

Pools and Satellites – Intimacy in the City

This paper addresses the issue of mediating intimacy in order to support city communities. What is intimacy and how can it be mediated through the introduction of new technology in a community? It illustrates the discussion by describing two explorative information and communication technology concepts and scenarios.

KEYWORDS:

community, interaction design, intimacy, city

INTRODUCTION

Every day new ICT (information and communication technology) appliances find their way into our work, public, domestic and personal spaces [9,19]. While such new technologies may allow us to move beyond physical limitations such as time and distance, the interfaces and physical manifestations of these appliances are becoming increasingly important. Where these various elements meet, interesting new patterns of interactions can evolve, not only between people and their devices, but between people as well.

Designing new interactive technologies for communities was the core theme of the i³ Summer School 2001, which took place at the Interactive Institute in Ivrea, Italy [13]. The “Intimate City” Atelier concentrated around designs for urban communities – taking the city of Ivrea as a case study. Communities have needs which go well beyond the functional. This atelier was inspired by two related threads: intimate media and social navigation. Intimate Media [21] are objects for communicating our identities and keeping memories; social navigation is the process of using other people to find out what is going on and where to go. We used these two elements to try to look at ways to manipulate and

influence new ways of interacting with our urban environment.

This leads us to the core question of our project:

How can we support intimacy within an urban environment/community by means of introducing new kinds of interactive systems?

In response to this question, we describe in this paper two ‘intimate’ devices, designed for community use within an urban context.

The initial concepts were developed in September 2001 during the i³ Summer School. After examining what intimacy stands for and what its potential importance in interaction design could be, we focus on how it might be supported in urban environments. To illustrate this, we present two scenarios that explain the setting and use of our two ‘intimate’ devices within an urban community context and discuss the concepts with regard to several evaluation criteria. Finally, we describe ways in which this work may be developed further.

BACKGROUND

Intimacy

Intimacy relies on communication and a sense of closeness. Such feelings of closeness are seen as inherent in cognitive, affective and physical aspects of intimacy.

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They may be expressed through face-to-face conversation, non-verbal communication (by means of gestures), close physical proximity or touch.

Intimate relationships may include feelings of [4]:

- commitment (feeling of cohesion and connection)
- affective intimacy (a deep sense of caring, compassion, and positive regard and the opportunities to express the same)
- cognitive intimacy (thinking about and awareness of another, sharing values and goals)
- physical intimacy (sharing physical encounters ranging from proximity to sexuality)
- mutuality (a process of exchange or interdependence)

Intimacy, Community and Technology

Although a difficult concept to capture in words, many of the characteristics of intimacy, in terms of human relationships, can extend to other contexts as well. For example, there are simple objects in our everyday lives that invoke intimacy because they remind us of, support us in, promote or mediate intimate relationships. A personal diary, for example, can be viewed as intimate when used to record intimate aspects of a person's life. But it only becomes 'intimate' *when it is used*.

Intimacy is a quality endowed through use, either by the context of use, or by the manner of use. A softly lit restaurant may be perceived as intimate in that it may be *conducive* to intimacy. In contrast, a crowded city space may not be seen as intimate in that it does not promote private interaction, although close examination may reveal myriad intimate interactions. The holding of hands, eye contact and the close proximity of people as they walk and talk may expose an intimacy, which is largely inaccessible to us.

'To live in a city is to live in a community of people who are strangers to each other. You have to act on hints and fancies, for they are all that the mobile and cellular nature of life will allow you. You expose yourself in, and are exposed to by others, fragments,

isolated signals, bare disconnected gestures, jungle cries and whispers that resist all your attempts to unravel their meaning, their consistency.'

[18, p.15]

We have a need to break through this mass of disconnected signals, to create order, to form relationships and reach a sense of closeness. Intimacy may be invested in objects and places and this intimacy may be conveyed to others through context or manner of use. This provides a range of possibilities for how physical interventions may be used to invoke or convey intimacy within the space of an urban community.

