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Aspects of social media design and innovation in a project for aging together

Andrea Botero and Kari-Hans Kommonen
University of Art and Design Helsinki (TAIK), Media Lab
andrea.botero@taik.fi, khk@taik.fi

Abstract. This paper documents a design research collaboration that intertwines with a collective project to develop and experiment alternative social arrangements for growing old. The paper presents some of the social media concepts developed in collaboration with the community and traces their role and challenges in sustaining the practices of the community of active seniors interested in growing old together.

1 Introduction

The expected number of active years after retirement (also referred to as the third age) is steadily increasing in the West. As a response to this demographic trend in the European Union alone there is today a large number of initiatives that aim to assist seniors' independent living and increase the efficiency of senior care with the help of new innovative technologies. These strands have paid attention to the cognitive and physical challenges associated with senior care, but seem to say very little about the general social arrangements under which these activities take place. At least in Finland, there has also been a crisis in the way municipal and state-led senior care arrangements and services are managed and organized (see e.g: Sonkin, Petäkoski-Hult, Rönkä, & Södergård 1999). There is a growing realization that along with the many physical challenges associated with growing old, there are challenges related to achieving a stable social life, maintaining a sense of belonging and avoiding isolation that need to be addressed urgently at all levels.

This situation invites to consider alternative arrangements for "growing old" and new practices to support them. Some of these concerns have been the central topic of the collaborative project initiated by a group of senior citizens introduced in this paper. In creating a project to redefine their future living conditions, the experiences of these active senior citizens could shed light on contemporary understandings of design. Particularly we are interested in the invitation of Suchman and her colleagues to consider design '*not as the creation of discrete, intrinsically meaningful objects, but the cultural production of new forms of practice*' (Suchman, Blomberg, Orr & Trigg. 1999). Building on this insight we explore how this project for devising new practices of growing old together has evolved and what types of social media were used. Even though we focus and trace instances of our collaboration with the seniors in envisioning and producing digital tools and social media concepts, those should be seen in the light of their role in supporting the development of this "life project" and the envisioned practices for aging together.

The paper is structured as follows; we first introduce the setting and development of their project, their collaborative practices and tactics, followed by an account of how our collective design interventions were woven in within their project. We then conclude with reflections and conclusions for further work.

2 Setting: Aging together and innovation

The idea of exploring a new way of growing old together discussed here was initiated by a group of retired women in Finland. Unsatisfied with the alternatives offered by Finnish society in terms of senior housing, they got organized in 2000 as the Active Seniors Association (www.aktiivisetseiorit.fi). Their purpose was to initiate a general discussion on the matter, and more importantly, engage in concrete and experimental actions around the theme. The community is making a concrete proposition for an alternative way of growing old that includes the individual as an active participant in the configuration of her life, through collective production of services. By building a coherent strategy and teaming up with different partners they also implement that proposition instead of waiting for a third party (government or service provider) to develop it.

2.1 Aging together, an alternative arrangement?

The project was concretized with the decision to design and construct a housing arrangement for seniors in Helsinki, that they named the Loppukiri house (in English: last spurt). The basic concept was formulated as a senior housing arrangement that will be based on three basic principles: **neighborliness**, **self-help** and community spirit guided by **open decision-making** process (Dalström & Minkkinen 2009). This collective project of organizing and designing a senior

housing solution is quite substantial. It includes not only actively participating in the planning and construction of a building¹ -during a six years period- but more importantly the continuous creation of a strong community with all the associated practices, rules and infrastructure that make this arrangement possible and sustainable.

Today Loppukiri consists of a community of approximately 70 people that live in 58 compact apartments. Like many other similar arrangements, in compensation for the small flats, the house has large common areas that include a library, a kitchen, a dining room, a guestroom, an activity room, the laundry room and two saunas (see Figure 1). The community takes care of the maintenance tasks of the house by themselves; they also cook and eat together once a day. Moreover, by taking advantage of the common areas of the house and the diversity of its inhabitants, the community offers reading circles, yoga sessions, and other similar activities for all its members. Despite numerous challenges, the objectives of providing access to a lively social life and opportunities to practice different hobbies as a strategy to keep active seem to have been well met so far.



Figure 1 The Loppukiri house and a view to the kitchen from the dining room.

