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HISTORY	3
EXECUTIVE SUMMARY	6
1. INTRODUCTION OF MAZI SELF-REFLECTIVE EXERCISES	7
2. PART 1 - THEORETICAL REFERENCES	8
2.1 THE IDEA OF SELF	8
2.2 FROM TERRITORIALITIES TOWARD RELATIONAL SPACES	10
2.2.1 <i>The reflective practitioner</i>	10
2.2.2 <i>The stranger</i>	11
2.2.3 <i>Communication and collaborative practices</i>	12
3. PART 2 - MAZI VOCABULARY	14
3.1 PLACE.....	14
3.2 PARTICIPATION	14
3.3 PROCESS	14
3.4 PERSONAL POINT OF VIEW / PERSPECTIVE IN AN INTERDISCIPLINARY DISCUSSION	15
3.5 POWER RELATIONS IN PARTICIPATORY PROCESSES / INTERDISCIPLINARY PROJECTS	15
3.6 THE ROLE OF DIY NETWORKING IN EACH OF THE ABOVE DOMAINS.....	15
4. PART 3 -THE MAZI TOOLKIT: SPECULATIVE SCENARIOS	17
4.1 MAZI QUESTIONNAIRE SELF REFLECTION EXERCISE #2.....	17
4.2 NOTES ON FUTURE REFLECTIVE EXERCISES.....	18
REFERENCES	19
APPENDIX I	21
TABLE 1. MAZI UNDERSTANDINGS OF PLACE	21
TABLE 2. MAZI UNDERSTANDINGS OF PARTICIPATION	23
TABLE 3. MAZI UNDERSTANDINGS OF PROCESS.....	25
TABLE 4. MAZI UNDERSTANDINGS OF PERSONAL POINT OF VIEW	26
TABLE 5. MAZI UNDERSTANDINGS OF POWER RELATIONS	27
APPENDIX II	29
APPENDIX III	32
1. SELF-REFLECTION ON MAZI-TOOLKIT BY THE BERLIN PILOT	32
<i>Trying to describe the toolkit</i>	32
<i>Introduction or point of entry</i>	32
<i>*Target Groups: Who could these target groups be?</i>	33
<i>Structure or Navigation</i>	33
<i>Testimonials/Best practice stories</i>	33
2. SELF-REFLECTION ON THE MAZI-TOOLKIT BY THE CREEKNET PILOT	34
<i>How do you currently imagine the MAZI toolkit?</i>	34

<i>Recommendations for hardware options to best support the software tools</i>	34
<i>Negotiation between SPC and OU</i>	35
3. SELF-REFLECTION ON THE MAZI-TOOLKIT BY THE ZURICH TEAM (IN PROGRESS)	40
<i>INURA Zurich Institute - MAZI-Pilot Kraftwerk1, Zurich</i>	40
1. <i>Examples of tips for deploying your MAZI Zone in a public space</i>	43
2. <i>Examples of possible framings</i>	43
3. <i>Personal stories</i>	44
4. SELF-REFLECTION ON THE MAZI-TOOLKIT BY THE UNMONASTERY	44
APPENDIX IV	51
REFLECTIONS ON THE INTERACTIONS WITHIN MAZI CROSS-FERTILIZATION EVENTS.....	51
<i>Answer A</i>	51
<i>Answer B</i>	52
<i>Answer C</i>	53
<i>Answer D</i>	54
<i>Answer E</i>	56

Executive summary

The task 3.4 “Contribution to the theoretical body of literature on interdisciplinarity” aims to record and analyse the MAZI partners’ interdisciplinary and transdisciplinary interactions during the cross-fertilization events. This is the first version of the narrative regarding the outcomes of MAZI self-reflective exercises, an experiment on which we ground the following theoretical framework. The document is divided in three parts:

The first part is dedicated to a spectrum of theoretical references covering reflections on the self, which include reflective practices and reflections on the role of researchers relative to the research topic, as well as covering the various relationships established within the consortium in order to perform collaborative practices.

The second part is dedicated to the ongoing construction of a shared vocabulary for the collaboration around the design of hybrid space, for which DIY networking could play the role of a “boundary object”. So far in the project we have discussed about the understanding of “do it yourself networking”, and touched upon “toolkit”, “place”, “participation”, “process”, “personal point of view” and “power relations” within participatory processes and interdisciplinary projects. Here we present the collection of thoughts and understandings around these concepts.

In the third part we begin to document the speculative scenarios of the pilot project teams on the design of MAZI toolkit as well as personal reflections on the interactions within MAZI cross-fertilization events. We conclude with a few notes on future reflective exercises that we will experiment with, in the next cross-fertilization events in London in June 2017 and in Volos in July 2017.

1. Introduction of MAZI self-reflective exercises

Current interdisciplinary, and eventually transdisciplinary, interactions around MAZI toolkit are facilitated according to the following principles:

- a mutual understanding of basic assumptions, world-views and methodologies between researchers from different disciplines, promoting mutual respect.
- a self-reflective attitude toward our own collaboration, being a highly diverse consortium in which each and every partner comes from a different background and brings a unique perspective.
- a research paradigm that generates scientific knowledge that is transferable and applicable to address real-life problems.

Throughout the duration of MAZI, and mostly following the cross-fertilization events, we propose a series of self-reflection exercises on the interactions within the consortium. The goal is to self-reflect and describe our own views of the process, as well as the challenges faced and the compromises made in order to advance an agreed-upon perspective. At the same time, during these interdisciplinary exchanges, new perspectives open up. Together with the outcomes of these exercises, we aim to record in the project documents the discussions and negotiations that they might generate; based on the project's own 'experiments' MAZI research teams will add to the theoretical body of literature regarding interdisciplinary practices. In this document we present the answers to the second self-reflective exercise (Appendix III & IV), whose requirements are documented in the Part 3. Already in previous deliverables --in D3.2 that includes the answers to the first self-reflective exercise, and also in the deliverables on the interdisciplinary framework D 3.5 and D 3.6-- we have launched such interdisciplinary surveys that provided valuable information, on which we build in the following sections the theoretical structure of the self-reflective experiments.

2. Part 1 - Theoretical references

Before accounting for MAZI consortium's answers to the second self-reflective exercise, we propose a theoretical framework that will help future reflective analyses. The main elements of this framework are

- a) an exploration of the idea of the self, to which we attach three confining concepts namely frame, institutions and territorialities;
- b) relational spaces, as the context for interdisciplinary collaborations;
- c) two attitudes of practitioners while engaged in action, namely reflection-in-action, and awareness of the stranger's social role; and
- d) communication and collaborative practices including the role of triangulators, facilitators, catalysts and curators.

2.1 The idea of self

In our ongoing endeavor to contribute to building collective awareness, we begin with some first efforts in shaping self-awareness within MAZI consortium. At the same time we are aware [sic!] that, "The more concerned we are with ourselves, the more perversely entrapped in our idea of ourselves we risk becoming" (Marris 1996, p.28), and thus we alternate the self-exploration 'sessions', which take place in our familiar and comfortable spaces, with collective exposure of the individual answers depicting a diverse canvas, and so preparing a 'common' space where the team can engage in collective practices.

We are also aware that the idea of self is a cultural construct, therefore for our European consortium we draw on the work of the highly creative sociologist Peter Marris, who notes, "In modern Western societies, our sense of what is valuable is constantly justified by reference to this idea of the self. We have merged Protestant traditions of self-determination with therapeutic psychoanalysis so as to define not only mental health, but the purposes of education, art, and human relationships at large in terms of integrity, coherence, and autonomy of the self. [...] the management of uncertainty, in this view, rests fundamentally on developing a secure self, capable of trust and of sustaining its integrity in the face of frustration" (1996, pp. 26-28).

How this 'secure self' is reinforced / stabilized in dealing with uncertainty? For that, we introduce three concepts: 'frame', 'institutions' and 'territorialities', that have the capability to add to the understanding of the position of each consortium member, as an individual in her own walk of life, as one engaged in a relative context, and as an active participant within exchanges and collaborations in a relational space.

A '**frame**' refers to a conceptual structure used in thinking, an interpretation schema depicting simplifications of reality from where choices are made. It is a social construction that may consist of one's mental representations, on the one hand, as well as of the frames of communication between different actors. Although the frames are shaping our behavior, most of the time we are acting unaware of their influence. American anthropologist and epistemologist Gregory Bateson (1972) first articulated the concept of framing as "a spatial and temporal bounding of a set of interactive messages," and sociologist Erving Goffman (1974) assumed that the meaning of a frame has implicit cultural roots. As sociological institutionalists redefine culture as '**institutions**', we employ in this theoretical framework the term 'institutions' in their understanding that includes in the definition, "the symbol systems, cognitive scripts, and moral templates that provide the 'frames of meaning' guiding human action" (Hall and Taylor 1996, p.14). Institutions may be classified as formal (i.e., rules of the game, legal frameworks), informal (e.g., habits, beliefs) and means of enforcement.

In this first version of MAZI experiment in interdisciplinarity, we limit our references to the formal institutions that impact researchers' frame, and try to deconstruct what is already known (i.e., being more usual, visible, tangible). For instance, as formal institutions, we take into consideration professional affiliations and the disciplinary frame, but also the time budget allocated to the project tasks, and thus the degree of engagement and commitment to the project. Concerning the **disciplinary frame**, the 'formal' disciplines represented in MAZI are:

- computer engineering (UTH)
- design research and social infrastructures (UdK)
- computer interaction and social sciences (OU)
- interaction design and human-computer interaction - HCI (NU)
- an interdisciplinary approach to DIY, including urban studies and design, computer science and network technologies (NH)

In one of the self-reflective surveys led in May 2016 as part of the Self-reflective exercise #1, we gathered the following pool of skills of the MAZI consortium:

- A human centred approach to interaction design;
- Design and innovation process, service design;
- Assessing social and political implications, and imagining scenarios for implementation
- Discussing scenarios for implementation, political dimensions, social implications;
- When working with groups, invest mostly in encouraging others to find a voice;
- Talking with engineers and discussing best ways to solve a problem; also the political, social and designerly implications of concepts around DIY networks with the respective communities;
- Implementation, taking into account the political and social implications of the technology;
- Practitioner in DIY networking: set up own networked community. Academic researcher in DIY networking;
- The network engineering topics.

In addition to that, in a second survey that dealt with MAZI research teams' approach to the pilot projects, we documented the following techniques and understandings of applied research:

- speculative design: participatory creation and dialogue (NU)
- co-designing (infra-)structures for the grassroots (UdK)
- participatory action research (OU)
- interdisciplinary structures for information sharing (NH)

When these disciplinary frames are employed in the real-life laboratory, they have to adapt to fast changing environments and circumstances, as practitioners have to deal with unique professional situations that disobey predictability and control. In addition to these external conditions of practice, there are specific conditions, for instance, the multiple degrees of engagement and of commitment to the project play an important role in how professionals deal with the various tasks at hand. The frames and institutions guiding our actions are an active part of our knowledge that we engage in managing uncertainties. As Marris argues, "We try to bring the [intimate] relationship back into a predictable pattern, asking for or giving reassurance, offering rewards or punishments, using strategies we began to learn in our infancy, some of them so ingrained, so routinized and unselfconscious that we rarely examine them. These techniques represent what will be seen as part of our personality -- a

predictable pattern of response-- but they are essentially a kind of knowledge, interacting with all the other kinds of knowledge which make up our struggle to overcome uncertainty" (1996, p.11).

In context it is important to note that the informal institutions endure longer than the formal ones, mostly if they are strategies that we developed at early stages in our lives, and often their effect may be rather determinant in social exchanges and collaborative practices. Although in this document we do not deal with the role of informal institutions or with the means of enforcement, the self-reflection exercises will progress with more complex notions in the next two versions of the deliverable.

To come to the third confining concept advanced here, we project the web weaved by the MAZI team through its activity, with the help of a spatial metaphor. **Territorialities** are called in human geography (e.g., Sack 1983, Delaney 2005, Storey 2012), or in anthropology (i.e., on proxemics or how people use space, refer to Edward T. Hall 1974), the interrelations between space, power and meaning affecting individuals as an influence or control strategy. We suggest that becoming aware of each individual's territoriality, in terms of personal space, and then of the territorialities that each team shapes through specific actions may become critical in shifting into more fluid relationships and exchanges, agreed upon within the project team, that stimulate collaborative practices. To this end we introduce next the concept of relational space.

2.2 From territorialities toward relational spaces

While the relative space arises from relationships between objects, the **relational space** cannot be separated from time, and is "regarded in the manner of Leibniz, as being contained in objects in the sense that an object can be said to exist only insofar as it contains and represents within itself relationships to other objects" (Harvey 2006, p.271). Note that the territorial and relational processes coexist, and 'the borders' of territorialities are rather blurred than fixed. Nevertheless the (social) context and practice define these spatialities. As we will see in the section dedicated to communication and collaborative practices, setting up the space of interdisciplinary exchanges as relational is in concordance also with project collaborations and participatory design practices beyond the consortium, including community engagement in design of DIY networks, in spatial design and neighbourhood development, and the like.

In the next two sections we bring to the fore two practitioner attitudes, which can explain how the idea of self and the institutions defining the course of our actions may be reflectively undertaken, so to lead to shaping relational spaces for collaborative action.

2.1.1 *The reflective practitioner*

Following John Dewey's writings on the reflective practice (How We Think, 1933), by examining what professionals do and how they learn from experience, American philosopher Donald Schön published five decades later a seminal book that coined the term reflection-in-action. That means to be aware of, and reflect upon one's implicit knowledge base or knowing-in-action. "Practitioners themselves often reveal a capacity for reflection on their intuitive knowing in the midst of action and sometimes use this capacity to cope with the unique, uncertain, and conflicted situations of practice" (Schön 1983, pp.viii-ix).

Nevertheless, reflective practitioners respond to surprise through improvisation on the spot: "This reflection-in-action is tacit and spontaneous and often delivered without taking thought, and is not a particularly intellectual activity. And yet it involves making new sense of surprises, turning thought back on itself to think in new ways about phenomena and about how we think about those phenomena. And examples lie in ordinary conversation, making things, fixing things, riding bicycles" (Schön 1987). In reflection-in-action, researchers and practitioners have the possibility to choose between "different paradigms of practice", and also "doing and thinking are

complementary. Doing extends thinking in the tests, moves, and probes of experimental action, and reflection feeds on doing and its results. Each feeds the other, and each sets boundaries for the other" (Schön 1983, p. 280).

Schön stressed the limitations of the technical-rationality model, and opposed design as rational problem solving. He understands the process of design rather "as a conversation with the materials of situation" (p.103), like a back and forth talking with a particular situation and unique tasks. These 'conversations' should take into account the initial assumptions and future responses as well. In later takes on the self-reflection concept, for instance of van Manen (1990), is stressed more the retrospective reflection: once the practitioner steps out of the situation. However, in MAZI we consider that each unique case or pilot project is part of an ongoing process in which self-reflection takes place at frequent time intervals, usually in retrospect and in the mirror of other cases, whose experiences are exchanged during the cross-fertilization events.

2.2.2 *The stranger*

We introduce briefly the 'stranger' metaphor inspired by Georg Simmel's essay (1908) on this social type. The purpose is twofold. On the one hand, the technological dimension of the research topic of the MAZI project, DIY networking, is meant to have various tangible impacts including strangers' contact in localities. On the other hand, the relationship of the MAZI researchers and activists with the social dimensions of the research topic is in tension between being either too close or too removed from the communities that engage with the project. A stranger is "an element of the group itself [...] whose membership within the group involves both being outside it and confronting it" (Simmel 1971 [1908], p.144). Therefore, the dialectical tension inherent in the condition of being a stranger is useful in the sociology of practice, being appropriate for preparing practitioners to accept, decipher, and negotiate differences within the project work, and in heterogeneous contexts in general.