A starting point for making use of information and communication technologies in this context is the communication element. After all, communication technology has been the key way in which computerisation has changed many of the ways in which we relate to one another. Although it is often blamed for increasing distance between people by eliminating face to face communication, this is not the whole truth. Many communication technologies provide people with alternatives, that may even increase communication and support face-to-face communication. Increasing and augmenting the possibilities for communication could work within an urban community as well – as communication is an indispensable aspect of community life and a prerequisite for intimacy.

In fact, communities can be characterised by people that share at least three things: a set of *common interests*, *frequent interaction* and *identification* [20]. This is valid for all kinds of communities whether they are traditional geographically based, or new kinds of virtual or on-line communities. In terms of interaction, communication technology certainly has the potential to support communities by providing new ways for interaction to take place. Besides allowing communication to take place *through* the media, its physical presence can – if well designed – also attract community communication *around* it.

As will become clear later, these observations and insights will prove valuable in our designs.

Community and social needs

The city as an environment often requires people to navigate both physically through

the spaces of the city, as well as *socially*. We use other people as a resource in a number of different ways: indirectly, following trails of footprints, well-worn paths, seeing a graffiti on a wall, following where the crowds go. Or we may navigate more directly, asking people what's going on, receiving directions, etc. We are constantly using other people, their behaviour, the artefacts and the markings they leave behind as resources to make sense of the city and enjoy it [16].

...this awareness of others and their actions make us feel that the space is alive and might make it more inviting. Here we are not really interested in whether users navigate more efficiently, or find exactly what they need more quickly; instead, we want to make them stay longer in the space, feeling more relaxed, and perhaps be inspired to try out new functionality or pick up new products and new information items or to try out new services that they would not have considered otherwise. [6]

The social navigation approach can help in our conception of how to design intimate technologies for the city. It makes us aware of the feeling of closeness, of intimacy that people's traces can convey. These can be regarded as traces of community life that people can use to feel part of it, to feel in touch with their fellow community members. In sharing a common city, people interact with each other directly and indirectly to get around. By using technology to increase awareness of others and create enhanced and new methods of apprehending people and their traces, we might find ways to support intimacy in the city.

Community and technology

The feeling of sharing a common identity makes people feel safe, supported and supportive. Traditionally, this takes place in the physical and social environment of the local milieu. However, today's electronic media and information technologies have the propensity to remove human activities from the physical world. Replacing the city, traditionally the cultural kernel of a society, with a virtual world, renders location and therefore identification with a city irrelevant. Already on the Internet, new 'virtual' communities are cropping up, and as new kinds of communities form, others may fall

apart. The 'digital age' is moving away from the communal life of the city to the enclosed, but networked, life of home, work and technology.

What is interesting, for the purposes of this work, is that available technologies may be used in new, innovative ways for different, originally unintended purposes. The physical manifestation of many technological appliances in recent times has generally been as a desktop or laptop device, and the most revolutionary use seems to have been to enable people to coordinate their work at a distance, across space and time zones. However, this is changing now. Technological advance has made it possible for many devices to 'disappear' into the background, into different elements of our environment [12]. Such calm technology may look like a bench, a normal wall, a normal building, or even grass. This poses new challenges for designing meaningful interfaces which enable us to interact with such technology. In our aim to enhance community life and increase intimacy with and within an urban community environment, such developments provide opportunities for new solutions to make that difference.