When interviewed about the meaning of the project, Eila, an active member of the association and current resident of the house explains that “... *this project is about exploring new ways of growing old in a society that in the current circumstances is not going to be able to carry us in the same way as before; in here we experiment with the strengths, possibilities and limits of collaboration*”. As a model to follow and learn from, the community is visited and consulted continuously by several other groups interested in following in their steps. The demand and success of this experience has been positive, up to the point that the association itself is involved in the design of a second similar experience in another neighborhood of the city.

¹ The association managed to obtain a price regulated lot assigned by the city for the construction, as well as negotiate a very particular agreement with the construction company and the architect office that developed to a larger than “mere customer” relationship.

2.2 An innovation hub, for what and with whom?

For the purposes of this paper, it is important to notice that the Loppukiri house is located in Arabianranta; a relatively recent regeneration district of Helsinki. Amongst other things, the plans drafted in the mid 90's included the building of a fast data communication network to interlink the area. In 2000 when we started our collaboration with the community¹, the vision for this future network was to create an *innovation hub* attracting businesses in the area with the fast connection. Already back then some of those visions were being greeted with mixed feelings amongst different stakeholders (including city planners, prospective residents, service providers, etc) (Kangasoja 2007) and it was not evident if a housing unit like Loppukiri would be given such connectivity, and if so, for what purposes.

Today the area is still marketed as Living Lab environment for developing innovations², but just yet what that exactly entails or means is far from clear. We believe that their case sheds light on the dynamics of new forms of social collectivity, which challenge our established modes of politics and tradition (Maffesoli 1996) and the possibilities of organizing collaborative production activities (see e.g Leadbetter & Miller 2004) that might represent more accurately real sites of social innovation.

2.3 Research collaboration

Our research group got in contact with the Active Seniors in 2000, at an early stage of their project. We were developing an open-ended participatory and co-design approach and were looking for communities that could work with us over a period of time. We started with the design research interest of studying what kinds of ideas and needs of using digital technology would emerge from a community if their capacities of envisioning such new tools and practices were nurtured through a collaborative design process, instead of a more traditional focus of having an application area predefined.

For our intentions, the Active Seniors was an ideal community to collaborate with, because they had already established for themselves a design agenda, albeit without any intrinsic interest for our themes. However, it appeared that the community had formed because the members wanted to change their own future circumstances and were ready to invest their effort and engage in activities that explored also quite long-term future possibilities – which is not necessarily the case with a random group of people.

Being a very heterogeneous group of people, not all members of the community subscribed to the idea of computers or networks as key elements in their future

¹ This collaboration has been carried out through different funding instruments and with diverse degrees of “intensity”.

² See for example <http://www.openlivinglabs.eu/helsinki.html> for an overview of how the area is presented as a Living Lab

plans. However, they did have a realistic idea of the increasingly important role that communication flows had in achieving their goals (Dalström & Minkinen 2009). Together we asked ourselves what kind of applications and digital media would be interesting and meaningful in such a community? Would there be a need for other visions than broadband for businesses and will such visions have a role in the development and maintenance of the community?

3 Practices for building a community, tools for a Life Project

The seniors' project has been, in a very substantial way, a project of designing and developing an organized way of working together in a quite wide spectrum of fields of life. They initiated the whole idea, gathered together a community, and organized the design process that eventually erected a building, managed the process that arranged how the members bought their own apartments. However, it would not have been possible to achieve these without also designing what kinds of everyday life practices there would be in that future community that would make the new lifestyle socially viable and enjoyable for the members. Now they have eventually already begun to live that life and have implemented and subsequently redesigned many of these practices; all based on self-initiative and collective decision making, as opposed to receiving a service product pre-designed by some external organization. They have successfully developed a functioning, evolving and effective social design culture, very well worth an extensive study on its own.



Figure 2. Mapping practices collaboratively in co-design workshops

Our design collaboration in the early stage (before the building existed, when the community members did not yet live under the same roof) focused on two main aspects: first, exploring in what areas of their future life digital technology

could bring a meaningful contribution and how, and second, supporting their community with a web site.

As we had a very open agenda and wanted to give room for any interesting idea or area of new uses for digital technology to emerge from this work, we engaged in a variety of activities drawing from classical participatory design methods (Greenbaum & Kyng 1991) and co-design activities in the form of workshops to map activities and develop concepts and scenarios; scenario-based use and validation of mock-ups and finally hands-on use of running prototypes (see Figure 2. for some details of those events).