It seems that an important barrier for the proliferation of DIY networking technology that is meant to promote local exchanges is a tendency of many urbanites (that might extend these days even in rural areas) to protect their anonymity and autonomy, by avoiding difference and thus interactions with strangers (i.e., selective exposure). By proposing to reverse such tendencies, in the MAZI project we seek to develop novel ways for encouraging the exchange of information between strangers that live or are present in physical proximity, without sacrificing their needs for privacy and independence.

The research within MAZI is structured along an understanding of the 'smart city' vision to stimulate the natural capability to create or affirm group differences within urban life, which is supportive of social integration and cultural diversity in cities, potentially extending over time toward mutual respect and conviviality, and thus to the livability of the urban system. In particular, participatory design of the MAZI toolkit and its different instantiations facilitate inclusive (and playful) public discourses, contact and exchanges; they allow citizens to express themselves freely, to inform each other about issues of common interest, and ultimately to appropriate hybrid space according to shared values and common objectives. In context, incorporating the stranger's perspective in the hybrid spatial research and design practice can bring to local communities additional information that, rather than defining the solution, helps them to build a complex understanding of problems. Note that the motivations and timing of the strangers' intervention matter, and there are also different roles that the researchers/experts and local communities assign to these 'outsiders' (refer to Apostol 2007, or to MAZI D3.6 on tensions between research and action).

"The stranger will thus not be considered here in the usual sense of the term, as the wanderer who comes today and goes tomorrow, but rather as the man who comes today and stays tomorrow – the potential wanderer, so to speak, who, although he has gone no further, has not quite got over the freedom of coming and going. He is fixed within a certain spatial circle – or within a group whose boundaries are analogous to spatial boundaries – but his position within it is fundamentally affected by the fact that he does not belong in it initially and that he brings qualities into it that are not, and cannot be, indigenous to it" (Simmel 1971, p.143).

Simmel's central analytical interest is oriented toward sociological dualism in terms of conflicts and contrasts between the opposed categories; based on his theory of forms as synthesis of opposites, the stranger is at the same time in a state of detachment and attachment to a place, as well as in agreement and belonging to a place, and in confrontation with it due to an implicit urge toward experiment and innovation. Moreover, Richard Sennett (2002) argues that, the "modern tendency [...] to treat identity and roots as borders to be sealed rather than boundaries to be crossed" has its origins in the tensions between "the truth claims of belonging and the truth discovered by wandering", which is to be taken into account when identifying territorialities, and farther shifting into collaborative relational spaces.

In the process of developing a stranger-like habit in knowledge transfer from professionals to community members, certainly researchers, designers or activists have to take into account differences, to learn how to turn information from strangers into data that may be consulted in the future, and also to act reflectively in heterogeneous contexts that these differences generate. In the long-term MAZI wishes to continue the dialogue between researchers, designers, activists, communities and local authorities, as learning-by-doing processes; they can play the role of strangers, who in collaboration with external experts and local communities may design realistic solutions for specific cases, in the name of social cohesion, conviviality, and collective awareness.

2.2.3 Communication and collaborative practices

In the MAZI D3.6 Section "Tensions between research and action" we cite sociologist Marianella Sclavi (2006) with regard to **active listening** as a first step in establishing common ground in collaborative practices. The art of active listening requires changes of deeply rooted habits, and of one's attitude, from judging within her own 'frame' into changing the frame itself, reflecting while acting in a stranger-like role, which allows one to explore the meanings and experiences of others. Such practices take place in a relational space, where every participant 'exists' in relationship with others.

For changes to happen, active listening is alternated with emotional self-awareness, which is a dialogue between emotions and the way we deal with them, as well as with alternative dispute transformation, through negotiations (internal and external) and convergences. In the project we structure such opportunities for change, by placing the MAZI toolkit as a boundary object between different subsets of the project's actors, and by deconstructing the pilot entities and comparing them thoroughly. In this manner, by creating the conditions for meaningful conversations between MAZI consortium, we hope to open up multiple possibilities for collaborative work.

While these communication techniques will be developed in future work, here we highlight four connecting roles in bringing strangers in contact, in communicating within diverse groups and in collaborating effectively. These are the role of

- a) triangulator,
- b) facilitator,
- c) catalyst, and
- d) curator.

There are design elements that through their meaningful, and many times synergetic, presence can establish relationships, through face-to-face interactions and ad-hoc social networking. These elements are what William H. Whyte (1980) called '**triangulators**'. As Whyte stated, "Triangulation is the process by which some external stimulus provides a linkage between people and prompts strangers to talk to other strangers as if they knew each other", which means that "the choice and arrangement of different elements in relation to each other can put the triangulation process in motion (or not)" (online at pps.org).

If the enabling triangulation is played by one member of the project team, whether a researcher or an activist, she/he plays the role of **facilitator** of contact, exchanges, debates and interactions between strangers present in physical proximity. The stimulation and acceleration of these exchanges in establishing relationships is helped through a **catalyst**, which is simply an agent that provokes, speeds or quickly causes significant change or action. We conclude this series of roles that the researchers and activists may play within the collaborative interdisciplinary practice with the role of **curator**. The word 'curator' has its origins in the Latin 'curare' that means to give care, and it is at the root of diverse words such as 'cure' or 'accurate'. Hence we suggest that a curator is a guardian or a steward, who takes care of, and at the same time, may strive for an ideal of perfection.

3. Part 2 - MAZI vocabulary

This part reports on the ongoing construction of a shared vocabulary for MAZI collaboration around the design of hybrid space. For this novel physical and digital space, DIY networking could play the role of a “boundary object”, and thus we are exploring potential roles that this technology may play for various concepts, and over time record our understandings from this particular point of view. In the following text we account first for the aggregate answers on what the terms designate, and then present a brief overview of the imagined roles of DIY networking.

3.1 Place

There is agreement in MAZI team that 'place' designates a location --geographic as well as imaginary-- that has human and social dimensions attached: “it comes into existence by human consideration and becomes qualified by human experience”; it is invested with meaning generated by emotions, memories, symbolic value associated with a particular lived space (e.g., on lived space Henri Lefebvre, 1991; on identity M. Halbwachs; on experiences, uses and qualities Edward Relph, 1976); places are “connectors/triangulators of energies, bodies, identities, flows”... a place may be first imagined and later attained, or never attained in the case of utopia; it “might be imaginary or have become highly idealised with time. The physical spaces may no longer exist but the places reside in our memories and contribute to our sense of self.” At the same time, it is “a continuous feedback process or *perpetual beta*, where place is at the same time the material manifestation of social practices, and the trigger of new social practices/relations.” The full accounts of the survey on place may be read in Table 1 (Appendix I).

3.2 Participation

According to the understanding of MAZI group, participation is a complex concept that refers to the involvement in collective activities or processes. “The right and responsibility to stay informed and to be part in decision making processes.” It is influenced by the social and cultural contexts, and the environment in which discussions take place. There are several conditions that are mentioned in association with it regarding spatial, temporal, social and political dimensions. Among such factors that exist on a continuum and form several dichotomies are: remote or in physical proximity; direct or mediated (with and through technology); short term or long term; outcome-oriented or action-oriented; group or individual; active or passive; willing or unwilling; equal or unequal; powerless or powerful. In the case of HCI, for instance, interactions are premised on it. If social relations receive also some weight or hierarchy, then the participatory process shall be understood politically, as “Participation is intertwined with the process of placemaking, and this opens up questions of power relations”. It is important to note that the results of such processes affect everybody, those who have been engaged as well those absent. All the accounts on the concept are included in Table 2.

3.3 Process

A process is understood within MAZI consortium as a dynamic flow, a journey to a certain goal, the mechanisms and procedures by which activities are enacted or guided; “it may be perceived through its specific moments, which often imply gradual change” it is inextricably linked to the concept of participation, and can be “interchanged with “end” or “product”. The results become processual.” “On the one extreme a process can be linear and predefined through a set of “phases”, like requirements, implementation, evaluation, etc. On the other extreme, a process could be imagined as an evolution of one more interrelated threads of thinking/acting that could include some unpredictable “events” that cause a significant change in this evolution.” In more detail, the answers of the MAZI partners may be read in Table 3.

3.4 Personal point of view / perspective in an interdisciplinary discussion

When reflecting on what a personal point of view means in an interdisciplinary discussion, the MAZI team considered that a relatively challenging topic. There is agreement that acknowledgement and respect for personal perspectives depends on the social and cultural contexts, indicating contextual factors such as motivations, goals and experiences. Nevertheless, it is important to become aware of how one engages in participatory processes, and what the contribution to the conversation may be, by adding particularities toward shaping collective understandings. “A personal point of view has two elements. The first is one’s personal background, knowledge, needs, and objectives. The second is one’s personal perspective on the topic of the discussion and the perspective of the others.” Further details on the topic are recorded in Table 4.

3.5 Power relations in participatory processes / interdisciplinary projects

Power relations are of interest in the MAZI project, as often in participatory processes they may be uneven, whether that is actual or only so perceived. They reflect the ability to act, to influence collective processes, turning effective personal perspectives, intentions, goals etc (e.g., in the answers Latour’s description is been cited, “power is present where an actor affects the way of being of another actor”). Moreover, if the structures and relationships are unclear or ambiguous, and if expectations are not well understood and accepted, power relations can cause strong emotions and stressful situations. As a particular example for the MAZI consortium, “the ‘community’ partners have power as gatekeepers to access to the pilot study communities; the technical partners have power as they build the tools we wish to try out; some partners have more resources allocated so might have a greater ability to define the direction of a piece of work.” “The very framing of a process or an interdisciplinary project is an exercise of power” and a potential solution is “to alternate and give the chance to different actors to take the positions of power.” Table 5 contains the detailed answers.

3.6 The role of DIY networking in each of the above domains

DIY networking is a term advanced by Panayotis Antoniadis, in the interdisciplinary Dagstuhl seminar “Do It Yourself networking: an interdisciplinary approach” (Antoniadis and colleagues 2014), which was a first step in the organization of the MAZI project, and an important cross-fertilization event helping its conception. At later stages of research, the concept was described as, “DIY networking is an umbrella term for different types of grassroots networking, such as mesh networks” (Antoniadis 2016). As part of the MAZI vocabulary, in the first version of the MAZI deliverable “DIY networking as a boundary object in interdisciplinary research: vocabulary and methodology” we have explored in detail the understandings of this term, its capabilities and limitations, and its impact on individuals and communities. Here we describe its possible role for the concepts defined above namely place, participation, process, personal perspective and power relations in interdisciplinary projects. All the MAZI answers are included in Appendix II.

Regarding the effect of DIY networks on **places**, MAZI partners mentioned, digital layer, triangulation, memory, sustainability through community impact, stimulating the conviviality of places, promoting their identity, increasing their visibility and extroversion (e.g., both networking and connectivity), as well as their inclusiveness and enhanced citizen participation. They “can offer additional layer to make sense of/ gather data about/ share conversations around a physical space and add richness.” Due to their coverage, DIY networks are closely related to clearly defined physical locations, having the capability to mediate the spatial experience and thus influence the lived space, turning it into places. At the same time, they might offer only a restricted view of a place.

As for the role of DIY networking in **participation**, there is agreement that such technology mediated processes can enhance the interaction of people, improved collective awareness, and exposure to ideas that stimulates innovation. While it may promote self discovery, it can also distract from other issues. From the point of view of technology, “to support longevity of use, a toolkit should build on the existing skills of the users”, ideally “creating an environment that is safe to learn through trial and error, thereby supporting an iterative style of learning”. This

could be, however, “one more additional channel in an already saturated environment; it has the challenge of establishing and maintaining its validity”.

From the above understandings of place(-making), participation and process, it is evident that in context they are understood in relation to each other. As a consequence also the answers referring to the role of DIY networking technology in **processes** imply interrelationships: “The available tools of a DIY network are normally designed through participatory processes, thus enabling participants to address any difficulties on their intercommunication.” More specifically, “the MAZI toolkit creates a structure and a sort of “encoding” of the different phases and threads of the process.” It is important to be aware though that “a DIY network has the potential to enhance the process of communication or to disrupt it.” The clarity and simplicity of the setup seem to be agreed-upon qualities for a successful process mediated by, or in building, DIY networks; its advantage is the provision of “an alternative channel or approach for negotiating with technology”.

Similarly MAZI answers concerning a personal point of view as well as power relations in interdisciplinary discussions are interrelated. On the one hand, “DIY implies **personal perspectives** have greater authority as individuals or groups may be empowered or have greater influence over decisions over local configurations of networking technologies”. On the other, “no technology is a substitute for face to face discussions especially when it involves communication across disciplines”. In the MAZI project, “one of the challenges to structure the development of the MAZI toolkit in a way to include different points of view and to allow them to be expressed and become part of the collective identity.”

DIY networking has the potential to develop comprehension, improve engagement, and “localise **power relations** which may bring into play different factors: privileges local interactions over formal structures”. Note that “the control may be no more accountable if held by a single person or small group without mechanisms for differing opinions to be resolved without prejudice” and also control at the local community level may be reduced to a “small number of local gatekeepers” which may also reduce capacity to engage/change complex systems. “The developers of the MAZI toolkit and the administrators of a MAZI Zone have significant power over the design of the resulting hybrid spaces. However, moving power closer to the affected communities offer the option for debates, deliberations, and in general meaningful democratic processes including face-to-face meetings, assemblies, etc. And the more user-friendly the task of deploying and administering a MAZI Zone becomes the more actors are empowered to play this role.”

4. Part 3 -The MAZI toolkit: speculative scenarios

As an introduction to MAZI **toolkit**, here we present a few reflections on the term itself. In a recent conference paper, Smyth and Helgason (2017) build an argument on the composite nature of the term “toolkit”, which is placed at the border between the “tool” and the “kit”: the tool is a ‘soft’ element that allows for adaptive use, while the kit is a ‘hard’ element that has a more clearly defined final outcome. In the Appendix III we present some of the interpretations of MAZI toolkit, speculative design scenarios that each pilot project team proposes; these descriptive narrative will be followed in future reflective exercises by the recording of the negotiations and conversations that took place within the pilot teams, to build an agreed-upon scenario for MAZI toolkit. In Appendix IV we document personal/team reflections on the interactions within MAZI cross-fertilization events. Below we present the questionnaire.

4.1 MAZI Questionnaire Self reflection Exercise #2

MAZI Questionnaire Self reflection exercise #2

1. From your knowledge and experience, what do you understand by: place; participation; process; personal point of view / perspective in an interdisciplinary discussion; power relations in participatory processes / interdisciplinary projects?

2. What may be the role of DIY networking in each of these domains, and how could it either enhance or hinder them?

3. General comment: Please comment on the D3.6. Section 2 "Key concepts and individual perspectives". Is your own view represented in this summary of the previous questionnaire? And did it evolve since then and in what way?

4a. How do you imagine currently the MAZI toolkit? This is the documentation of the Self-reflection Exercise 1 (D3.6, Section 7.2), in which all researcher and pilot (activist) teams reflect (and negotiate between the couples) on a speculative description of MAZI toolkit as a 'boundary object' and reflect on the process of convergence to this commonly agreed outcome.

Some possible elements that could be part of the description include the following:

- a) Introduction and overview
- b) Structure of the toolkit
- c) Guidelines and scenarios
- d) Customization options for specific applications
- e) Physical representations
- f) Additional physical/hybrid elements
- g) Power supply
- h) Warnings
- i) other?