Some exemplary projects have succeeded in applying technology in such a community-oriented way rather successfully. The Presence project, for example, involved local elders in an Amsterdam suburb to design experimental objects to strengthen their feelings of safety and involvement in the restless environment [8]. One of the designs was the slogan bench – a simple

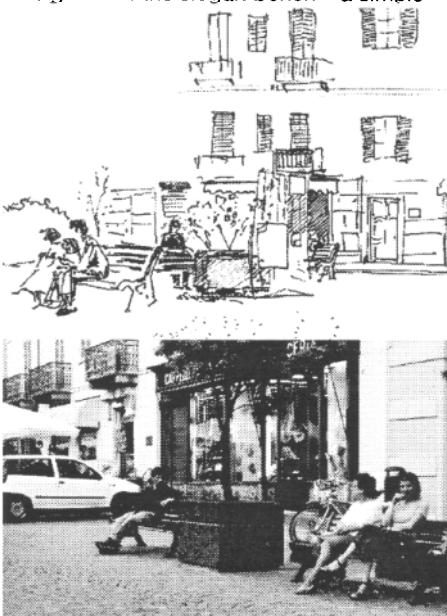


Figure 1: The lively main piazza in Ivrea.

wooden bench with a window in the back rest. Slogans such as "Methadone is OK but not in front of children" created and written by the elders themselves, would rotate inside the window, using old bus sign technology. Social gatherings and discussions sprouted up around the new pieces, which became a manifestation of local culture and identity.

The Presence prototypes are interesting examples of what may become 'intimate technology' for the city. Maybe we do not need to mediate over distance, in fact, maybe what is needed is a very local mediation to allow us to leave our footprints, our mark on the environment for others, to create and display some traces of our lives for others to interact with.

MEDIATED INTIMACY

We may sometimes be aware of the intimacy of others but can we detect it amongst Raban's [4] disembodied cries and whispers? The fragmentation of modern people's lives is increasingly apparent. People often live and work at a distance from friends and family and rely on communication technology to support their relationships with others [21]. The challenge remains to find appropriate ways to mediate intimacy in communications and to bring it to the community, trusting the drive of social needs to assist in introducing the new technologies and allowing them to find their place in the community.

New technologies could, and should, find more expressive and experiential ways to allow people to interact with each other. We believe that intimacy can be supported by using technology to make instances of mediated communication both visible and open for a community to participate in. Feelings of empathy, mutuality, of caring and compassion, of respect for one another, of commitment and fulfilling other peoples needs, may all be invoked. Perhaps this way we can draw people back to places of common experience, the major source of community narrative, the heart of the community culture.

DESIGN

The aim of our atelier was to design interactive concepts to enhance intimacy in the city community. The process included a heavy emphasis on drawing inspiration from observations within the city of Ivrea

and its surroundings and considering a wide array of possible concepts. This resulted in the eventual selection and presentation of two of our ideas that embodied best the criteria that had been decided on during the design process which are presented below.

Observations

'What will be the twenty-first century equivalents of the gathering at the well, the water cooler, the Greek agora, the Roman Forum, the village green, the town square, Main Street, the mall ?' [15]

The Ivrea city centre, like many Italian cities, has many squares. While some of them were very lively, others appeared rather dead and empty. This difference made us wonder about the reasons why people flocked together in a particular square.

How and what kind of attractor could we introduce to one of the dead squares in order to liven it up as well and mediate intimacy somehow?

For several days we observed the main square, which had the highest degree of activity. We saw how people draw together people and how artefacts in the square facilitated this also. Benches among large potted plants provided a place for the elders to sit together and chat, to watch people walk by or to rock the baby carriages of their new-born grandchildren, for couples of all ages to sit together and flirt. At least three generations of people harmoniously shared a common place.

Being situated at the crossing of several streets, people walked across the square in many directions, avoiding and walking around the benches and plants which divided the square into smaller areas for paths. Besides this, the main square was also framed by several 'functional' buildings: the town hall on one side, a bank on another, several small cafes with terraces on the other sides. All of these influences together make it virtually impossible for community members not to interact with each other. The square, in that sense, was a facilitator for occasional social interaction and potential intimacy.

Further down the shopping street was another square, not nearly as lively as the

one described above. Parts of it were being renovated and covered in scaffolding. Although in itself a beautiful square, framed on three sides by an impressive galleria, a



Figure 2: The large empty piazza.



