton with me only once, for five minutes... My mother took good care of us. We got food every day and that was her main task. But emotionally we strayed off the track”. Hertz 74, 21-31, para 107

12. 6 Dealing with perspectives

When Engagement happens in a social space, then it requires a lot of negotiation of self in relation to others in order to find a common point for communication to take root. In such situations, a lot of interpersonal aspects come into play influencing the further Engagement possibilities.

“In the residence association, I was not able to do anything creative in recent times... I have a feeling that the way of thinking and level has become a lot narrow. It can be because of the people who are coming in the leadership during those times. There are people who are there without much ability and motivation...”. Tom 62, 22-32, para 67.

Here a lack of appreciation of the leadership abilities of the current head of an organisation prompted Tom to take himself away from its activities.

“This is a thema that is pretty much closed to me. There is no God. No God created the world, not created the man but mankind created the God, as per his needs to his advantage”. Hertz 74, 21-31, para 152-3

Due to ideological differences and a rational outlook, Hertz is unable to appreciate the concept of God. This also makes him disengaged with the activities of church as well. A similar aspect is highlighted by Ali, who stopped working for an organisation due to his ideological differences in the functioning of the organisation under current leadership.

“I was an active member of the Muslim league. It was functioning quite well. At that time, the party was an organisation which was doing good for the people. Later, after the time of CH (C H Muhammed koya, a politician), its governance was done in a unilateral manner. It is not a league that C H envisioned... When it started functioning unilaterally, I left the organisation”. Ali 67, 22-32, para 117

But he and some of his friends stopped visiting temples belonging to other religious beliefs due to the onset of religious discord as described below. Such disengagement results in the shifting of fragile social balances and initiates complete social segregation, if not taken care of.

“... we used to have a really nice time period, to go to the temple with complete freedom. Now if I go to the temple, in order to create problems, there will be many people... that the Muslim should not go that way, or not to let a Muslim enter the temple. That is the current situation. So now for some time, I haven't gone to a temple”. Ali 67, 22-32, para 127

Such happenings resulting out of organisation management or lack of transparency could lead to withdrawal, where the stakes for Engagements are more social in nature. The possibility to withdraw offers a distancing or decoupling which have its own strong consequences as in the case of religious agendas.

Perception about a person's job also plays a role in assisting or limiting Engagement. For Das, who used to work in the police department, a common misleading perception about officers' moral qualities makes his Engagement in his neighbourhood a difficulty. He manages it by withdrawing into his personal space.

“Society looks at police officers in a certain perspective. This side of the police, regarding their weakness for women, that the policemen have interest and they see things in that way. This I am aware of it. That’s why I don’t go to any other house, nor do I establish any relationships”. Das 66, 21-31, para 50

12.7 Attitudes

The attitude (perceptions and actual functioning) of the systems where Engagements happen can define its future functioning. As one can see, the prevailing corruption in a certain political organisation prompted Balan to disassociate himself from it in order to preserve his public image. In those situations, he considers preserving his name/image more important than the service which he could render.

“So in the time of COVID, I didn’t give any financial help. In all these places, there are people who have made crores (*1 crore is 10 million rupees*). So in our place, when we decide to do things with community engagements, then our name also gets spoiled... People consider me to be part of this and then people ask “so you as a teacher are also involved in this?”. Balan 68, 22-32, para 88

Previously I have discussed the lack of opportunities for Engaging activities to take shape in a given location (in the availability of resource section). But this is also a much more complex issue as one can see from the attempts made to Engage classical performers and audiences. Here the audience didn’t want to spend money to watch a classical performance leading to its eventual cessation. There is also a reflection on the commitment of the performers (here, people employed in the running of the temple rituals). For the audiences, their action reflects a lack of commitment and an easy way out of earning a livelihood, which makes their performances less alluring to the audience.

“There are many artists in Vaikom, there is no private stage, where one can enjoy the performances regularly here in Vaikom. That is a deficiency. Why that is because, there are a few people who tried out doing this, even though there were audiences, there was less income for the expenses. So, it all stopped”. Jayan 62, 21-31, para 70.