Note that the description of the toolkit does not need to be exhaustive, but include mainly a variety of possible elements, from the very generic (like the welcome message) to the very detailed (like a small warning in the guidelines for the deployment of the toolkit in a specific scenario), from text to images or even description of physical objects (like method-kit cards), from expert users to novice etc. Also, the pilot couples could choose to

follow an incremental approach and do first their individual descriptions of the toolkit before attempting to converge to a single description.

4b. Recording of the negotiation and the common outcome (when applicable).

5. Please reflect on the interactions in past MAZI cross-fertilization events (Volos-Sarantaporo, Deptford, Berlin, Bucharest-Sibiel, Rome) and identify important moments and lessons learned regarding:

- a) Your understanding of other partners
- b) Your role in the project
- c) The relationship between research and action
- d) The design of your own pilot
- e) Ideas for the MAZI toolkit in general

4.2 Notes on future reflective exercises

In this first version of the deliverable on “MAZI as an experiment in interdisciplinarity” we focussed on the people’s roles, in order to structure a framework to be used in **stimulating self-awareness** that precedes the formation of collective awareness. Therefore, the theoretical framework suggested in the first part of this document is to be consulted and used by the members of the consortium in future analyses of their answers included in the Appendix of this document, in other self-reflective exercises, as well as in reflective practice. Team comments on the peer accounts is also a possibility to ‘interact’ at these virtual ‘meeting points’ (refer to deliverable D3.2).

In future exercises we will explore also intangible resources and informal institutions (e.g., trust, honesty, reputation etc). At the same time, we will create **opportunities for change** during the cross-fertilization events and when placing MAZI toolkit as a boundary object in the middle of the project discussions.

Some topics to be explored during the next MAZI team interactions are the partners’ understanding of leadership, and if the relatively recent view of **leadership as partnership** is suitable for the current project activities. Then an important step in the project work of the pilot teams is to begin recording the discussions and the negotiation process in general, around the speculative MAZI toolkit, as a part of the self-reflection exercise.

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Appendix I

Table 1. MAZI understandings of place

MAZI understanding of place
a) in general a place can be determined geographically by coordinates, but can also be symbolic and important for identity (M. Halbwachs)
b) a physical location
c) a distinct location that can be visited or imagined
<p>d) Place is the location or site where activity occurs. It is related to the concept of “space” which is a more quantifiable physical or geographical concept, but place also includes social aspects and personal meanings. This way of considering place has been described by social geographers in relation to human experience. For example, Edward Relph, in <i>Place and Placelessness</i> (1976), discusses place in terms of the experiences, uses and qualities of a particular place, which set it apart from “other” places. He states that we, as people, can have relationships with places in a similar way to our relationships with other people. In this type of framing, a place is a conceptual construct, and can vary according to context, time, viewpoint etc. From an HCI or interaction design perspective, place is always an important factor to address and understand, alongside aspects such as “people” and “activity”, because designed systems can be created for specific places, or for particular types of place. Places can also be intangible or virtual, for example it is common to discuss online “spaces”, particularly in terms of social interactions among groups or communities.</p> <p><i>Place = Space + People</i>; Place is a construct that is a combination of a physical space and the people who interact in that space. As such, places can be temporal, only lasting for the period in which an individual is present. It is important to consider the experiences of the individual in the space, as it will be these that shape both the sense of place, and the subsequent memory of that place.</p> <p><i>Emotion</i> is bound up in the construction of place, as places are part of our memory and indeed our identity. They might be imaginary or have become highly idealised with time. The physical spaces may no longer exist but the places reside in our memories and contribute to our sense of self.</p>
e) place is a location invested with meaning (symbolic value associated with a particular lived space, i.e., Henri Lefebvre 1991)
f) Location, but also distinguished from ‘space’ by having its own special qualities: more than just a geographical identifier of a location, with the opportunity for emotions, stories, and cultural aspects to be also considered. A particular geographical ‘space’ may represent a very different ‘place’ for different people with different affordances or emotional attachments. This debate is very alive within the geographic community, e.g. Agnew (2011)’s “Space and Place” book chapter.
g) Where a person can be. Externalities can affect and impair, enhance and incentivise. Many have a personal choice, few have the mindset to attain such a lofty position.
h) From my side, and beyond the theories on space and place, a physical location can be considered a place when it creates the conditions for an interaction, explicit or implicit. I see places as connectors/triangulators of energies, bodies, identities, flows.
i) The City of Willows: *The City of Willows is the imaginal space of the traditional Chinese Tong or secret society, (especially the Hung Triads), its “Temple of Initiation”. The space itself, visionary or oneiric, contains within it (like a hermetic “memory palace”) the details of the political myth of the Triads, based on conspiracy to overthrow the Manchu dynasty and achieve the “restoration of the Ming”, i.e., of Chinese rule. G. Sorel would have understood

this mythopoesis, this passionate reading of a set of symbols which is like a place but not a place, like a text but not a text; which prescribes a “general strike” or uprising in the language of legend; which points to the future by pointing to the past, and to the “Sea of Images.” <https://hermetic.com/bey/tong>

The unMonastery is proposing to put its 200 year historical perspective to imagine the bulk of the MAZI toolkit as a 21st century Rituals Handbook For Building The City Of the Willows*, the Installation Guide For Pirate Utopias, Protocols For The Tong, or....

Talking about Hakim Bey - the ideal conception of the MAZI zone bears some resemblance to the ‘temporary autonomous zones’ of Bey. However, while TAZ is intuitive, temporary and ephemeral, a physical network tends to be planned, time-resistant and concrete. The question is, how to integrate the main characteristics of a TAZ in the design process of the network, and how to develop applications that demonstrate the same kind of sensitivity towards the present that is taking place in each moment when the network is live.

j) We understand *place* as a spatial entity that only exists by being actualized/considered by human consideration and becomes qualified by human experience.

The aspect we stress is that of *qualifying*, which here is used as an equivalent to making. In particular, it’s a central problem of Design to face *how* to qualify, i.e: *how* to make a place (placemaking). If we understand qualifying as designing, that leads us to the relation between the people and the place to be qualified, or in other words: it is to be decided whether we design a place “for/by/with” people.

We visualize the concept of place as a continuous feedback process or *perpetual beta*, where place is at the same time the material manifestation of social practices, and the trigger of new social practices/relations. A certain social activity shapes a social space that *takes place* that means & materializes in a physical space. When a particular social activity ceases, the space endures, and becomes a platform providing structures for new social activities. That could be the example of Prinzessinnengarten: a first human activity of cultivating brings out the spatial structure of the garden, which opens up as a platform that prompts/triggers new social relations. The construction of the Laube as well involved a certain process of participation, and as a physical object it acts as a platform for participatory practices.

It is well-known that attitudes become forms, and hence we have to realize that forms induce the models of social relations. (Bourriaud)

Table 2. MAZI understandings of participation

MAZI understanding of participation
a) Not being ruled from a small and probably powerful group of persons
b) the involvement to something with you being physically present or not. Could be either active or passive. Could be remote or in physical proximity.
c) involvement in an activity or process with others
d) Participation must be considered in relation to an activity, and usually with other actors or entities. This is a complex concept that includes attributes and parameters such as: Passive or active participation; Willing or unwilling participation; Equal or unequal participation; Group or individual participation; Short term or long term participation; Outcome-oriented or action-oriented participation etc. Most of these factors exist on a continuum, and a particular participatory situation can be described or framed according to these factors. From the perspective of HCI, participation may equate to interaction. Interaction is viewed as an active process that is premised on participation. Participation can be mediated with, and through, technology. For example, Virtual Reality and Augmented Reality seek to transport the individual to another reality by immersing them in that world or by layering digital data onto the physical world. As urban environments become increasingly laced with sensors, the active element of participation has become more blurred. Just being present in a space can result in the gathering of data. This could be said to be a form of passive participation by the individual. In the surveillance society, participation can no longer said to be always active.
e) being part of a collaborative activity or process, and usually participatory processes refer to citizen engagement in decision-making
f) Engagement and interaction within an activity, e.g. the MAZI project actions. This may be affected by the social and cultural contexts and the environment in which discussions take place.
g) More than a dialogue, more than voyeurism. Not for everyone, but everyone can see the results.see below.
h) The right and responsibility to stay informed and to be part in decision making processes. Designing participation processes is very complex and needs to take into account different ways to engage a representative sample of people affected from a decision or an outcome, different methodologies for informing people and for encouraging them to express their individual points of view in a creative and constructive way, and the role of key actors (the initiator, the mediator, and the decision maker / designer).
i) Permaculture: The development of an unMonastery MAZI zone needs to take the form of gardening - it starts with the study of the landscape, noting species, aberrations, non-ideal scenarios, an atlas of the flora and fauna, the climate, the direction of the winds, the materials that are available or not. It does not start with the harvest - it starts with gently becoming familiar with the environment. Later, by the time the designer herself has integrated her bodily fluids in the circular economy of the local ecology, it may become evident what may need to be growing anew, which species need support or artificially induced enemies. It may be the case, albeit not too often, that a new species need to be imported from far away. The questions that arise from previous pilots, is somehow aligned with the garden metaphor. How and why to become a community gardener with the purpose of implementing DIY technology? It is clearly absurd to point to the 'purpose' as the introduction of this technology. Without slowly grown reputation, no fashionable new gadgets will ever be used, no matter how great the designer's intentions are.
j) If we look at the concept from the perspective of the arts and design, participation implies the involvement of

people in the development of an action (process), which has a political connotation insofar as it questions certain structures of power. Participation in design and the arts is a form of operativity that understands human actions as political actions. In the arts this perspective can be traced back to the 60s, inevitably linked to a new political sensitivity that is embedded in our understanding of the concept today. It implies a certain way of being, requiring that all parts are active, producing parts of the process.

If we review the concept of participation under the light of our current context (Technological development, complexity, interdependence of problems,...) we might find the grounds to overcome a static/romantic aesthetics of participation and produce new forms of relations, new forms of proximity, new aesthetics. We can, in short, invent *new ways of being together* (Bourriaud).

Participation is intertwined with the process of placemaking, and this opens up questions of power relations: who participates in the qualification of a certain space? This question from the perspective of design challenges the roles of people in design, and consequently the role of design in society. In this sense we think about the idea of *Design as Infrastructuring* as opposed to framing design as problem solver. The metaphor infrastructure designates the creation of possibilities, in and through which stakeholders can create their own solutions.

Table 3. MAZI understandings of process

MAZI understandings of process
a) a process is a change of constellation, structure, values, framework. it can be physical, social, technological or all together.
b) the procedure towards a goal.
c) a set of steps toward a distinct goal
d) A process is the journey or route to go through in order to achieve a particular outcome. It comprises of stages, tasks, and sub tasks, and can be planned or unplanned. The choice of an appropriate type of process will depend on various factors such as; efficiency, quality of outcome, availability of resources, culture and experience of partners. In collaborative and team working, the process should be clearly understood and agreed by all the participants, although it is not always necessary for all partners to fully understand all the sub tasks of other partners.
e) a process refers to a continuum, a dynamic flow that may be perceived through its specific moments, which often imply gradual change
f) The mechanisms and procedures by which activities are enacted or guided.
g) Problematic, as it needs to be inclusive yet can become exclusive.
h) On the one extreme a process can be linear and predefined through a set of "phases", like requirements, implementation, evaluation, etc. On the other extreme, a process could be imagined as an evolution of one more interrelated threads of thinking/acting that could include some unpredictable "events" that cause a significant change in this evolution.
i) The Conversation: What questions to ask, to find out if it is at all reasonable to introduce DIY networking technology to one's community? What is the process, if one is an insider, or an outsider? What are the necessary preconditions in which a problem can be found, or a solution can even be brought up? How to gently study the environment, to be able to perceive needs that may or may not be solved by this technology?
j) <i>Process</i> in our understanding encompasses and augments the idea "end" or "product". The results become processual. This is inextricably linked to the concept of participation, since by highlighting the component of participation (in a process), the process itself becomes as important as the outcome. In the realm of design we can also detect a certain turn from the focus on the end-product to giving relevance to the process, which, as mentioned above, comes from the the way we understand design and social relations today. Going back to the example of Design as Infrastructuring and the idea of Perpetual Beta: societal, political, neighborly problems can by definition never be entirely solved, as they are constantly evolving. Having durable socio-material structures in place that enable neighbors to tackle their problems equipped with novel tools and methods can have more long-lasting and profound societal impact on e.g. a neighborhood than the solution to a concrete problem.

Table 4. MAZI understandings of personal point of view

MAZI understanding of personal point of view
a) social scientist in a practical world working together with architects, planners, engineers, historians, economists
b) A challenging discussion for the participants due to lots of different definitions and way of thinking. The evolution of such a discussion can be assisted by having initially a small talk defining all the important glossary/dictionary and most importantly having the people to meet each other and break the ice.
c) POV - contributions
d) Personal points of view and perspectives should be acknowledged and respected within interdisciplinary discussions. These can be indicators of underlying contextual factors such as motivations, goals and experiences, which are relevant to the discussion. Further comment on this aspect would depend on other issues such as the purpose of the discussion, for example: reaching collective understandings, creating social cohesion, decision making, activity planning. If the discussion is for the purpose of productive working, then respect for other disciplines and what they can contribute to the overall goal becomes important. Interdisciplinary working is not necessarily reliant on the total understanding by everyone of each discipline, as such a process can take many years and encompass many projects. Each discussion is a small step in that journey and can be focused on specific projects. Working on shared projects is useful for gaining understanding of interdisciplinary processes - learning through doing.
e) how one may engage in participatory processes, adding particularities to the conversation toward shaping collective understandings
f) The individual's perspective as presented by them through interactions in discussions. This may be affected by the social and cultural contexts and the environment in which discussions take place
g) As above (Problematic, as it needs to be inclusive yet can become exclusive). Can devolve into petty politics.
h) A personal point of view has two elements. The first is one's personal background, knowledge, needs, and objectives. The second is one's personal perspective on the topic of the discussion and the perspective of the others. This means that points of view have an initial point of departure but they can be drastically changed upon the initiation and during the duration of the process.
i) The stone: The unMonastery operates with ancient art forms. We believe in holy stones and the pleasure of each other's company. Fundamentally analog, we witness time and again that stretched across an online platform - vital essences fall through. Slowly, we are building rituals that anchor our work in the collective body; thus it may be presumed that any use of smartphone paraphernalia is an anathema. If we can sing, we sing. A meeting with the community is best held over a plot of vegetables.