Figure 3: The death announcement.

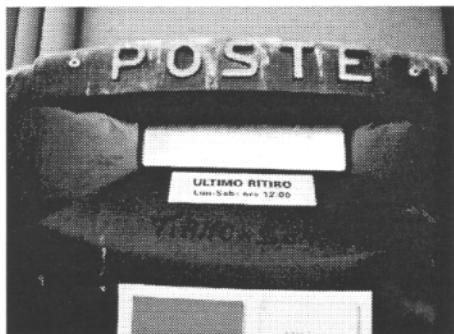


Figure 4: The love message.

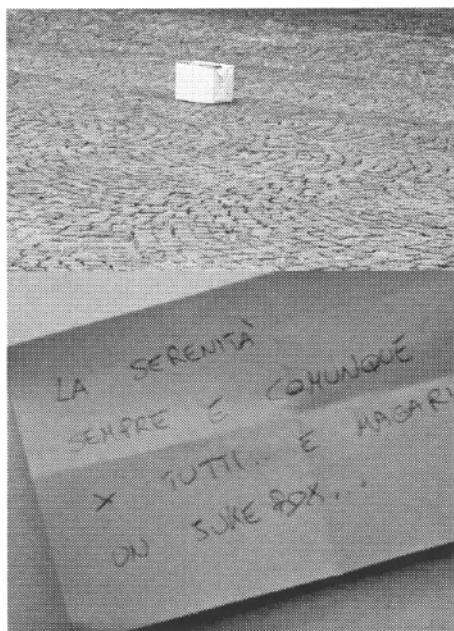


Figure 5: The box and one message: "Peace forever and for everyone ... and maybe a jukebox..."

theatre, a library, and some cafes and shops on the side of the shopping street, it lacked the inviting atmosphere. What kind of artefacts could we introduce to breathe life into this piazza?

We also observed the pervasive presence of references to everyday aspects of life on many walls in the city. For example, when fellow community members have passed away, it is announced by posting black and white notices on designated walls, very similar to obituaries in newspapers. The most emotionally evocative of these was the notice for a young woman, printed especially in colour with a red rose and a photograph of her smiling at the camera.

On a happier note, a private house proudly advertised the birth of a baby boy by affixing a little wreath of flowers next to the door with a short message announcing the birth of "Andrea" on the pale blue ribbon. The most memorable of many intimate messages throughout the city was perhaps that by the anonymous man, in love with a girl called Sonia. He had confessed his love by writing neatly "*Ti amo Sonia*" with black marker all over the city, including a mailbox. The presence, and acceptance of, references to all stages of life, could be felt strongly throughout the city.

Interventions

A first attempt to spur inspiration was to ask the people of Ivrrea themselves: "*What would you like to see on this square?*" This question we wrote on a box, strategically placed near the shopping street on the empty square. The few responses we received lead to a cascade effect of ideas.

One response in particular, i.e. that of a jukebox, brought forth the idea of using the square as an interface, using for example people's movements as input and sound, light and music as output, exploring the square as an interactive space. The importance of the square as a social nexus became evident as well as the possibility of augmenting the real, familiar, environment with a new level of connectivity. Physical and virtual environments differ in the way they afford and constrain [17] human activities. By designing environments in which these two worlds are linked tightly to each other, people might be able to make better use of the unique advantages that both

worlds offer, and this we wanted to apply to spaces such as the piazza.

In our final design concepts, we decided to focus on two of the social needs as our drivers, i.e. the inherent need of a community to communicate and the need to play. As a requirement for intimacy, both concepts have a communicative aspect – one places emphasis on personally meaningful and emotionally rich visual communication, the other proposes playfulness and exploration in interaction.