“Some people are coming to the temple school as a student to make it as a profession and thus get a job. When they pass out, then they will get a job. Usually for government jobs, one has to clear the PSC tests. So, if you complete the course here, then you receive your certificate and with this certificate, you can get a job in the Travancore Devaswom Board. It is for this job that most of the people come to study temple arts”. Jayan 62, 21-31, para 68.

12.8 Ageism

This tendency of a society to exclude someone on the basis of their age, but not on their abilities also creates road blocks towards Engagement. Sandra, who likes to dance, finds it difficult to enter certain clubs for dancing due to her age and her (singleton) status.

“... my husband was a dancer. I still notice today when I listen to music that my legs start to move and I would like to start. But for lack of opportunity, as I am over 70 then one has

not so much opportunity to dance. And if you don't bring a partner it is anyway even more difficult". Sandra 70, 21-31, para 102

The lack of access and availability of some of the above mentioned aspects does hamper the ability to Engage, but it doesn't indicate an end of the road for being Engaged. People could identify certain attributes and start working on them to develop them, even at later stages of their life. Certain Engagements also transform over the course of time, losing its earlier significance, resulting in a completely different quality as time progresses. Yet, it does make sense for individuals and a society to acknowledge and give space for the Engagement to take root in the lives and culture of people as a life course perspective.

12.9 Summarising the findings

As one may observe from the above mentioned categories that most of the headings are interrelated. On one side, a lack of available opportunities for Engagement could happen due to non availability of resources, but on the other side, this could be an end result of certain societal attitudes leading to issues like ageism etc. A summary could be as follows:

Resources influence both spaces. In terms of finance, what a person could afford in both spaces has a relative impact. Biberach being financially strong as compared to Thalayolaparambu could afford offering certain services to the general public.

Skill building, especially in terms of hobbies, is different in both spaces. Society in Biberach has more acceptance in pursuing individual hobbies and hence more open to provide spaces in acquiring relevant skills for it. When compared to Biberach, hobbies as a concept lack a cultural understanding in Thalayolaparambu. Hence providing for skill-building lacks certain priority.

Organising personal time seems to be better done in Biberach than In Thalayolaparambu. The latter seems to have a tendency in mixing personal time with family and social times.

Consequences related to health influences both the spaces in a similar way. The impact it may have on one self and those associated with it could be of similar nature.

In terms of awareness to engage, Biberach seems to occupy a better position as compared to Thalayolaparambu. Maybe this could be due to a better perception of benefits of Engagement in Biberach as compared to Thalayolaparambu. This availability of opportunities to engage also follows in a similar manner with Biberach offering better facilities to engage.

In terms of access to facilities where design and details plays an important role, Thalayolaparambu could do more when compared to Biberach.

Where prior experiences are concerned as facilitators or inhibitors for Engagement, both spaces exhibit similar tendencies. Especially in relation to emotional relationships inhibiting Engagement, one can find certain contextual similarities.

Dealing with perspective also seems to exhibit a certain similarity in both the spaces. People take positions against certain perspectives, which make them either engage or disengage as can be seen in matters pertaining to religion or social interactions. It seems that the ratio of people getting disengaged as a result of matters concerning places of worship is more in Biberach than in Thalayolaparambu.

In cases where the transparency and culture of an organisation influences the nature of Engagement, Thalayolaparmabu seems to differ a lot with Biberach. The issues related with corruption and its consequences thus preventing people from Engaging was felt more in Thalayolaparambu than in Biberach.

The possible consequences of Ageism could be felt in both cultures in its own unique ways. In Thalayolaparambu, it may come out as a family or social reaction underestimating a person's ability (Samira's example with her driving lessons) or as an invisible door which prevents a person from being welcomed into a space (Sandra's effort to go dancing).