Table 5. MAZI understandings of power relations

MAZI understanding of power relations
a) there are all kinds of - not sure whether there is a general pattern
b) According to my little experience there could exist such power relations, since there is always someone to coordinate and manage such processes, bringing inputs together etc.
c) tentative, respectful, frustrated
d) Power relations are often uneven in participatory processes and interdisciplinary projects. These imbalances may be actual or perceived, and may manifest in many ways, both at a personal, individual level, and at an organizational level. A few examples would be due to differences in social status, organizational role and authority, social networks, knowledge and skill, confidence and levels of self-expression, control of finances and resources. Power relations can cause strong emotions and stressful situations, particularly if the structures and relationships are unclear or ambiguous, and if expectations are not well understood and accepted.
e) the ability to act, influence and turn effective the personal perspectives, intentions, goals etc brought into the collective process, so they are represented in the (final) outcomes
f) Arnold and Stillman (2013: http://ci-journal.net/index.php/ciej/article/view/577/957) provide an interesting exploration of what power, and empowerment mean in community informatics. As they note, discussions around power relations ask the question what power is; which has been considered by writers such as Foucault, Latour and Marx. Arnold and Stillman use Latour's description: power is present where an actor affects the way of being of another actor. Within participatory processes, and interdisciplinary projects, we can explore how each actor (e.g. individual, or participating organisation) may affect another through their access to resources (knowledge, access to others or networks, finance, equipment, etc.), legitimacy (within the project or situation), structure (organisational, such as 'Work Package leader' but also using societal frameworks including gender, age, etc.), and agency (freedom to operate, make decisions). Some of these may be contested or differently interpreted within the project by the participants and power relations may affect interactions even when unconsciously employed. For example, in MAZI, the 'community' partners have power as gatekeepers to access to the pilot study communities; the technical partners have power as they build the tools we wish to try out; some partners have more resources allocated so might have a greater ability to define the direction of a piece of work. The privileging of the English language in MAZI might also affect power relationships. An academic's contribution to a debate in a community engagement event might be given greater weight than other contributions because their educational status is seen as somehow having greater legitimacy, or on the contrary, less validity because a local citizen's opinion is considered more 'authentic'. Similarly within the research project membership, complex, informal mechanisms for managing power can also affect decision making processes as well as the formal status or roles as laid out in the written documentation. This reminds me of Hofstede's cultural dimensions theory: different cultures manage relationships in different ways. While Hofstede was referring to nationality perhaps different disciplines can also be typified in a similar way? Some might use formal structures for making things happen, others use more informal mechanisms for negotiating outcomes.
g) As above.(Problematic, as it needs to be inclusive yet can become exclusive.) Always needs good administration and strong leadership.
h) Power relations are hidden in every aspect of a participatory process. The choice of the participants, the methodology, the facilitation, and so on. The very framing of a process or an interdisciplinary project is an exercise of power and instead of trying to remove power from such relations, which is impossible, it is better to alternate

and give the chance to different actors to take the positions of power.

i) Conflict: The unMonastery is a loose grouping of engaged souls gathered around a beautiful idea. In theory we are techno-savvy and should reap all the benefits of online bliss. In practice, we have explored every misunderstanding known to humankind.

Online collaboration is a treacherous path: amid an avalanche of virtual info packets, gentle suggestions provoke bastant rebuttals; painstakingly-honed, multi-faceted philosophic declarations, get instantly hacked into twitter bites. And, while second language approximations get routinely spell-checked to avoid the most blatant faux pas, many a splendid rhetorical arch crumbles in translation; both fail to preserve any degree of eye twinkle. Without an emotional matrix that embraces each other's voice, people are only rarely on the same page.

Appendix II

MAZI interpretation of the role of DIY networking for the concepts of place, process, (citizen) participation, personal perspective, and power relations

a) DIY networking can bring together communities, groups, persons. It can also support their attempts for more social sustainability - this is at least the hope.

b) The DIY networking could transform a place to a living place with definitely more visibility and extroversion. This means more capabilities for locals, connection with the Internet, connection with other places, more options for entertainment, dialog, democracy, knowledge. DIY networking increase and facilitates participation of people in any case. DIY networking has inherent bottom-up characteristics, assisting this way the discussions between people of heterogeneous backgrounds. The available tools of a DIY network are normally designed through participatory processes, thus enabling participants to address any difficulties on their intercommunication.

c) place - networking activity happens here | promoting identity, restricted view

participation - the interaction of people with ideas | breeding innovation, promoting self discovery, distracting from other issues

POV - insight on a process and impact on others

power relations - developing comprehension and improving engagement

d) Place: DIY networks are clearly closely related to “place” as they are deployed in relatively bounded spaces, and are only accessible to those within those spaces. Therefore they might contribute to “placemaking” within certain locations. All of the other factors discussed will also be relevant to the creation, installation and maintenance of DIY networks. Whether DIY networks enhance or hinder them would be affected by how they are managed in practice rather than by any factor that is intrinsic to DIY networking itself. Any technology is heavily influenced by human and social factors.

Technology has the potential to mediate the experience of place and in that respect DIY Networking is no different to other types of technology. Where the approach is different is in its focus on a physical location and the involvement of people.

Participation: Key to the success of a DIY network will be a low threshold for entry on to the network. To support longevity of use, a toolkit should build on the existing skills of the users. Furthermore, it must support learning with the goal of developing autonomy and ownership on the part of the user community. Central to this process will be the creation of an environment that is safe to learn through trial and error thereby supporting an iterative style of learning. Depending on the specific context of deployment, the success of the Mazi toolkit will not just be measured by its initial use, but also in terms of its repeat use.

Process: Key to successful take up of a DIY network will be the clarity and simplicity of setup and entry to the network. Too complex a process and potential users will be lost.

Interdisciplinary Discussion: No technology is a substitute for face to face discussions especially when it involves communication across disciplines (this is one of the main challenges facing the Mazi Project). A DIY network has the potential to enhance the process of communication or to disrupt it - enabling technology mediated communication does not lead to interdisciplinarity per se, but it can facilitate the process. It must be grounded in trust among the participants and a mutual respect for individual disciplinary contributions.

e) Place: Can offer additional layer to make sense of/ gather data about/ share conversations around a physical space and add richness; the recent sale of UK online neighbourhood tool to US organisation (Nexdoor.com

acquiring Streetlife.co.uk) shows the need to be clear about what the long term offering is, flags up how people have preferences, data concerns; competing in an environment where there are already a number of global and local alternatives e.g. FB, Nextdoor, Streetlife) so the value of the DIY version has to be clear, e.g. data privacy, locally owned and managed –those these assume a locally run system is somehow better which might not always be the case – a large corporate entity may have more rigorous data management processes than a one-person local outfit;

Participation: Could be one more additional channel in an already saturated environment; it has the challenge of establishing and maintaining its validity;

Process: Providing an alternative channel / approach for negotiating with technology;

POV: DIY implies personal perspectives have greater authority as individuals or groups may be empowered / have greater influence over decisions over local configurations of networking technologies;

Power relations: Potentially localises power relations which may bring into play different factors: privileges local interactions over formal structures. This may be both positive and negative, for example while power might be drawn back from centralised government/ globalised corporate authority to local control (positive), the control may be no more accountable if held by a single person or small group without mechanisms for differing opinions to be resolved without prejudice (negative). Use of open source systems that are locally controlled and managed give local community more control over their data and services but may also reduce capacity to engage/change complex systems resulting in small number of local gatekeepers (if the one person in your neighbourhood DIY network who knows how to fix the connection to the internet goes on holiday for a week and the connection fails, there is nobody else to turn to and you have to go without the internet until they return).

f) The topic itself can be hindered (rendered almost lifeless) when there is a small pool of available volunteers/participants with no skills to be able to understand or practice what DIY networking is able to facilitate. Seamless integration into existing systems are a point of entry - everyone wants to be online, many also understand that they are the product. Few are able to act, or have the time.

g) Place: triangulation, memory, digital layer, information sharing without commitments

Participation: different ways to express oneself could lead to improved collective awareness, which is the basis of participation which is more than a competition for pushing personal agendas.

Process: the MAZI toolkit creates a structure and a sort of "encoding" of the different phases and threads of the process.

Personal point of view: It is one of the challenges to structure the development of the MAZI toolkit in a way to include different points of view and to allow them to be expressed and become part of the collective identity. The same holds, in a sort of "fractal" pattern for the resulting MAZI zones that will be deployed with the use of the MAZI toolkit.

Power relations: DIY networking shifts power from global corporations to local actors, but this does not mean that power relations are not eliminated. Quite the opposite. The developers of the MAZI toolkit and the administrators of a MAZI Zone have significant power over the design of the resulting hybrid spaces. However, moving power closer to the affected communities offer the option for debates, deliberations, and in general meaningful democratic processes including face-to-face meetings, assemblies, etc. And the more user-friendly the task of deploying and administering a MAZI Zone becomes the more actors are empowered to play this role.

h) We understand the MAZI idea as an attempt to bring together two flawed technologies that both once held the promise of a vibrant interface for social interaction, collective work and political action based on openness and equality. The two technologies are: direct, citizen led face-to-face meetings (these have proven to inherently propel communities towards exclusion, and often are slanted towards furthering inequality and injustice) and the internet (which turned out to be neither democratic, nor open, nor safe).

The technology to support a MAZI network has been around for decades. The challenge, and our only place for potential innovation, lies in the creation of a process for asking and answering the questions: How, For What and Why the technology gets to be deployed in the first place. A very real possibility is that building this network turns out not to be the best way to proceed. And then, if it is, after all: Who builds it ?, who maintains it ?, what it does, and what it doesn't do? These questions are not to be answered by the technology itself; these are questions that need to be asked before anyone starts contemplating the hardware components, not to mention software, for a MAZI zone.

The unMonastery contribution to the MAZI zone toolkit is cultural. Our proposition is that the DIY networking toolkit itself is just an addendum to the actual community building activities. That a 'collective awareness platform' can only be rooting in a visceral experience of the collective - the first design steps must include tracing the community.

To meet the challenge of conviviality we must first create a luscious, rich, physical and psychological mythology that defines, (maybe only implicitly), the dreams, hopes, aspirations, and self-image of the community, its past and its projected future. The bulk of The Handbook For MAZI needs to be a detailed workbook for community 'presencing' (to use a term familiar from theory U - <https://www.presencing.com/theoryu>).

Appendix III

1. Self-Reflection on MAZI-Toolkit by the Berlin Pilot

Trying to describe the toolkit

As departure to our discussion, we felt the need to talk about what we mean when we speak of the “toolkit”. In discussions during consortium meetings, we felt that the toolkit was spoken of, with very different pictures in mind.

To give the toolkit some contours we would describe it as followed:

- a container/vessel/environment allowing people with different skillsets and interests to build their own diy-networks; and to learn about them just as much as they want (careful demystification of networking tech as a black box
- it is not a pre-defined structure with only one possible set outcome (i.e. the social determinism of e.g. facebook) but an open set of tools.
- consequently, we see the toolkit as an ecosystem rather than a service with predefined logics: It is open to further developments and add-ons by others (e.g. to the global open-source scene). To give some analogies: it is like creating a language which people can use to write their own songs in.
- It seems important that users will be able to interpret the toolkit in different ways and, if wanted, leave the role of “user” to become “co-creators”.

This is still a meta-level description and to take a step further in describing it as an artifact, we see it more as a collection/a set of written/audio/visual manuals/guidelines, testimonials and best practice, samples of applications, possibly short movies, hardware resources (or the description of the same), software resources and codes. The “object” is a digital platform (website?) containing all of these resources, will become a vast repository of these elements and thus has to be structured in a specific way (which we describe further down) in order to provide guidance for heterogeneous users (and e.g. not under- or overwhelm them).

The key, and the challenge of the toolkit lies in its openness and therefore we stress it once again. We do not imagine an IKEA type of box where you assemble the parts and get a ONE specific chair/bookshelf etc. – this would obviously be very limiting and not the goal of the project nor the idea behind diy-networks as such. Rather, we anticipate the toolkit as being about the creation of an ecosystem that allows for a multitude of diy-networks to be developed by others, broken, reassembled, deployed, tested, taken to the moon and back.

Introduction or point of entry

The point of entry into the toolkit is essential. For us as Berlin pilot, with a team spanning from tech-savvy to tech-interested/informed to tech-novices, we can be an asset in describing what is needed as entry point for a broader public, i.e. not the digital engineer.

The intention of the introduction is to entice interest for several target groups*. An idea would be to start with some kind of userprofiling: Who are you? What do you want? What level of digital know-how? With this profile, the user would get some pre-curated information like testimonials or success stories that link to the elements of the repository in use, possibly a “recipe” for a device just to get started (what would be the MAZI “hello world”?) or a deep-dive into the resources themselves.

For the novices it is important to break down the initial reticence some users may have and make it seem possible to do for even the most beginners.

****Target Groups: Who could these target groups be?***

- There is the layer of digital literacy, spanning from digital engineers, coders, digitally informed, to interested but not experienced users.
- There is also the layer of personal backgrounds: from artist, community workers, activists, researchers, hackers, engineers.
- The different target groups have very different needs how they are communicated with and what entrypoint serves them best. Whereas some users might just need a list of resources to pick and choose from for her special needs, others will possibly need a more descriptive narration or storytelling to make the information and resources accessible. Others again may not want to understand the particularities, but learn enough about the resources available to be able to use it (it's important to provide the opportunity to grasp the idea and to make use of it without evoking the need to understand the technology).

Structure or Navigation

When we discussed the structure of the toolkit, we incorporated the initially planned structure of hardware - software - guidelines, but we see these “buckets” or “containers” of resources that can be navigated through in different ways. Some possible scenarios of what this could look like:

Testimonials/Best practice stories

Through different kinds of testimonials from the different pilots, we could find an interesting way to navigate through the resources. Take for example the story of how NAK is making sense – and later use of the technology. This could be an easy introduction for a more beginner/activist/urbanist/teacher-learner/etc.- type user, learning about the process (even possibly some workshop methods we used), but also of the different prototypes and needs these prototypes meets like archiving, recording, broadcasting. Through linking bits of code, visuals, manuals, laser-files, etc. within the testimonial, the user reaches different types of information, curated for this crop into the MAZI-universe.

Take now a testimonial from James Stevens. This would probably interest a totally different type of user and will lead to another navigation through the resources.

Recipes

Another way to pave the way for new users is through recipes combining hardware, software and recipes. This follows a more deterministic logic with one set of outcomes, but can pose as an entrypoint for other challenges, needs and resources of the toolkit-platform. To give an example. Let's say one has the recipe to build the existing MAZI-Zone with just the ether-pad. One would get a list of ingredients: raspberry pi, small SD-card, router and battery. Then the code for the etherpad (Github), then the step-to-step manual what to do. After the recipe comes a prompter saying more or less, “with these same ingredients, you can also make a” or “another co-working tool could be...” and so on.

The idea of set recipes is obviously far from an open-end-process. It can however be an important entry point for newbies. It is a way to bridge the gap of imagination when someone without much knowledge of digital networks is asked to “imagine all the possibilities of open, diy-networks”. Most people are left with a blank when asked this, but once given a hands-on experience of what it could be, look and feel like, the imagination circulates freely.

Buckets of Knowledge

The two prior examples are of pre-curated navigations through the platform. It is however essential that all information is also accessible in its totality for anyone to browse through. It shouldn't be hidden behind our curation.

Prompting the political interest for diy- and locally owned digital networks

One central goal of MAZI is to spread the knowledge, development and use of DIY-networks. The project, or at least many of the consortium members have a strong political impetus, in why we engage with this topic. This motivation should not get lost in the toolkit. Advocating for the toolkit is not just a technical but also a political issue, hence the toolkit should also provide information and material on the political idea behind.. One idea of making this explicit is to have some "cheat-sheets" or "How-to's" provided to those talking about why it is interesting to think about and develop locally owned diy-networks. One inspiration for what this could look like is: <https://sandstorm.io/community>, where sandstorm provides future advocats/ambassadors etc. with slide-decks that can be adopted by anybody.

Inspiration from others

Some sites that are combining some elements of what we have been discussing are:

<https://sandstorm.io/>

<https://wordpress.org>

It is the didactics behind these websites that are interesting to look at.

2. Self-Reflection on the MAZI-Toolkit by the Creeknets Pilot

How do you currently imagine the MAZI toolkit?

As a number of accessible tools which can facilitate greater engagement/collaboration with others in the public domain, ownership of the data as a verifiable outcome. Also a means of achieving greater local democratic procedures within a grassroots organisation, with a hope for greater collaboration and flattening of disparities in skills.

A set of software tools provided within a single configuration tool that can be set up independent of other resources, i.e. guidance should be provided with the installation itself.