Selection Criteria

After several rounds of developing and discussing ideas, criteria for evaluating ideas for the final concepts emerged. The primary requirements the designs were supposed to reflect were

- *Intimacy* supporting intimate experiences or communication
- *Interactivity* providing means of interaction for people, not just pieces of art
- *Meaningfulness* providing the possibility to add personal content and be personally involved
- *Openness to participation* supporting the passive observers' experience as well

CONCEPT DESCRIPTIONS

The two final concepts we designed merge various ideas about intimacy within a community and it is in this light that we explore the aspects of communication and play or playfulness. Although both designs explore to a certain extent the concept of communication, in one of them it plays a more central role. Our first concept, the Pool of Memory allows people to transfer messages to a central location, the piazza square, within the city. Our second, more playful concept of the Satellites explores interactions that may bring people together through the use of technology. Both fit well into our search to put technology to use in order to counter further community alienation and distancing, an effect in many cases often strengthened by many ICT appliances.

The Pool of Memory

As a metaphor for our design we chose the age-old attractor, around which most community life originally developed – a

source of water. We took the circular motif of the village well and transformed it into a shallow pool, to be placed strategically at the center of the square. Neither the functional necessity of fresh drinking water nor its primal attraction have changed over time. Because people have always gathered and talked around such places, we hoped that the *Pool of Memory* would attract the people of Ivrea and stimulate their conversation.

The Pool of Memory is a visual community-messaging system that allows input from several, even remote, locations and output to a central place and the remote input locations. The visual messages are short

videoclips containing sound. In public places however, playing back sound is more problematic than displaying an image, and thus we consider the visual to be of greater overall importance than the sound. The short audiovisual messages are played in order of creation. To allow people to construct sequences of narrative, new messages can be connected to previous ones, creating chains of messages.

Recording a message takes place in front of a small panel mounted in a public place. For our 'problematic' piazza these could be the pillars of the galleries for this purpose. This could also positively alter the flow of

people on and around the piazza.

Instructions for use would be:

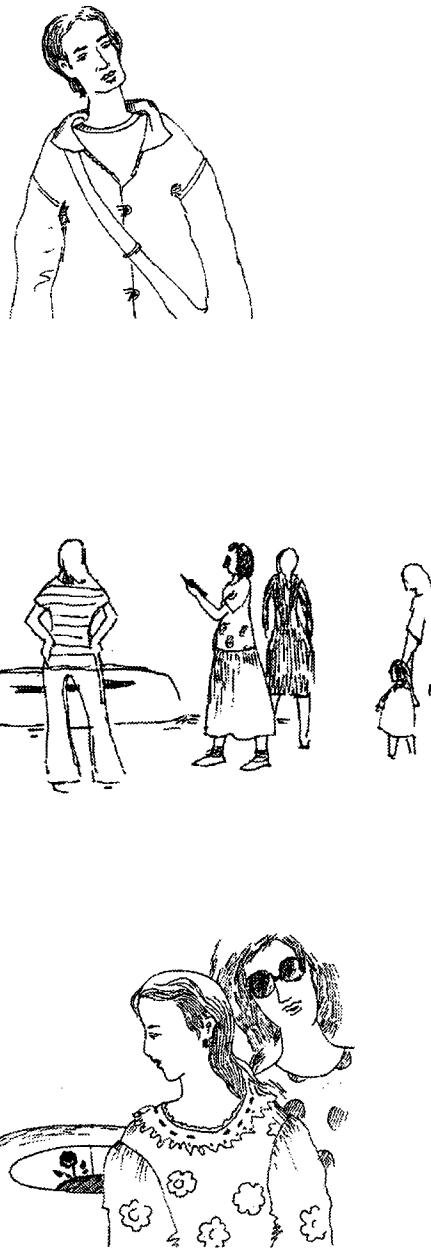
- Step up to the panel, and wait for the screen to sense your presence. It will automatically switch from playback to recording mode. To start recording a new message, press the record button.
- You may enter the reply mode and browse existing messages by scrolling the jog dial. To respond to a particular message push the record button during the message to start recording.
- To not respond to any of the messages wait for the screen to return to recording mode. Once you stop using the jog dial, the screen will return to recording mode.
- After recording, preview the message and accept it for sending, otherwise message will be deleted.