Chapter 13: Concluding thoughts

The possibilities of Engagement in the context of ageing, especially Active Ageing, are immense as seen in my arguments from the previous sessions. There is a wide variety of ways, observable and otherwise, that people employ to keep themselves engaged in their daily lives. Some of them are well aware about the need and eventual benefits by being engaged in their lives. Places like Germany have various programs in place, state sponsored or through various local organisations, to keep this aspect of Engagement alive within the elderly population. But as one may find from the various activities in Biberach that many of those activities begin a lot earlier in the lives of the population, probably from the kindergarten times. In Biberach, there is a culture (as a given as well as being built) of practices that make use of the social engaging qualities of human beings in providing for voluntary services that benefit a larger society. A number of people, both young and old, seem to benefit from the value and meanings such opportunities provide for the participants.

Even though Thalayolaparambu exists in a different socio-cultural context, there are certain opportunities that the elderly make use of in keeping themselves engaged. The people there are able to understand the benefits of the practice of some of the activities as well. But certain other activities like volunteering or leisure, seems to be lacking the necessary awareness leading to a lesser uptake. If the polarisation of the society (as mentioned by the participants during the interview and Innernetz stages) on the basis of religion is becoming a reality, then it may create new and unforeseen crises for the elderly, who will be exposed to a new reality of fragmentations in their neighbourhoods. Apart from the ensuing social friction this could also bring down the collective bargaining capacity of the elderly for their own actively engaged lives (here Engagement undertakes a transformative function of betterment). The criticality of an ageing society is yet not felt within the local social framework leaving with less opportunities for the senior citizens to explore and engage in activities that contribute to an actively ageing self. One is hopeful that with increased mobility due to income, awareness due to exchanges of ideas (migrations and exchanges about those experiences), activities of organisations like HelpAge etc., the society will learn and adapt sufficiently to the incoming times.

This project, as one may see, has looked into the aspects of Design (with a focus on Social Transformative Design), Active Ageing, Interculturality, and the powerful mediator quality of Play / Playfulness in trying to address the research objective one started off with. This has resulted in bringing out the significance of the concept of Engagement in the life of elderly. As one proceeds, it is also now time to look back on the three research questions that I started out with and ascertain how far those have been answered in the course of this process. My first question was **How is the concept of Active Ageing (WHO, 2002) perceived by a German and a Keralite, who is 60 years and above?** My research project started out with the broader objective of understanding how Playfulness could play a role in understanding complex social dynamics and assist in designing socially transformative

possibilities. Here looking for design opportunities in the area of Active Ageing provided the broader context of the study and the intercultural nuances of Active Ageing between Biberach and Thalayolaparambu provided the specifics that added to the awareness of this broader context. The Lego based method that I implemented in the participant interview stage provided the participants as well as myself a clear mapping of various nuances of the life and living of an elderly. This also helped in creating a more nuanced as well as contextual understanding of Active Ageing as practised within these cultural spaces. The playful possibilities offered by the Lego blocks helped the participants to dive deeper into their lives to come up with a structured, yet rich expression of their lives in a life course perspective and is being represented as Play as an inquiring system.

For the second research question, **How can Transformation Design approaches using Playfulness as a methodological tool influence the inquiry of Active Ageing?**, on one side an understanding of Playfulness helped in coming out with a strategy to understand and structure the information. In this stage a narrative based approach helped in creating profiles of participants with more flexibility and diversity by incorporating essences from other conversation. But on the other side, it is this understanding of Playfulness that helped in coming up with the Android based smartphone App called Innernetz. The intention was to create a playfully mediated space (Play as an engaging system) which will make aware for the participants the possible opportunities of Engagement as well as the best practices through a process of sharing, discussion, and reflections.

The exchanges that transpired using Innernetz and the mapping of design opportunities (short term, medium term and long term) that has resulted out of these exchanges can help in answering the third question, i.e. **How can a self-sustaining methodology on Active Ageing be derived from the study, influencing the future policy on ageing?** Here again, one needs to be extremely aware about and work upon the limitations that pose challenges in making Engagement to take place. Currently, the contextual nature of these opportunities were proposed by me, by reflecting on the interactions that transpired. A possible way could have been those design opportunities being co evolved with the participants. But the time I had at hand and the challenges in managing the functioning of a prototypical App during this stage did hamper this idea and hence remains as an incomplete agenda of my intervention.