Recommendations for hardware options to best support the software tools.

Guidance for set up, configuration, use, maintenance: manuals, howto's, example scenarios of usage. The case for 'why use a DIY network' has to be clearly made: there are many ways for people to exchange knowledge and resolve neighbourhood challenges. Without technology people can address challenges through public meetings, informal conversations, voicing opinions to representatives and asking them to solve problems on their behalf, other traditional direct action approaches. There are other technology supported existing options, MAZI is not operating in a vacuum: e.g. connecting to the internet by commercial providers either over commercial WiFi, 3G, or public sector provided WiFi; and using existing well known services like Facebook.

A live webspace for community information exchange and development, to enable potential MAZI users to see how the MAZI toolkit has been used elsewhere, to be able to download the software, CAD files, guides, to be able to contribute to discussions, ask questions, and read FAQs.

Liquid democracy in action: Personalisation of MAZiKit at a local level (preferences offered by an administrator, or a local group, such as which software to install from the option-set, whether to use a standalone MAZiZone or to set up as a mesh network, etc.) will form a set of proposals that move towards the final shape of a MAZiTool instance (at a hyperlocal level- one group, one locality). Recording this set of options (a preferred set of choices) could be recorded by the system, and if passed upwards (in the first instance to each pilot team, and to the lead technical partner) in effect give us a liquid democracy style 'voting mechanism' that will identify common preferences and hence inform the design process of the overall system in an ongoing manner. Central developers will be aware of what favoured options are and where development effort should be placed.

Documentation: There are many good examples of well documented and community-engaged open source projects and we could gather together examples and learn from their best practices (e.g. the piratebox.cc website)

Negotiation between SPC and OU:

SPC have much greater experience of the local situations, and also greater expertise around development of networking toolkits so they have been the more active partner; OU has some experience of building local network technologies. In general we have been in agreement about the development requirements of the toolkit: though our primary task in the first year has been to build community engagement and gradually understand challenges and needs and from there start to build scenarios: from these we'll be able to think in terms of the concrete details.

There's been the emergence of the understanding that 'offline networking' is difficult for people to understand, and examples are required to frame this concept. Paul (SPC) has brought the idea of 'prototyping' to the group - early stage prototypes that allow potential participants to discuss what a MAZiToolkit might look like, what a system that could help them resolve their needs might contain, but equally a 'straw man' that can be knocked over to focus discussion about what might be required; this includes pencil and paper discussions and mapping exercises.

Speculating on what they might need versus what might do the job- using existing tools (e.g. owncloud, etherpad)

To gain a better feel for the software tools and hardware configurations being proposed for the MAZi toolkit, the OU/SPC team has incorporated some into our workflow: e.g. using the MAZi v1 toolkit with the etherpad to record our own meeting minutes and those of the MAZi-Mondays to show participants at the meetings what might be possible and to find out issues. This has shown us, for example, that etherpad can be rapidly taken up by a wide number of people and that while it is straightforward it is not as fully fledged as e.g. Google Docs; that there have been issues logging in to the MAZi toolkit using smartphones; and that the initial survey tool (limesurvey) has proved very complex to use and so has been effectively put to one side by the OU/SPC team. We also can see that sandstorm is highly configurable and have set up an instance within the SPC network for our purposes.

It is clear that the communities with which we will engage will have limited technical expertise so for the toolkit to thrive it must be well documented, and have an interface that allows some level of engagement without high levels of technical skills

We have to recognise we are one of many options for communities seeking to share information, make contacts, network, or promote their cause; MAZi needs to make a clear offering to stand out from other existing and often better known options.

We recognise for MAZi to succeed, the system needs to be self-replicating without requiring our continued input, that implies documentation and systems to allow this option.

Liquid ; configuration - feedback - proxy

Configuration - defining functionality of the MAZiZone , adoption of the toolkit , setting out of requirements, identification of scenario, selection of tools, refinement of interaction, quality of data, privacy, publicity, transportability, scalability, accountability. at each scale, a nest of preselected configuration options both

ideological and pragmatic can be revealed and refactored to smooth out the instillation of each new MAZiZone instance.

Feedback in the form of personal responses, group dialogue and advocacy, global conditioning and reflection may become instrumental in the refactoring of key configuration aspects.

Proxy configurations (presets) arise as known good configuration combinations are acknowledged and implemented (a local group may come up with a group of configuration settings that work well, and are passed on to others as 'proxies') . E.g. we may select the mesh option from an existing MAZiZone configuration that works well with another group, but still wish to customise the shared network name so we select mesh which then presents option for ESSID, wpa, channel etc.. Many other configuration options remain nested inside the selection but this still allows for OWN (Open Wireless Network) custom configuration to also be offered as a preset. So we have nominated a proxy configuration.

Paul (SPC): Community development using technology requires skill and constant work (time/effort), which has to be factored in at every stage. Being transdisciplinary, the resulting effort requires great resources:

Front of house- garnering support through good engagement after presentation of potential options (pretotyping) and having the support from...

Back office- ability to hand over admin tasks to others able to comply, understand the rationale behind the request and respond accordingly- either for clarification to complete a task or to state a lack of completion, and why.

Mark (OU): Negotiations for the CreekNet pilot have involved communicating with many of the MAZI consortium partners, both individually and in group settings, informally (asking questions and engaging in debate) and formally (responding to requests for information).

The understated element of our investigations is time. Time it takes to deal with the basic practical processes, time to revisit and tease out the process steps, to revisit techniques to be able to advocate a path for others to follow.

A significant early challenge for the CreekNet pilot team was the use of email as significant communication channel in the MAZI project for toolkit development across the partners, with a high volume of emails for discussion and decision making processes. Across the project, we are now moving towards mechanisms for communicating effectively to enable the specification and delivery of prototypes and managing time pressure.

UTH have been key partners as the lead technology developers: the OU and SPC do not have coding expertise to develop our own software so we are dependent on support from UTH to provide prototype tools and services that we can try out for CreekNet. UTH is therefore a critical gatekeeper for CreekNet.

The overall shape of the software prototype is in the process of being defined and this negotiation requires clarification about the level of prior expertise or technical knowledge held by each partner. The first version of the software documentation required some technical understanding not present across the CreekNet team. Informal conversations have clarified some points and we are reflecting on the processes for developing project documentation.

The process for selecting software is currently under development; there is a challenge that many packages exist for a range of purposes and we could be overwhelmed with choices. The CreekNet team proposed a shared spreadsheet to allow partners to post contender software packages as a recording mechanism. The criteria for selection of packages from this list is something that needs to be carefully reflected upon. UTH as lead developer has noted their requirement for a selection process: the software development team cannot test and install every package suggested. Within the CreekNet team SPC have very much taken the lead on recommending software due to their expertise (OU has more limited experience).

MAZI has struggled at times perhaps from the common challenge of community engagement processes running in parallel to technical development: it is difficult to offer a specification for development before community

processes have identified needs – and then to keep communities ‘warm’ we need to show some technical responses quite rapidly.

So far we’ve not had formal conversations regarding some aspects of the toolkit as we are just emerging from the CreekNet Phase 1 community engagement part of the project, but we anticipate conversations with UdK regarding physical casings in the future as some of our scenarios expect equipment situated outdoors and in harsh conditions. UTH have been responsive in exploring alternative powering approaches (e.g. solar powering) for such circumstances.

Guidelines and templates will be important, for the majority of the potential groups and individuals we expect to work with we will need highly accessible, comprehensible guidance suitable for people with a range of digital literacies. We cannot, for example expect interaction with the command line for all participants. This has caused us to reflect on the variety of potential participants and how there may be differing needs and levels of customisation expected. We should find a way of gathering together examples of good current documentation and practices to help us iteratively develop guidelines.

James (SPC) Notes

My start point in response to this request is to review the toolkit already in use on a day to day basis.

On the one hand the backpack is always brimming with physical tools to construct and repair network infrastructure, reassemble technology and record information about conditions.

There is a low cost laptop running linux which is often reset, so only stores copies of current work attached is a drive with a set of disk images for installing operating systems and applications.

Nested within a second bag is a selection of network and AV cables, wireless adapters, Raspberry PI, 'bodge' plugs, sports camera, lights and usb battery.

As we work with many different groups at different locations I often carry a lot of access keys and the map of how and where to use each set.

We have an equipment store and public workspace where the stock of recycled technology is repaired and ready for reuse. Computer components we purchase are delivered and also sorted and stored there.

Our network tools are spread across a range of public and private network services. We have built several data repositories [omv, sandstorm, owncloud] containing media and software which have to be maintained and replicated for redundancy. Google accounts required for use of android smartphones provide some media and document backup.

We host data servers in our small datacentre [noc] and hire access to co-location hosting services across the UK. This enables us to respond quickly to setup requests. At weekly workshops, local people can attend with their sick laptops and work together to repair and refurbish.

Solutions to the variety of issues raised, questions asked and suggestions made, are negotiated among those present and time is dedicated to exploration of options before action is taken.

We pick and mix solutions from this palate at low cost and high impact.

Cash is rarely exchanged except to cover costs for parts and cake.

Little note taking or account of effort and reward is recorded as this can diminish the subtle and quantum sense of purpose and reciprocation taking place.

Thinking about MAZI DIY networking toolkit, how best to condense information and resources into a portable and versatile package for common use.



The sense of identity, ownership and respect is of primary concern. Trust between collaborators builds as exchanges are acknowledged. In this case The MAZI consortium has a gift to offer neighborhoods, a DIY networking toolkit. We understand its value is in the giving. Acknowledgement of that gift is most welcome but not a requirement.

A neighborhood may identify itself or not, may invest time and energy as we have, or not, to make use or abuse its value. We would hope the gift can be passed on to others, modified and manipulated to suit unexpected situations and conditions.

Self replicated. Qaul.net fully understand this principal. Berryboot system makes this a reality. Each instance of the Mazi toolkit must be able to copy itself with or without accumulated data.

Self contained. Mazi toolkit must be able to operate in isolation from other network access. So not depend on email based password recovery or non local resources for basic functionality

Self protected. Isolation isn't always suitable so the MAZI toolkit needs to assume VPN service and ssl certification options to evade surveillance and manage monitoring.

Self aware. MAZI toolkit must be able to gather intelligence about it's networking environment and report its operational status. Douse anticipates this and strives to provide tools.

At first boot we need to see the status report, confirming local host resources, attached devices, network environment and if upgrades available.

Once conditions are better understood, operational needs can be set by selection of tools, establishment of services and ports.

The configuration of who, what, why and where of the toolbox are primary admin options. Form entry should provide control of all config options available. Generation and management of encryption of keys will be needed.

Once configured, the services presenting application interface and reporting options can be offered for non admin web based access. This must be accompanied by context guides for each element of the admin and general MAZI use. FLOSS manuals set a strong standard for these aspects of open source with quality supporting documents created and conformed and updated by the operators of the applications. These guides/manuals should also be widely available.

Github is already in use for MAZI and increasingly this is the accepted method of making updates and enhancements available to the public for download and ongoing development of MAZI toolkit.

The selection of supported applications, plug-ins etc. need to be available both as in-line updates and downloadable installation files.

Peripheral devices scanners and drives attached to the PI hardware draw more power with each additional service some more than others.

Appropriate power monitoring needs to be considered particularly when using battery and certainly with solar power.

Successful configurations should be downloadable so they can be stored and shared. See below for more detail.

We want to make expert tools available for novices. We can't make light of the complexity but need to present the options in digestible modules with integrated support and guides. Our novice users will need to spend their time to cover deficit of expertise. I agree the scenario type guide a good way of developing confidence and communicating options.

An early scenario of James (SPC), November 2016:

Feedback on MAZI Toolkit interface (draft) James Stevens, SPC, Slacktivist November 3rd 2016 Dear Ingi and all,

I have just been reading the feedback Panos has provided and it prompts me to comment. I also met with Paul Clayton again today to continue our conversations about how best to frame the the more formal offer we must begin to make to our pilot contributors.

Both your interface outline and Panos description starts at a point along the process well ahead of our current understanding.

What elements require interfacing? What steps in the process can be relied upon and widely replicated?

Who are we engaging with and how will our toolbox register as worthwhile candidate for those seeking sustainable solutions to their neighborhood needs?

Our ability to successfully engage and communicate relies on successful exchange of information where full acknowledgement and account of process can be held privately, shared amongst peers, revisited and repeated as needed.

Individuals in MAZiZone, seeking information, engagement and a rewarding experience, need time to investigate options, seek guides, trigger responsiveness and test reliability. This is an incremental process of building trust, sharing information and accumulating value that can't be rushed.

To this extent we can offer introductions to some examples and directions to take toward use of available tools, celebrated techniques and expert guidance. These views may be just the accumulation of our research and experiences or the insight of activists and innovator experts, the personalised accounts of experience and implementations of projects and practices.

Any expectation that these benefits and beneficial out comes can be somehow automated, simplified and attributable to technological mastery alone is a false one. At each step of the way, be it utilisation of smartphones, low cost computers, fields of sensors, open sources or personal publishing, we know how widely each others ability, expectations and values differ.

The interface we need is first one, which acknowledges our interactions and improves collaboration options. Devising switches in a web interface may satisfy a short term patching of current options but I suspect will require eternal adjustment and reconfiguring to match the adaptability we will be required to offer as the toolkit evolves. So with that in mind I urge for low level modularity and configuration malleability.

We must also begin the interface of engagement at the start point of interaction not at the moment we decide how to set the network interfaces. All the configuration options taken, need to be portable so that the progress made in one situation can be carried forward, replicated and improved upon without breaking with progress. We may also like to tear off views/configs that have been successful and reuse them in other contexts, collate them in libraries and manage repositories to share.

The who, why, what, where, when, all figure in this view. So please, let's prioritise contact with the individuals, help them identify with their peers, connect with communities and celebrate neighborhood. We don't need to identify them but it's important that they feel they are in contact! All the options for identity management, group development and public dissemination in their control.

Their expression of why? MAZI, is vital information for us so lets hear their story. We already have many examples of our pilots project, methods and motivations, with many more yet to be expressed and acknowledged. Better still, the detail of activity and ambition articulates our nurturing role and in return we gather crucial data to inform on tools and practices. The record of their hyper local experiences and deep knowledge of the conditions and environment should accumulate where they are most valued and available, that's locally, portably and now!

So, I believe our toolbox must accommodate processing of all these data forms and the 'interface' we offer should unwrap in to comprehensive set of detailed configuration options, data feeds and transmission streams which can be directed, modulated, monitored and transplanted at will.

We need to be able to download a configuration, post by email or share as we like.

3. Self-Reflection on the MAZI-Toolkit by the Zurich team (in progress)

Speculative toolkit description – NETHOOD/INURA Zurich Institute

NetHood, Panayotis Antoniadis, and INURA Zurich Institute, Philipp Klaus, worked closely during the first months of the Kraftwerk1 pilot (January-February) around the potential uses of the Hybrid Letterbox in the Kraftwerk1 premises.

The overall goal was to produce a first set of installation and deployment guidelines that will be helpful for people like Philipp, i.e. experienced event organizers and facilitators but with limited knowledge on technology to use the Hybrid letterbox for their community's objectives.

Phillip expressed the concern that if people in Kraftwerk1 wouldn't find it interesting from the beginning they wouldn't give easily a second chance. Being somehow burned out from community activities they are particularly conservative in engaging in new activities.

For this, we decided to be very careful and advance step by step starting with experimental deployments with no specific framing and objectives just to see how people would react. In the first months we attempted two installations.