The recorded messages flow together at a central location, the Pool of Memory. It is a large circle of seat-height walls with a drinking water fountain in the middle. The videoclips circulate slowly on screens around the inner rim of the structure, casting their reflections onto the water surface.

As one can easily notice, the pool serves many functions to the community this way: it provides a place for people to sit and socialise, it has a drinking water fountain, and it allows personal messages to be viewed both from within close range as from a further distance while passing by.

The Satellites

The satellite is, in essence, a playful exploration of modes of communication. Its round, biomorph product shapes have been chosen to invite people to playfully interact with them. The device consists of two parts that communicate with each other from different locations. One end can see but cannot hear, the other end can hear but cannot see. Assymmetrically limiting communication modalities was a deliberate design choice in order to awaken curiosity and creative thinking, to stimulate discovering different, new ways to interact with other people. At the same time the concept can be seen as a silent reference to the distancing effect and narrowed communication of many ICT devices.



A Scenario for the Pool of Memory

It's Riccardo's lunch break. He is on his way back from a nice long lunch when he remembers that it's his and Sonia's three-month anniversary today... Not remembering would be nothing short of a crime! On the spur of the moment he steals a small rose from a restaurant's flower bed and spins with it to the recording panel on a nearby wall. Holding the rose in his hands, in front of the camera, he confesses: "Ti amo, Sonia"

Sonia and Maria have a lunch break together. Maria is 8 months pregnant and likes to shop for baby clothes in the city centre, close to home – she can't walk very far now. They are to meet at Sonia's workplace, and Maria crosses the square on her way.

She glances at the images in the pool and stops: surely that one looks very much like Riccardo, hiding behind a flower? How sweet! Sonia should see this for herself.. She calls Sonia and asks her to come over to the square instead – there is something she should see for herself.

Sonia giggles... that's so like Riccardo! Isn't he the best! Well... she really should reply somehow... maybe a flower for a flower? Maria and Sonia go to the side of the square to the nearest recording panel. They find Riccardo's rose message, and to record her reply, Sonia holds up a rose from her dress to the camera, with plans to say something mysterious and appreciative, but Maria is rolling her eyes and the funny expression causes Sonia to burst into happy laughter.

They may be expressed through face-to-

isolated signals, bare disconnected

the spaces of the city, as well as socially.



A Scenario for the Satellites

The satellite is on the ground in a busy square, camera pointed up at people, emitting sounds from a different part of the city. The ground control is on the other side of the city centre, displaying the live video and recording sounds.

Two sisters, and the best friend of the older sister are touring the shops for something nice for an upcoming party. They glance at the fish-eyed image, and then look again – hehey, what good-looking guys are right close by! They start joking to each other and laughing.

One of the guys hears sounds of female laughter and thinks he also heard the word "handsome" and looks around at a red ball on the ground, where the sounds seem to be coming from.

Hey, guys, this looks like some kind of camera, he says and squats down to take a closer look at the ball. He hears squeals of surprise and muffled laughter coming from the loudspeaker.

Oh no! he is looking at us! The girls laugh in surprise. They can't believe he actually heard them, how ever did that happen.

The guy holds the ball up looking in to the camera. He asks the camera: can you hear me? The girls see his mouth move and figure out what he might be asking. They tell him that they can only see him, not hear him.

The guy assures the girls he is heartbroken, not to be able to see the sources of such lovely voices. His mates laugh and also take a look at the camera. They want to know where the girls are.

The girls wink at each other and ask the guy to show them where they are. The guy obliges, sweeping a look at the local café and shops with the camera in the ball.