While interacting using Innernetz which is a network of human thoughts, emotions, connections and consequences, the preferences strongly indicate a “power of local” based approach in looking at Active Ageing and Engagement. This “local” can be the person herself as the point of reference and influence or the locality/commune while taking a spatial perspective. Here the possible influences of various interactions are oriented towards constructing something that is locally specific but externally oriented and influenced, like a large banyan tree. There is an acknowledgment of local abilities and intelligence but also an expectation to act as a broader receptor and synthesiser for influences and possibilities to create transformational qualities. The possibility to employ Transformation Design thinking with a focus on the “power of local” and integrating it

with the broader policy setting (usually a top down approach) could be a stepping stone to a real social transformation which is not only contextual but also integrative in its approach. In an ever connected world that is in a constant flux, the ability to seek for and appreciate those smaller locales might become a huge task in itself. Here the challenge might come up in the form of the cumulative energy required to undertake such a search for something that is familiar, yet remains hidden within plain sight. This is the space where Playfulness could really come into its elements and help provide new energy and perspectives in creating an alternate set of orientations for a transformative future. As a powerful mediator capable of creating alternate options of a projective future, the real power of Playfulness is in creating, structuring and in eventually playing with those very structures of thoughts that makes this probable future through the action of the players (the inhabitants of the same system). It could be in the form of personal play or preferably a group play capable of accommodating those diversities.

Another fundamental and powerful quality of play is its ability to take the various outcome possibilities (success, failure, or even a stalemate) in its stride. The euphoria and excitement of a success, or a dejection and delusion of a failure, or even a seemingly unending and stagnating circle of a stalemate are just qualities of play that the players accept and usually make sense of and give space for. There is a tendency or a belief that all of these qualities have their own existence and possibilities, but none of them are pervasive and perpetual. They are strongly influenced by the contextual and temporal qualities of the players, player environment and their interactions and a preparedness to work with these qualities as and when it arises. This could be a valuable asset while working in the area of complex transformational problems where the constancy with efforts could be the viable input and the probability of few forward strides the only possible outcome. In other areas of designing with complexities, there has to be an external effort to acknowledge and then learn to work with such outcome qualities. This becomes resource intensive, influencing the outcome directions. An awareness of Playfulness while designing with complexity offers an acceptance to those qualities where the stakeholders could start constructing strategies at a much earlier stage in overcoming the situation to create the next best state. In this project there is an acknowledgement of the process quality of play, which due to its innate qualities (including the 10 aspects I have represented), is able to create a cohesive connect between the themes, the participants (players), the play areas (Lego based interviews and Innernetz App), and the themes being investigated. There are cases in this project where some of those aspects of Play are clearly visible and hence recognisable. But there are those innumerable, undocumentable cases of Play which came up during the interview stages (in motivating, helping me and the participants to establish a working relationship, breaking a deadlock in our conversation) or during the Innernetz stages which would have driven this project forward. I truly believe that my own personal roadblocks in such a long project were overcome with an ability to be in Play and acknowledge the power of Play.

This is also the point where more effort needs to be put in, i.e. to make transparent this concept of play/playfulness and make available a wide variety of scholarships signifying

this relevance into academic discourse especially in dealing with complex transformational concepts. Play exists in the fringes of design discourse mostly through game design, playful product design, or certain aspects of user interaction and interface design. But it is thoroughly under-utilised and probably underestimated as a medium of much significance in the understanding of social complexity. With complex dynamic systems, play might have a lot in common in understanding the emergence and transformational qualities as play thrives on both of these factors. Here, a more thorough and multi-disciplinary play-based method could offer better awareness of the causes of changes and a way to negotiate with changes in a more comfortable manner. My project does provide the ground to relook at the tendency of user centricity in design with a play centric one as proposed by Köknar (2019).

For my specific project work, it could also be of interest to study the impact of Innernetz and Engagement from a long-term perspective. This could help understand the actual impact of engagement and also the various strategies required for maintaining and managing emergence over a larger timeline.

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"As you start to walk on the way, the way appears"

Rumi