The first was a short-term one, a few hours, at the so-called Pantoffelbar, a small lounge place with a bar for gatherings, discussions, etc, inside the main building. The letterbox was installed there during the opening times of the „Consume Depot“, the local food store run collectively by Kraftwerk1 residents.

The second was a long-term one, one week, at the Kraftwerk1 Bureogemeinschaft, a cooperative working space where INURA Zurich Institute is based, and NetHood also rents an office.

After these two experiences with the Hybrid letterbox and the MAZI board application, which will be documented in detail in Deliverable 2.7, Design, Progress, and Evaluation of the Kraftwerk1 pilot, Philipp produced the following reflection on different situations/framings in which the Hybrid letterbox could be used and which could become part of the MAZI toolkit.

INURA Zurich Institute - MAZI-Pilot Kraftwerk1, Zurich

Hybrid Letterbox – HYBLBOX - hlb

How to use the letterbox for social interaction and processes?

STARTING QUESTIONS

- how to improve living together?
- how to improve people's involvement?
- how to improve social processes?
- how to improve participatory processes?
- how to mobilise people to take over tasks for the community?

THESIS

The Hyblbox is a powerful tool for communities. Its successful deployment needs the development of guidelines – a toolkit.

50 ways to use the Hyblbox

The development of a toolkit for the use of the hlb needs a lot of testing in different situations and constant observation of each step, every action, all the impacts.

Settings and situations for hlb deployment

for GAMES

Quiz: A person or a groups draws/sketches something or writes a question on a card. The other group or persons guess what it is or answer the question. May be through devices.

- who has the correct answer? who is quickest?
- everybody writes or draws an answer on a card within 1 min. then everybody's card is inserted in the hlb and the answers appear on the screen
- ...

Situation

Small groups 3-15 persons. With projection.

as OPINION/IDEA/WISH/FEELING COLLECTOR (Survey)

what do you think about ?

Situation

- Individually: people walk into the Konsumdepot and are asked their opinion or wishes for the assortment, opening hours, other. Projection not needed.
- Small group: groups work on ideas and share it through the hlb. With projection.

as DISCUSSION FACILITATOR

- Small group: sharing ideas in a group. Workshop situation. 5-10 persons. Insert a card and explaining the idea or opinion. Next person inserting a card and widening the topic or opposing the first and so on.
- Assembly: as in the small group but needs more moderation

as TOOL for Decision Making

- Opinions / proposals to vote about are displayed on screen.
- Compare, evaluate... Use cards or devices (Attention moderation when using devices... May be switch off moderation).
- People can vote through their devices anonymously.

as TOOL in PLANNING PROCESSES

Situation

Example: A square in a city is planned to be upgraded. With projection.

- Assembly: people come together to discuss and develop changes
- What do you like about the square? cards
- What do you not like about the square? cards
- What is missing? cards
- What do you wish/what are your ideas? cards
- Cards with plan of the square people can draw on them
- display all cards
- discussion – what are the differences/similarities etc.
- new ideas
- ...

NETHOOD Guidelines for the Hybrid letterbox

Philipp’s approach is to discover the use of the tool from the „bottom-up“ by letting people experiment with what is there. The hybrid letterbox is a powerful object and can attract most of the attention leaving the online space as a second priority. Panayotis tried several times to discuss the technical dimension and the various possible configuration options for the online application, the MAZI board, like constraints on the number of contributions by each person, but all these sounded like a second priority. The biggest concern was and still is the big question, why such an installation would be useful/interesting for the people involved.

Based on our first experiences, a set of simple guidelines/tips were produced, which although focused on the case of the letterbox, many of them are meaningful for a wide variety of MAZI zones.

Placement: Make sure that the letterbox is reachable by kids and people with special needs, and if possible include a projection to include all people in the „discussion“.

Poster: Prepare two posters: 1) one that explains what is all about and 2) one for the details for connecting to the captive portal. Don’t forget to mention if there is Internet access available

Bootstrapping: Insert a few cards prepared by you to give the “tone” and encourage people to do the same. Also upload some photos from the web interface. Perhaps one with our own photo and an introductory message.

Early adopters: Approach people you already know and ask them to try it out in order to make sure there are not technical issues before opening it up to the „public“.

Strangers: When you approach passers by ask them first what they are doing, what is their name. Don’t give the impression that you are trying to „sell“ something. The letterbox should fulfil a role, not being an objective by itself.

Online space: Because of the dominance of the letterbox it is important to visualize the online application by placing a device close to the letterbox for people to realize that there is more than the box itself.

Cards: Consider separating the cards from the letterbox, for example by distributing cards when people enter the space of the installation or even in their personal space (e.g., in their offices or sent by regular mail)

Other types of toolkit guidelines

Based on the first experiences of Panayotis Antoniadis as an initiator of MAZI zones in different conferences and meetings, some „fragments“ of the „guidelines“ section of the toolkit are included below divided in three categories:

- Generic tips
- Framings
- Personal stories

1. Examples of tips for deploying your MAZI Zone in a public space

- It is advisable to prepare a printed sign with the details on how to join (click here for templates)
- It is advisable to prepare a small introductory text on the splash page and the wordpress site (make sure that in the image there are already placeholders for these and, again, assume a certain level of technical competence. E.g., editing an html file)
- Before inviting strangers, try out the behaviour of the whole system with a few friends. Ideally, do the same in the public space by approaching "friendly" people that approach and show them step by step on their screen how to use the different applications

2. Examples of possible framings

Party zone

This is a very simple and very useful set-up that could be used as an "entry point" to the idea of a MAZI zone. Here is how the story goes: You organize a gathering in your place (or there is one at your friend's house). Since there is a password for your WiFi connection you should either let your guests know about the password (some will not see the signs, will ask you, they will not type it correctly, etc.) Instead, you could just plug in your "dual mode" Raspberry Pi, which is already configured to be connected to your home WiFi router, offering your Internet connection without the need for a password. In addition, your guests can type the URL of the local network, e.g., <http://party.zone>, (ideally part of the SSID). There they can share photos taken during the event but also older photos with the people in the room. You could even have a projector showing all these photos on the wall.

Guest book

A MAZI zone could be permanently attached to a specific place and play the role of a digital guestbook, which could be even complemented with a physical one (a real guestbook). You could also print out a few previous postings from the „digital space“ for stimulating participation. This will allow your guests to share their impressions from visiting the place and collectively build its digital identity.

Collaborative work

In a conference or a workshop, people that would select the appropriately chosen SSID would be immediately part of an online community whose members are *de facto* in the same place and using applications such as NextCloud and etherpad carry out collaborative tasks with high speeds and easy access.

Internet-based platforms, like Dropbox, have certain "objective" drawbacks for this scenario. First, everyone should have registered, or register ad-hoc, to the selected service, which excludes those that do not wish to do so; certain platforms have undesirable privacy, copyright or pricing policies for some, and others are reluctant to create yet another account on their colleague's favorite platform just to share a few files. Such people might need to be unnecessarily excluded or forced to subscribe to a service they do not approve. Moreover, the network connectivity offered by a local WiFi network is always faster in both directions (download and upload) and more

private than the corresponding Internet connection, which might be a rather important feature for large, and private, files. And even if the common assumption is that Internet connectivity is not generally an issue, in reality, most of us have experienced connectivity problems in the most unexpected situations (e.g., visiting an institution with strict access policy, or a crowded place with a saturated Internet connection) that have forced us to share our slides through passing USB sticks over the table, eventually failing to leave the room with all the relevant content in our computers.

3. Personal stories

INURA conference 2016 Panayotis Antoniadis, 19 September 2016

I created two "versions" of the MAZI zone. 1) A very "friendly" one called "mazizone" providing freely Internet access (through my smartphone) where people had to explicitly go to <http://mazi.zone> to access the local services 2) A "subversive" one as a "proposal" for our activists from the Ministry of Space, which "promised" free Internet, through the SSID "ministry_of_space_free_Internet" but in reality directed the user to a captive portal with a photo from the group (which could be replaced with a manifesto, informative message, etc) [they liked it a lot and next week I will be in Belgrade to work with their team on developing this set-up into a real urban intervention] INURA people showed a lot of interest and they tried all our demos when asked during presentations, but also in various moments during the conference.

I describe below my experience as an administrator in different occasions: In the very first demo, presenting the "friendly" version to a group of 40 people (some of them having just arrived from the airport and needing desperately Internet), I experienced first-hand the fact that there are only a few people that can connect simultaneously to the Raspberry Pi. [A technical person in the group said that the problem was from DHCP and he could enter if he fixed an IP address, while others couldn't].

This was a little of a failure and later I hesitated inviting many people to join at the same time. Later in the same day we did more demos, the "subversive" version and the two demos from UdK, the letterbox and the MAZI archive, and they worked well but not many people engaged, a few did though, (perhaps also because of the earlier failure).

During the conference I was carrying the "friendly" version with me and many people were connecting and approaching me for questions. And some times I was also approaching friendly people to check the local applications together with me. This was a very encouraging experience because in such intimate situations everything worked very well and people liked it a lot. The most popular local app was owncloud, and many uploaded their photos, especially in the bus during the return to Bucharest (an "ideal" situation in which one can take advantage to engage people, especially if he/she has access to the bus audio system :-)). Etherpad was also liked but since we had a well working online version people were using that one. Interestingly, it became the main organizational tool of the whole conference (people commented how easy it was to set-up the agenda in a bottom-up self-organized fashion compared to previous years)

During the 2nd MAZI 2 hour parallel session at the retreat, I showed again the "subversive" version and there were a few people that were not forwarded to the captive portal. Not sure why, but we need to try more devices and operating systems.

4. Self-Reflection on the MAZI-Toolkit by the unMonastery

HAS TECHNOLOGY A FUTURE ? - An Installation Guide

An unLuddite Disruption

The unMonastery does not do technology for the sake of technology. Firm believers in the fast approaching era of unCivilisation, the unMonks educated themselves only to remain informed cynics.

The plan was simple. A widely known but never mainstream piece of DIY technology was going to be offered as an alternative to the ubiquitous internet. Money was to be spent developing applications and scenarios that would lure people off-line. Since the technology existed long before the MAZI group formed, and the core idea was the development of local applications, what else could the MAZI toolkit ever be than a cultural Installation Guide?

From the beginning the unMonks recognised that they were swimming against the stream. Instead of jumping on the pilot band wagon with its self-justifying circular design process in which a handful of specifically selected groups seek miraculously convenient appropriate problems for the technology to solve; (and where the reports arriving back at Brussels miraculously tended to confirm the usability of what was being tested). The MAZI process was suspiciously unambitious; we the unMonastery would have to write The Book.

“We believe that the dislocation of ethics and politics from the sphere of action to that of form of life represents the most demanding legacy of monasticism, which modernity has failed to recognize. What is at stake is life and the way of living - not the rule, but the life, not the ability to profess this or that article of faith, but the ability to live in a certain way, to practice joyfully and openly a certain form of life.” (The unMonastery Minor Manifesto)

Actionism was not their approach. Acknowledging that often doing nothing is best, the unMonastery insisted on holding up a form of life in which ethics and politics acted as different grades of gravity that held their universe together, rather than a dynamic single-directional force. Their challenge was, as they knew from the beginning, whether they could establish a core material that acted as the source of this gravitational pull. The unMonks placed their hope in culture.

Mostly words, for better or worse.

How do you imagine currently the MAZI toolkit?

Our proposition is simple: innovation with regard to the toolkit will not emerge in the technological part of the toolkit. Therefore we are focusing our attention to create a set of tools that must be deployed before the MAZI zone is built: Tools of conviviality, employed in order to cultivate a community that will sustain and will be sustained by the MAZI zone. In some way, social innovation as permaculture is the purpose of any CAPS project. The unMonastery proposes to prototype tools, scenarios and thought experiments in order to develop a blueprint for the slow development of a culture around each MAZI zone that gets established.

Maybe our MAZI contribution to the toolkit should be The unMonastery Game.

Hacking Myths

The dilemma of the Internet is that it is infinite - when everyone has access to everything, common ground is obscured. We all hold a slice of reality, but congruence with our neighbour's slice is highly negotiable. The philosophers can continue this examination of how and why both democracy's 'community meeting hall hierarchical people's justice model', and the 'distributed, hands-on keyboard collaborate tech-monopoly game' fail. We seek to generate examples of how both can work. Central is a recycling Ivan Illich's working slogan from 1973: Tools for Conviviality. The design of compressed local interactive functions that facilitate desirable common needs without alienating the user group is a considerable challenge; everything teaches us that one doesn't begin at the tech end first.

We understand MAZI idea as an attempt to bring together two flawed technologies that both once held the promise of a vibrant interface for social interaction, collective work and political action based on openness and equality. The two technologies are: direct, citizen led face-to-face meetings (these have proven to inherently propel communities towards exclusion, and often are slanted towards furthering inequality and injustice) and the internet (which turned out to be neither democratic, nor open, nor safe). MAZI seeks to employ DIY offline networking

technologies that can mesh the best features of net assisted community nurturing without importing the inherent problems.

The technology to support such a network has been around for decades. The challenge, and our only place for potential innovation, is how, for what and why the technology gets to be deployed in the first place. The questions of : who builds it ?, who maintains it ?, what it does, and what it doesn't do? are not to be answered by the technology itself; these are questions that need to be asked BEFORE anyone starts contemplating the hardware components, not to mention software, for a MAZI zone.

The unMonastery contribution to the MAZI zone toolkit is cultural. It seems likely that we were adopted by the MAZI project to supply philosophic street cred, this is not in our nature the be polite performing seals -- the challenge we throw back is to ground them in the glacial work of 'work'. Our proposition is that the DIY networking toolkit itself is just an addendum to the actual community building activities. That a 'collective awareness platform' can only be rooting in a visceral experience of the collective.

To meet the challenge of conviviality we must first create a luscious, rich, physical and psychological mythology that defines, (maybe only implicitly), the dreams, hopes, aspirations, and self-image of the community, its past and its projected future. The bulk of The Handbook For MAZI needs to be a detailed workbook for community 'presencing' (to use a term familiar from theory U - <https://www.presencing.com/theoryu>).

The goal is to bring together and enable harmonious and resilient communities to be formed around initiatives and projects that are relevant to them. This means that the bulk of the work is to be done before anyone even starts thinking about talking with a technologist. The unMonastery has dedicated 4 books to these problems, and is proposing to put its 200 year historical perspective to imagine the bulk of the MAZI toolkit as a 21st century Rituals Handbook For Building The City Of the Willows, the Stakeholders Handbook For Pirate Utopias, Protocols For The Tong, or

"The City of Willows is the imaginal space of the traditional Chinese Tong or secret society, (especially the Hung Triads), its "Temple of Initiation". The space itself, visionary or oneiric, contains within it (like a hermetic "memory palace") the details of the political myth of the Triads, based on conspiracy to overthrow the Manchu dynasty and achieve the "restoration of the Ming", i.e., of Chinese rule. G. Sorel would have understood this mythopoesis, this passionate reading of a set of symbols which is like a place but not a place, like a text but not a text; which prescribes a "general strike" or uprising in the language of legend; which points to the future by pointing to the past, and to the "Sea of Images.""
<https://hermetic.com/bey/tong>

Talking about Hakim Bey - the ideal conception of the MAZI zone bears some resemblance to the 'temporary autonomous zones' of Bey. However, while TAZ is intuitive, temporary and ephemeral, a physical network tends to be planned, time-resistant and concrete. The question is, how to integrate the main characteristics of a TAZ in the design process of the network, and how to develop applications that demonstrate the same kind of sensitivity towards the present that is taking place at any moment when the network is live.