The girls take off, giggling, leaving the guys talking to the camera. Sure they know where that café is – who knows, they might go that way for ice creams later. That would be a laugh if the guys are still there.

The wireless satellite has a round friendly shape in a large 'huggable' size. It captures video and sends it to the ground control. The ground control is also round, but rests on legs and is immobile. It displays the video input from the satellite and records the sound input of the viewers, broadcasting it back to the satellite. The aim of this is to explore the concept of communication, how it is initiated, how the understanding of the asymmetry of modality is processed and what this might lead to. When effective communication cannot be the functionality, will the playfulness suggested by the object shape take over and influence people's behaviour?

The satellite concept also addresses the issue of openness. The main experience is that of using the system, but the way in which people have to interact with it will draw attention from passers-by and initiate their curiosity. It is a perfect example of giving people the opportunity to make use of social navigation. Also the concept allows the person to communicate without actually disclosing her/his identity or being the entertainer or clown. The social hedonistic needs are addressed in the fact that people can interact with each other, cooperate and perform tasks, but they can also turn it into a game (of hide and seek for example).

DISCUSSION

The Concepts

The Intimate City can serve as a good example for the new kinds of interaction situations that, by necessity, appear as information appliances become mobile, ubiquitous and personal. One user vs. one computer, the interaction situation formerly assumed to be default within the HCI community, should no longer be viewed as the default situation.

Although the concept of the satellite has many similarities with the traditional HCI setup of a person-to-person communication device, it also deliberately tries to involve more people than merely the direct users. It does so by disturbing the modal symmetry of communication. It is a communication device of low usability in the functional sense. It is quite unusable for efficient messaging between individuals. It will possibly evoke slight frustration or surprise as well as curiosity. It is also placed in a public space, on the ground, to

be seen by many potential participants. Its shape is suggestive of play (especially in a country obsessed by soccer). The asymmetry can be seen as a potential bridge over personal disabilities of mobility, of hearing and of sight, providing a platform for cooperation between individuals.

The Pool of Memory furthers the idea of "multi-user interaction". This is achieved by distributing the input devices across several locations in the city, as well as by placing the output device in a square where it is at the heart of the action. The concept allows active, meaningful interaction between those who create messages and those for whom the messages are intended – knowing that there is also another audience, the rest of the community. It also allows observers to be a part of the experience: seeing and hearing the messages, seeing people creating messages, possibly discussing the content with others. Without force, but relying on curiosity, the concept hopefully invites and provokes people to actively take part in this visual communication process.

The complex interaction pattern that the Pool of Memory affords serves as a good example of Emergent Interaction [2] where most participants share some parts of the interaction while other parts are more tuned to individual preferences. The use of visuals makes the channel also more emotionally rich, and the limitations of a short videoclip can become the strict form that allows the participants to be playful and inventive in creating content. The active participants can experience affective intimacy in sharing messages. The observing, passive participants can see these messages, experiencing cognitive intimacy by being aware of what others are sharing.

The Design Process

The design process of these concepts was unusual because of its duration, setting, aims and participants. It took place at a summer school, it was done by a group of nine people from different countries and different backgrounds during nine afternoons in the Italian town of Ivrea. The most interesting aspects of the process have been described previously: the intensive observations of the town and the interventions for design inspiration. Before arriving at the final concepts, many different avenues of ideas were explored, which

sparked a firmer, further understanding of what we wanted the intimacy in the community to be.

Intimacy and Interaction Design

The experience of the individual, while taking into account its place within the larger social context, should be central to good interaction design. How individuals interact with a device may be objectively evaluated according to ...