MAZI zone therefore needs to take the form of gardening - it starts with the study of the landscape, noting species, aberrations, non-ideal scenarios, an atlas of the flora and fauna, the climate, the direction of the winds, the materials that are available or not. It does not start with the harvest - it starts with gently becoming familiar with the environment. Later, by the time the designer herself has integrated her bodily fluids in the circular economy of the local ecology, it may become evident what may need to be growing anew, which species need support or artificially induced enemies. It may be the case, albeit not too often, that a new species need to be imported from far away.

The questions that arise from previous pilots, is somehow aligned with the garden metaphor. How and why to become a community gardener with the purpose of implementing DIY technology? It is clearly absurd to point to the purpose of introducing this technology. Without credibility, no new shiny toy will ever be used, no matter how great the designer's intentions are. A long term commitment to any particular community is key.

What questions to ask, to find out if it is at all reasonable to introduce DIY networking technology to one's community? What is the process, if one is an insider, or an outsider? What are the necessary preconditions in which a problem can be found, or a solution can even be brought up? How to gently study the environment, to be able to perceive needs that may or may not be solved by this technology?

Has Technology a Future? - tools for conviviality, a work station

Background: The unMonastery is a loose grouping of engaged souls gathered around a beautiful idea. In theory we are techno-savvy and should reap all the benefits of online bliss. In practice, we have explored every misunderstanding known to humankind.

Online collaboration is a treacherous path: amid an avalanche of virtual info packets, gentle suggestions provoke bastant rebuttals; painstakingly-honed, multi-faceted philosophic declarations, get instantly hacked into twitter bites. And, while second language approximations get routinely spell-checked to avoid the most blatant *faux pas*, many a splendid rhetorical arch crumbles in translation; both fail to preserve any degree of eye twinkle. **Without an emotional matrix that embraces each other's voice, people are only rarely on the same page.**

Subjective representation of a distributed collective requires rituals of rooting.

The patron saint of the unMonastery may be Ivan Illich. His 1973 book *Tools for Conviviality* took apart the international development fixes then being offered Latin America. These had a nasty tendency to mechanise exploitation. The argument of 'appropriate technology' was that it should be owned and repairable by the village. Illich stated that travelling any more efficiently than by donkey back or a creaky, overladen, third-world bus virtually assured that you would leave your soul behind. (ref. Your personal last scrape with international airports.)

The unMonastery experiences a dire need to bridge this dichotomy. In the six years spent pursuing this noble work has left more than its fair share of awkward, irresolvable misunderstandings along our trail of grand, but ill-prepared expeditions. The digitally assisted itinerary, inevitably collides with analog appetites. As our info exchanges get measured in GB, are there protocols that acknowledge and even depend upon the deeper resonance of bus and donkey?

Kokkinopilos

The next iteration of unMonasticism should be surrounded by safety nets; it isn't. We are going half way up a world famous mountain in search of enlightenment from the Gods. We may seek to protect ourselves through flimsy ritual, but we shall always remain puny mortals. Hopefully, we have enough experience under our belts to acknowledge that, with all the individual baggage of subjective associations, social fragility and chronic impatience, any spiritual journey can only be indulged in on the way down. Establishing a working base-camp involves much prosaic labour. Why on earth would a Raspberry π improve our chances of survival?

The unMonastery 'Test Lab' now being designed for Kokkinopilos cannot be high tech. Some things in life are best left non-digital: the dance, solid sleep, and food are definitely preferable when experienced in analog form. During previous visits we have sinned gravely by frequenting a local taverna in a manner that has failed to reflect frugality, and that has unfortunately established us as a bit of a cash cow. Our first task will be to establish a working kitchen and a produce procurement protocol in a village without shops. Our second step will be to pace out the contours of a primary meeting area disguised as an alternative gardening plot. Only then can we address the ether.

Rise to the challenge - our documentation may be as eccentric as the unMonastery itself..

Tools for C

A social clinic for the future?

The unMonastery struggles to define itself. The skeletal idea that gives a nod to an unmentioned spirituality, and allows concerned citizens to adopt an historic collective living and service lifestyle, has definite traction. That it provides a retreat from the one man / one car model still proffered by the glossy mags, means that it attracts many with a critical bent whose cultural associations around monasticism are so rich that individuals quickly glimpse their personal version of the core idea and run triumphant up the nearest hillside. The keepers of the fire are forced to consider this a blessing --- until we can offer more concrete walls and a string of functional communities, we must smile at this ardour. Perhaps, at some time in the future this running may be choreographable, perhaps. To counteract any frustration resulting from the overinflated theory and a pathetic symbolic practice, we have tactically aged our expectations by stretching the tale of unMonasticism over a 200 year frame, in the early days of the movement the question of how much un and how much monastery follows us like an albatross. Beyond this there is only patience. And impatience.

The unMonastery

Inside the walls we have a lot to learn. We speak of unCivilisation and recognise that we mean de-civilisation; we speak of frugal abundance and have a hard time recognising that this includes our body chemistry. Finding a balance is an imperative; imperatives seem alien to seekers. Proposals abound, but delicate choices are no longer an open question.

From the beginning The unMonastery has declared that it will not find its place within its walls without focussing upon its meeting with those outside its walls. The act of imperialism that transplants a sisterhood of monks to a corner of the earth that may be understandably resistant to change, needs tactile deliverables if it is to cease to be an act of imperialism. The unMon will travel upon what it offers its environs.

One of the patron saints of the unMonastery is Ivan Illich. His 1973 work -- **Tools for Conviviality** -- comprised perhaps 9% of our initial library in the Matera Prototipa. In his argument, conviviality, the mutual joy of working together, is to be the benchmark of all sustainable human interaction. Only, of course, he didn't use the word sustainable, as it only became introduced as the go-to overriding virtue with the 1990 Brundtland UN Report on the State of the Planet that basically concluded that everything was fucked.

The unMon is strategically not that pessimistic; we launch our initiatives predicted upon a belief in small islands of negotiated survival - gathering almost forgotten subsistence know-how and any brilliant applications of modern ingenuity that can better conditions during coming transitions. It is our working premise that conviviality is a superior virtue to lift our efforts beyond the inevitable symptoms of despair.

MAZI as a TestLab

The Hunched Backs of Mazi

A question with the push to de-civilise ourselves, is our identity with our inhuman tools -- What, if anything, can the pipedream of one person/one pc provide of benefit? As the first generation computer literati have we anything to offer? What renders an app convivial? To explore this interface between community rejuvenation initiatives and small scale software, the unMon has dedicated one wing of its current operations to the mad scientists of MAZI tasked with providing the best technology can offer to the intricacies of often-improvised, transcultural service providers.

Mazi, the unMon fieldwork wing, is charged with developing useful applications - our criteria are stringent. If it doesn't improve the conviviality of our work processes, it is too easily a hinderance that sucks more energy than it liberates. We suspect that the social entrepreneur hub of scooped shoulders bending over a battery of computer screens is not believable as the unit of strategic survival unless it periodically erupts in glorious atonal harmonic song. Our TestLab engineers assure us that they have small scale solutions to any thinkable need -- as yet we recognise this more as constructive rhetoric than a proven fact.

The true documentation of a project is not the impressive written report but how it is implanted in the participants and enters the lore of the community.

Has Technology a Future?

If we are Luddites, opposed to technological innovation, it is subconsciously so. We purport to be adherents of the wonders of digital mobilisation, and routinely pepper one another with the latest coordination platform. However, we feel compelled to resist this push as a scientific stance -- each ingenious application must prove its worth. As with all our invention they are subject to the rigorous trials of an unMon Test Lab...

Can an off-line network replace the taverna? Citizen initiatives and survival strategies have a logic -- the Mazi exploration is about liberation. If its contribution can facilitate speed upon which vital details can be organised and made widely available, this is all well and good. The moment the software itself absorbs attention, it fails. None of us need more time being 'social' with our mobile phones.

If this provides merely another labour saving function that out-sources human contact, it is not convivial. Checking in at a hotel using retina recognition provides fewer anecdotes to take home than your encounter with the surly desk clerk.

An unLuddite Disruption

The unMonastery does not do technology for the sake of technology. Firm believers in the fast approaching era of unCivilisation, the unMonks educated themselves only to remain informed cynics. The Internet Of Things, with its sensors, data collection, and networked solutions seemed a ridiculous cheap trick to their chosen path of monastic way of life.

"We believe that the dislocation of ethics and politics from the sphere of action to that of form of life represents the most demanding legacy of monasticism, which modernity has failed to recognize. What is at stake is life and the way of living - not the rule, but the life, not the ability to profess this or that article of faith, but the ability to live in a certain way, to practice joyfully and openly a certain form of life." (The unMonastery Minor Manifesto)

Actionism was not their approach. Acknowledging that often doing nothing is best, the unMonastery insisted on holding up a form of life in which ethics and politics acted as different grades of gravity that held their universe together, rather than a dynamic single-directional force. Their challenge was, as they knew from the beginning, whether they could establish a core material that acted as the source of this gravitational pull. The unMonks placed their hope in culture.

Enter MAZI

The plan was simple. A widely known but never mainstream piece of diy technology was going to be offered as an alternative to the ubiquitous internet. Money was going to be spent on developing applications and on-line scenarios that would lure people off-line. Given that the target technology pre-dated the MAZI group, the idea was to always develop localised applications- The MAZI toolkit would perforce become a Guide to a culture of doing much with less.

From the beginning the unMonks saw that Instead of jumping on the techno pilot band wagon, they were going to have to write The Book. A self-justifying circular design process in which a handful of specifically selected groups seek conveniently appropriate problems for its *technologie du jour* to solve, and then report back whether they had indeed solved them, was a risable feedback loop. While reports arriving back at Brussels tended to confirm the usability of what was being tested, the process was in desperate need of roots.

Hyper Informage

One chronic point of collapse among our communities is the fallacy of e-mail. I may have taken great pains to form an intricate rhetorical construct that delicately proposes a nuanced approach to a pressing dilemma. You, the reader, faced with your over-stuffed mailbox and your growing heap of 5000+ unopened e-mails operate in a

constant minus. You may delight in recognising my name, and may pluck out my letter from among the mercantile reminders for an eager rapid perusal between metro stops, but it will rarely be absorbed with a consideration equal to that that goes into it.

Until the modern human sheds themselves of the vestigial impulse to generate extended thought constructions that stretch over many paragraphs and often skirt the pleasures of ambiguity, one suspects that much of our writing will harbour in this limbo. As e-mail exchanges fly, our writing can easily become an exercise in self-satisfaction. The preponderance of information creates a paucity of attention. Communication that fails to enter into a dialog can scarcely be considered communication. When we add in the linguistic imperialism factor of intercultural communities, the problem compacts. Designing convivial antidotes has become a priority.

Appendix IV

Reflections on the interactions within MAZI cross-fertilization events

Please reflect on the interactions in past mazi cross-fertilization events and identify important moments and lessons learned regarding a) understanding of partners, b) your role in the project, c) research-action relationship, d) design of own pilot, and e) MAZI toolkit in general.

Answer A.

Your understanding of other partners

Aspects of these meetings gave an insight into the context in which some of the partners were operating, and getting to know some of the individuals.

The meeting in Volos was the first meeting of the consortium and so it was an important event to meet the other partners. Many of the partners did not know each other and there was a lot of information to take in at the event. The limited time and busy agenda, with a lot of management issues to discuss, made it difficult to get to know everyone. It was useful to see the labs at the Volos campus. At this event the focus for the toolkit seemed mostly technical, with the use of environmental technology such as sensors and data gathering.

The Sarantaporo visit gave a sense of the community's concerns regarding the future of the village but it also revealed some of the technical and social challenges associated with the deployment of the technological response. The issues here seemed related to the MAZI project, but also rather different.

The Deptford visit again gave a sense of context to the Creeknet pilot, including the people and organisations involved, their motivations and goals, the culture and style of working. There seemed to be a wide range of types of organisations, for example, stable, long-term organisations with premises and funding to carry out specific work. This includes work on citizen science and education, measuring and understanding the impacts on the environment due to fast paced change in urban environment. Other types of organisations are much more ad-hoc, based around individuals, and focusing on social and creative activities, and living within the specific environment of the Creek.

The event hosted at the Neighbourhood Academy in Berlin was an indication of the variety of stakeholders and the complexity of opinions associated with that pilot. There was some good opportunity for general and broad-based discussion, but as this was an open event, with many people involved, there was little opportunity for in-depth, small group discussion among the project partners about specific methods and approaches.

The Rome meeting was a project management meeting and, as such gave little further insight into the motivations of the project partners. There was not much time for active discussion about pilot study approaches, only a few informal chats.

If cross fertilisation events are to reveal the motivations and methods of partners in a way that positively impacts on the project then they need to be designed to enable all partners to contribute fully and learn from each other, as well as from "outsiders". There could be structured smaller sessions around a specific issue or topic that only involve project partners. This is key to creating a positive environment where people are comfortable about sharing ideas about how to handle pilot study research activities.

Your role in the project

The unMonastery pilot does not begin until month 15, so the priority in the first year was to understand the expected structure and purpose of the pilot study activities in general in order to inform our own pilot study. This also includes understanding the relationship between the pilot study work and the development of the toolkit.

However, there has been less in-depth discussion between the pilot study groups than we expected. There could have been a greater level of detailed discussion of method and approach between pilot study partners in order to examine and understand these different approaches. This would have helped to inform the plans for our own study, in order to better align with all the other pilot studies.

The relationship between research and action

In our understanding, research is action. Action is a very broad term, and is a part of research activity. The purpose of a pilot study is to increase understanding and knowledge of a particular situation, in order to inform the development and design of technology in a more general sense. Therefore, pilot study activities should be structured to produce knowledge in a way that is valid and useful for this purpose. This requires planning and coordination with the other pilot studies so that the pilot studies are complementary to each other, and learning from each other. This coordination requires time and structured discussions focussing on method and approach.

As an example, the Berlin meeting might have been more useful to us if there had been an opportunity for a smaller meeting for the four pilot studies only afterwards, in order to reflect on and analyse the implications of the event, and discuss what we learned, and how it might influence our own pilot studies. This would help with cohesion and shared understanding across the four pilots.

The design of your own pilot

Attending the events has provided some background context and information about the activities of the other pilots. The concrete projects that the other pilots have created are interesting, and provide some inspiration around what is possible for the toolkit. However, as the time has been limited, and the focus was on technology possibilities, there was limited time to discuss details about how research has been carried out, and also the "high-level" aims, for example, contact, knowledge, information and discourse, and more importantly perhaps, how these relate to and connect with the forms of the final technology products, and scenarios for their use.

Ideas for the MAZI toolkit in general

As mentioned in the previous answer, seeing the tangible projects developed by other partners gives some sense of what is possible, and generates discussion around potential scenarios for use.

Answer B.

Your understanding of other partners

For me, the most powerful moments in cross-fertilization events were the "contact" of MAZI group with the local community.

In Sarantaporo the MAZI group was more clearly separated, especially at the last dinner workshop, where the locals were all together on the one side and the MAZI group on the other. In addition, there was a language barrier and limited time and it proved that it was humour that broke the ice.

Nevertheless, MAZI partners presented themselves mostly with their "official" image not very different compared to our self-introductions during the kick-off meeting a few days before.

In Deptford the most powerful moment of "contact" was during the low-tide walk, where the different groups (MAZI and locals) were separating and merging from time to time similarly to the tide. This common activity allowed for more intimate interactions of the group with outsiders and revealed more personal aspects of different people's character.

In Berlin, it proved a very nice idea to create parallel workshops with a mix of MAZI partners and local actors that allowed us to witness each other. We were still a "separate" entity but much better integrated into the overall

community of local actors also because those local actors were like-minded and sharing a lot of our common objectives.

In Bucharest's INURA conference there was also a strong "alignment" of objectives with the non-MAZI group, which made it easy to "blend" even more. The fact that MAZI appeared as an actor that already had contributed in a generous way by supporting the participation of activists it helped significantly in the "acceptance" of the group. It was rewarding to see for example Marco Clausen being offered a "precious" plenary slot to discuss the relationship between researchers and activists, a traditional topic for INURA. The participation of people in the MAZI workshop and the long discussion that followed demonstrated genuine interest in our project that was very encouraging.

Looking MAZI partners through the eyes of all those different communities helped to transform the MAZI group as a community itself and help us to understand better each other

Your role in the project

Not through a "big" moment but through various "small" ones I realized that my previous investment in this project makes me sensitive and my continuous "presence" and strong opinions about everything related to MAZI somehow disempowering.

This led me to realize that I need to retreat for some time and allow the group to develop its own identity beyond the initial vision for this project as this was described in the DoW.

The relationship between research and action

For me, an alarming moment was when Elizabeth from Common Grounds apologized on behalf of MAZI for asking people to sign consent forms before the parallel workshops start. It was like research meeting action with "requests" and more "taking" than "giving".

On the other hand, there were moments that I saw activism more like a "privilege" rather than a "sacrifice". Coming from academia I was always feeling some sort of "guilt" toward activists, receiving myself funds that they somehow might deserve more. However, through interactions with activists inside and outside MAZI I realize that activists enjoy a freedom that is very precious and which most of them do not easily negotiate.

The design of your own pilot

The Berlin workshop and especially the "consent form incident" helped me reflect on the challenge to appear in front of a network of activists as a EU project that wishes to somehow contribute toward their objectives.

My resolution was that engagement from our side should come first and should be directed to issues that we have a genuine interest to work on. And the project's available "solutions" should follow as means to address problems that have become already "ours" being part of the community of activists ourselves.

Ideas for the MAZI toolkit in general

The biggest lesson from the first cross-fertilization events is that the role of the MAZI toolkit is far from obvious to people, even those that share the same values and objectives, like the independence of big corporations, open source culture, etc.

However, people get interested when they experience a MAZI Zone with some guidance, which is a sign that we should present the MAZI toolkit firstly as an educational device in small groups, reaching to individuals that could then become themselves "ambassadors".

We don't bring a solution to local communities. We bring the knowledge of tools that could be transformed to solutions if better understood by a few key local actors.

Answer C.

Your understanding of other partners

do not exactly understand the question

Your role in the project

To find my role was not always easy. On the one hand because we were constantly developing the design of the pilot. On the other hand we were working with nethood very closely together. Working together closely meant to find and define everybody's role in the pilot, especially for the mazi zone, as nethood is much more involved in the whole of the mazi project. Even though inspiring, it took a while until we sorted out more defined roles and now can start working in a very good process in developing the pilot in a fruitful way.

The relationship between research and action

As a social scientist and member of the Kraftwerk1 cooperative research and action come together by definition. But, it also needs to separate them by stepping back in times to the one or the other of them.

The design of your own pilot

Officially the pilot started in January 2017. In the meetings it was important to illustrate and explain the pilot KraftWerk1 and nena1, its organisation, structure and social worlds repeatedly as this kind of housing and living project it is to most partners an unknown sphere. Thus, the feedbacks showed each time a better understanding. Additionally, we prepared a good ground for the even more complicated part of the pilot, the knowledge transfer from Zurich to Athens and its parts of mutual learning from the two situations. In the first year, the design of the project needed more reflection on how to approach the people in Kraftwerk1 with mazi toolkit. So, in parallel in the mazi meetings we were each time clearer about the design of our process implementing the mazi toolkit in Kraftwerk1.

Ideas for the MAZI toolkit in general

MAZI toolkit should not only be a technological toolkit but also one that defines the rules and roles in processes where the technology comes into action

Answer D.

Your understanding of other partners

The cross-fertilisation events are important points of contact with other partners, to exchange ideas, and better understand each others' approaches. Time spent with other partners is highly valuable. Time spent at the different partners' pilot locations is valuable as it helps understand how the hosting partner 'teams' work in their field study context: the social, political and environmental dynamics that come into play and will affect how the research is undertaken.

The planned programme at each cross-fertilisation event can be used as a mechanism to encourage specific interactions and continue to develop cross-partner conversations, and a participatory approach to developing the agenda and opportunities for informal interactions are also valuable. In Berlin we were put into groups for the first session and this encouraged conversation with individuals and organisation representatives who we might otherwise not sought out at engaged with, so had definite value. Space for informal conversations during the event was also valuable: this was something was present across all cross fertilisation events. There is a tension between running an event over a longer period allowing conversations and interactions to emerge, against managing a schedule to achieve planned actions: this was a challenge NH had to manage in Sarantoporo. Each of the events have been of quite different lengths (from an afternoon to a week in duration) and bring different qualities.

Due to circumstances the OU wasn't able to make the Bucharest-Sibieli meeting (with CreekNet represented by SPC) and regardless of the formal agenda this was a negative outcome for us: however it emphasised the value of

the attending partners documenting the event so we could understand the key goals, the extent to which planned outcomes were achieved, and unexpected outcomes of note.

Your role in the project

With respect to the cross-fertilisation events, it might be asked “what was our role in each specific event?”, and its interplay with our role in the project. Partners might project their perceived role in the project to their role in each specific cross-fertilisation event, mediated by guidance provided by the framing of the event (e.g. the specific purpose of the event, the declared goals, the activities undertaken that each partner can feel they can contribute to or are asked to support). In the lack of explicit guidance then partners might assume a role as they felt appropriate, or play a more listening role, again dependent on cultural norms.

For example, in Berlin, there was debate about what data would be gathered, and the OU as Task leaders for pilot evaluation suggested that if data was to be collected that would be analysed and promoted, consent should be gained from participants. We wanted to show solidarity with the hosting organisations by offering some active input, and we drew on our disciplinary background. Some confusion occurred about the extent to which consent was required, by whom, and how it should be attained, and it revealed the importance of the provision of time to enable a participatory approach to the resolution of interdisciplinary issues and shared actions.

As project partners on CreekNet, Berlin was of great interest to understand the local context of another pilot – both in terms of local conditions and also to see how an already-running pilot was operating, so in this sense we felt our role was to participate and also observe, and ask questions (as we were likely to encounter challenges already reached in Berlin).

For the informal Deptford meeting, we felt our role as the research partner was secondary to the lead taken by SPC in introducing the local context so saw our role more as facilitators than leaders: Deptford is SPC’s neighbourhood.

Volos-Sarantaporo happened at the project kick-off meeting, so for the OU there was an emphasis on getting to know the other project partners, and a sense of the shared direction of the project. Sarantaporo acted as a boundary object between partners as an example of a DIY network project that was not a pilot so would not be an immediate participant in our work: so from the OU’s perspective it was interesting to understand how each of the partners reflected upon this case and how it might frame our project work, and to enable the OU representative (Mark Gaved, who had done DIY network research and practice most actively 10 years before) an opportunity to understand current challenges and perspectives and reflect on how the OU might engage in MAZI.

The OU did not attend Bucharest due to circumstances but this allowed us to observe a cross-fertilisation event at a distance, and see how interactions might occur from a more passive, listening role. As leaders of the Evaluation deliverables, it was useful to observe how the event was evaluated.

The relationship between research and action

The cross-fertilisations events offer a critical juncture between research and action. These allow the project to explore a specific aspect of the research in each case, to bring together researchers and practitioners to reflect upon research and also practice, and through the gathering carry out action/activities that move forward both research and future actions.

Ensuring each cross-fertilisation event has a clear purpose allows us to plan for potential future actions/ research directions based on the findings (intended goals and unintended outcomes) that come from each event. Given the multidisciplinary nature of the events it is highly likely that unexpected outcomes will occur and these are no less valid than planned outcomes but this emphasises the need to capture what has happened in an appropriate manner.

Cross fertilisation events that engage individuals beyond the MAZI team enable the researchers to gather more perspectives on the core research problems and to engage in shared activities that through action enable reflection on future research and pilot actions.

The design of your own pilot

The cross fertilisation events have used a variety of methods, some of which we have not used before and seeing these in action have been valuable, to extend our palette of potential tools or approaches we might use. To an extent we recognise each cross fertilisation event and pilot reflects local contexts but there are lessons to be learned from each of them.

Viewing other pilot contexts and pilot teams in action and understanding their methods have provided insight into how other partner are operating and this helps us reflect on how we might improve our pilot design and implementation, and feed back into the other pilots. Berlin showed us the value of engaging a range of local actors, and effectively utilising spaces for gatherings.

The range of approaches to cross fertilisation events (Berlin, London, Volos, Bucharest) has caused us to consider carefully what would be an appropriate scale of cross fertilisation event for London (number of people, duration, types of activities) and to reflect on the goals and desired outcomes.

Ideas for the MAZI toolkit in general

The cross fertilisation events have flagged up **the need for a clear argument for the case to use MAZI tools for a broad audience**: we are not engaging with an audience that is solely comprised of highly technical people who will engage with technology for the love of it alone (ludic purposes), we must assume their primary interest is resolving their local challenge(s) and engagement with technology is secondary. As one artist in Deptford recently asked (to summarise their intention as I understood it, not a quote) “but why? I have enough challenges and calls on my time as it is, why should I take on something more?”.

We should ensure **clear documentation for less-technical audiences**: again, we have interest from activists who are open to new ways of working, but are not necessarily technical experts and are constrained in the time they can commit to an additional task.

The range of contexts and communities shows **the need to enable customisation and playful engagement**: groups should be able to customise and quickly reconfigure different implementations of the toolkit to explore different possibilities without too great a commitment. James Stevens (SPC) though has made an interesting point: he has argued (as I understood) that there should be some work required in order to show a commitment: if people have no sense of commitment then maybe there is no real need to use the tool and we might be seeking engagement from people who are not going to offer a commitment in return. An interesting dilemma to consider.

There is a wide range of people interested in MAZI **and we should ensure we keep their enthusiasm by helping them become part of a community**: mailing lists, forum spaces, other tools to keep them posted of progress and give them opportunities to contribute or keep aware of progress.

Answer E.

Your understanding of other partners

Volos/Sarantaporo: Naturally, the understanding of the other partners at this earliest moment in the project’s runtime was very limited, as everybody proclaimed only an initial proposition of the role they could offer to the team. Consequently, I remember the interactions as sense-making within an anticipated, interdisciplinary collaboration. I did however gain a decisive sense of solidarity and disciplinary openness, both towards the disciplinary diversity of the research actors, the dichotomy between researchers and activists/artists as well as between seasoned EU-researchers and novices.

Berlin: By organizing and hosting the meeting on the day prior to the big public event, the Berlin team did not have the chance to fully engage in the exchanges happening between partners. Nevertheless, I recall that discussions around work packages entailed negotiations about roles and role-specific approaches.

Bucharest/Sibiel: The event in Bucharest provided many interactions that helped to understand the differences and parallels between partners in regards to the political context of the project.

Rome: The roles of the partners became much clearer by presentations of work done within the last 12 months. Competencies and other values brought by the different partners are better understood.

Your role in the project

Volos/Sarantaporo: The role was perceived as challenging, as partnerships both with the researchers and their institutions in the consortium as well as the community was tentative and fragile.

Berlin: Our own role in the project at this point in time was still rather unclear and was mainly perceived as being the mediator between the consortium/EU-dimension and the local scene of community actors. Since both environments were still rather new, the role was perceived as 'swimming' a little bit

Bucharest/Sibiel: Conversations in Bucharest mainly touched upon the synergies, differences and contradictions between us as „design experts“ as well as institutional protagonists and the environment of activism.

Rome: Adoption of the Letterbox, the guestbook app and the interview tool strengthens design aspects in our role within the project.

The relationship between research and action

Volos/Sarantaporo: I perceived these initial interactions as an interestingly unclear. I think participants were on the one hand carefully proposing their identity/staking claim, on the other hand being open to the other „world“, with its differences in values, currencies, processes and vocabularies.

Berlin: For the Berlin team, this was the first instance of togetherness in terms of a public appearance and shared identity. This identity was intensely discussed beforehand, which was not an easy, but very healthy and enabling process. I also recall the so-called „Informed Consent“ incident as an important reference point in the projects processes of negotiating the relationships between research and action.

Finally, this event was an important milestone for making ourselves and the project visible – and vulnerable towards the wider network of activists in Berlin. Taking a careful approach towards building trust in this sensitive environment pays off now, as different initiatives and movements are eager to collaborate.

Bucharest/Sibiel: On the one hand, I perceived skepticism, distance and the necessity for building trust between protagonists of research and action. Many separate what is not separable and distinct one and another where there are many in-betweens. On the other hand, many were interested in learning about approaches not yet considered in their particular field and to introduce topics into discourses that ignored certain aspects before (e.g. the role of tech in critical urban practice and theory). I learned that we need to work harder on creating synergies and clarify parallels. Community had to position themselves, which I understood as a rather cathartic moment.

Rome: In Rome I had, for the first time in the project, the feeling that the dichotomy research/action is, at least on a personal/personell level, obsolete – that we work as a diverse team that negotiates frameworks on the go, instead of sticking to one particular set of rules.

The design of your own pilot

Volos/Sarantaporo: At this point, our interactions in regards to the Berlin pilot design were focussed on how to engage the wider environment of NAK. We were in the process of planning a very careful approach that initially would put the technological dimension into the background. I remember advocating/defending this approach against the more technology-push approaches present in this diverse consortium, which sparked very interesting discussions.

Berlin: After a longer time of community outreach and concepts discussions, the weeks before the event in Berlin showed rapid development in the concretization of our pilot/what our pilot study is about. In retrospect, the design

of the interview tool was elemental in gaining a mutual understanding between CG and UdK. The interview tool of course is not the big shot in terms of the actual thing, but it since then functions as a boundary object that helps facilitate the different perspectives/worlds that clash and make for synergies in this pilot study.

Bucharest/Sibiel: Talks with actors from different geographical and programmatic places provided the opportunity to reflect on the pilot's objectives and process. For example, activists from Ministry of Space in Belgrade were conducting interviews for a platform they are creating, which provided perfect sparring partner for discussing approaches, goals and experiences.

Rome: It was important to a) consolidate the processes that happened in the pilot for the presentations in Rome (both to the consortium as well as to the CAPS community)

Ideas for MAZI toolkit in general

Volos/Sarantaporo: Initial conversations about the toolkit made it seem a bracket that needed to be filled with ideas. In retrospect, the vague idea of the toolkit already functioned as a boundary object between partners trying to make sense of it and to develop a mutual approach to filling it with life.

Berlin: I remember the consortium meeting as an intense discussion of different takes on the concept of a toolkit. It was the first time concrete propositions have been presented, and the very different viewpoints and opinions were brought to daylight. Being at this point 6 months into the project, these controversies were of high value and importance for the weeks and months afterwards, and steered the discussions of the toolkit in a better directions, although there are still many points to be discussed

Bucharest/Sibiel: Interactions in this context underlined the importance to think the toolkit as an open and, most importantly, accessible concept, as interests and expertise varied widely. Discussions in the MAZI sessions gave way to ideas in how to conceptualize MAZI and the toolkit in relation to more high-level, political topics.

Rome: and b) to put it in relation with the presentations on the progress of the other MAZI pilots, in order to discuss synergies and possibilities to transfer lessons learned to WP1. Overall, presentations by UTH made the toolkit much more graspable – it now seems that we can start experimenting with deploying the „toolkit“ to other initiatives and actors and to start learning from these experiences.