'...how well they understand how it works; the way it feels in their hands; how they feel about it while they are using it; how well it serves their purposes; the way it fits into the context in which they are using it; and how well it contributes to the quality of their lives. If these experiences are engaging and productive, then people value them.' [1]

Retrospectively seeing these constraints as incomplete, Alben [1] suggests the need for closer, empathic partnerships with the community, conducted beyond the design studio, in the context of community members' lives. What Alben suggests is missing is "intimacy". The concept of empathic design is not new, however. Several advocates of leading design consultancies call empathy the tool with which designers internalise the requirements of the users and can put their creativity to work for others [3, 5]. Empathy, an emotional understanding, is achieved precisely by leaving the design office and becoming – if briefly – immersed in the lives, environments, attitudes, experiences and dreams of the future users.

In order to achieve this, so called "cultural probes" have been used to penetrate the hidden nature of individuals' experience and have revealed rich data otherwise unavailable [7]. Gaver and colleagues' investigations were not carried out in order to objectively frame a design problem, but to form "a more impressionistic account of their beliefs and desires, their aesthetic preferences and cultural concerns" in order to design speculative futures. They stress the importance of intimacy in this relationship:

'The probes were our personal communication to the elders, and prompted the elders to communicate personally in return.' [7]

We believe that the attitude of the design process is reflected in the final concepts: if mutual exchange, respect, and sharing of values and experiences takes place in the process, it is possible to incorporate these into the design of concepts as well.

Evaluation

How can intimacy as a community experience then be evaluated? Merely measuring the frequency of communication does not suffice. And if objective criteria alone cannot be used to inform the design of intimate devices, we must also accept that objective criteria alone cannot be used to evaluate them. Evaluation of intimate devices must extend beyond Alben's objective assessment of individual experience, to examine the design process and the degree of intimacy it supports with and within the community.

Evaluation of an intimate device should focus on the characteristics which promote or support, intimate relationships, either between the artefact and the individual, or between members of the community. Factors such as closeness, self-disclosure, commitment and affective, cognitive and physical intimacy should be considered, although not all need be present [4]. However, the presence of reciprocity between individuals is necessary, as unsolicited self-disclosure can be perceived as intrusive.

Some factors relating to intimacy may be seen to relate to Alben's objective criteria. For example, how something feels or looks may evoke feelings of intimacy. Hofmeester, Kemp, and Blankendaal [10] investigated the issue of sensuality in interface design, a quality that may be conducive to intimacy. They used a range of semantic differentials (such as soft/hard warm/cold attractive/repulsive) to measure perceptions of personal communications devices. Similar metrics might be used to determine perceptions of intimacy in the evaluation of intimate devices.

The evaluation of how a concept works in a community needs to be evaluated by members of a community together. This means it is more resource-consuming than the traditional testing of person-product interaction and stresses the importance of qualitative experience-oriented, and contextual research in the early concept design stages.

These concepts could be prototyped and placed in a community for a time to see how they become adopted. This may require a long term co-operation commitment from the designers. It often happens that the results of a research project are prototyped and tested in a community, but then taken away, as in the projects Living Memory [11] and Presence [7, 8]. The final sign of success for a community concept is that it remains actively used and maintained even after the designers pack up and go home.

Conclusions

In our designs for the intimate city we have tried to combine the unique physical characteristics of the city environment with the communication and media possibilities that modern ICT can provide. The piazza, the streets and the city walls merely receive new furniture. By breathing new functionality and meaning of life into and around these spaces, we support interactions that can be not only intimate between individuals, but also supporting the community as a whole.

The call for interaction design is to learn from the different social needs that people have and incorporate them into the design: to provide interaction that is playful, respectful and intimate in reflection of its content. This kind of understanding would have wide applications ranging from personal services, designed environments, inclusive design and teleworking while most importantly promoting the understanding of people as social beings who need a community, and need to feel part of and take part in it, regardless of age, gender or other aspect.

'The form of social space is encounter, assembly, simultaneity ... Social space implies actual or potential assembly at a single point, or around that point' [14]

These new intimate ICT-products have the potential of becoming such points around which life proliferates. Among benches, potted rose bushes, drinking fountains and café tables we want these new products to become placeholders for community life.

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