Through out the process we have focused on the idea that tools and practices develop in a co-evolutionary process where new possibilities offered by a new tool will, when exploited, generate new practices. This in turn, will generate new needs for a future tool, and so on (De Certeau 2002, Shove & Pantzar 2005). However, in the kind of open-ended design exploration that we were pursuing, we did not have the new tools yet available. Instead, collectively we had to imagine both the tools and the practices they might relate to. We engaged in several exercises with the seniors that focused on mapping, via structured activities, themes such as “Remembering”, “Coordinating”, and “Sharing”, with the intention to make the normally quite invisible practices of everyday life visible. This provided material that could be turned into seeds for the design activities, and the imagining of the role of new digital tools, and how new practices that take advantage of them could emerge (Botero & Kommonen 2009).

In the following section we will briefly introduced some of the practices they developed alongside with the relation to some the early concepts, scenarios and prototypes we explored together.

3.1 Informing, organizing, connecting

Parallel to the concrete building project, the community worked hard for the configuration of an active community. Sirkka, one of the motors of the project, puts it usually in this way: “*We built at the same time a house and a community*”. This was an obvious imperative when it comes to be able to construct the house, and continues to be a requirement in order to keep the community sustainable. As a working strategy, the community divided into working groups that focused on the different areas of the project.

Tasks such as fund raising, house and interior design, internal communication, community development, IT infrastructure, etc. gave shape to the working groups and divided responsibilities amongst those involved to ensure that all could contribute and decision-making could be distributed. Aided by trips to get acquainted with similar experiences, the organization of formal events, parties and organized self-development activities with invited experts; the association built the basic foundations of the community.

A lot of attention has been placed in keeping everybody informed about the progress and engaged, as in its forming stage the community was dispersed and members were getting to know each other. They developed a monthly newsletter, monthly face-to-face meetings, regular lecture series, social events and parties.

As a way to start the collaboration in a concrete way we helped the community to create a web presence and an intranet for the association. The main objective was to increase their communication channels and engaged in a common project. The working group in charge considered that it was a subtle way to start encouraging members to use the Internet and computers more. We succeed in keeping the more ICT “fluent” members¹ and collaborators of the community informed and in providing a new channel for recruiting members and collaborators. However during the construction phase, the internal site never managed to draw the community. Though internal practices for sharing files and information were indeed rehearsed, this never turned into a functional community medium, since the face-to-face solutions always outperformed the experience of the intranet.

3.2 Sharing and collecting memories and knowledge

As a result of the design exercises with the sharing theme, a few ideas relating to sharing knowledge and memories were taken into focus and developed further in the community.



Figure 3. a) User Interface for sharing voice notes – Puhelaput. b) UI for sharing gardening and garden memories

¹ The internal area has served as a shared repository of official documents and resources, but it was used mainly by the board of directors of the Association; all of whom have had jobs and careers that required the use of computers to some extent.

For example, an audiovisual archive for creating and sharing gardening memories and a library of cooking recipes made out of video tips featuring active cookers of the community were explored. Similarly it was envisioned that communication and community awareness practices could be supported by tools like a platform for using voice messages to produce community news, organizing activities as well as private audio diaries. Sketches of these concepts and the prototypes can be seen in Figure 3.

It has been important to notice that even though only some portion of the ideas reach the demo or prototype stage, and some were simply not feasible to produce, some do continue a life of their own in the community and have been implemented using some other more straightforward means.

3.3 Coordinating everyday life

Since their plan was to take care of the maintenance tasks, cook and eat together once a day, an important theme for the community was how to take advantage of and develop ways to manage shared resources. The community developed a model of working groups for the residents of the building. Each working group (approximately 10 people) takes care of different tasks and has a “work” shift once in six weeks. During the working shift they take care of the planning and preparing of a common meal served Monday to Friday at five o'clock (except for the three summer months), as well as cleaning the house and managing the shared spaces. They also organize and produce different kind of social activities for themselves, there are active residents supporting hobby groups and organizing other activities.

Several other ideas related to coordinating and organizing emerged during the years, including a virtual library that could be physically distributed across their home bookshelves by including those titles that others could borrow, and a reminder system that could be used for the sauna or laundry turns.

A second stage of our collaboration continued later through a design research project¹ that gave the possibility of concretizing some of the earlier visions into implementable prototypes. The most developed prototype started with the idea of a "community calendar" (Lehtimäki & Rajanti 2007) that would help to how to organize and coordinate shared tasks of the community in a more distributed fashion. We will devote the next section to look at this experience in more detail.

¹ This project was funded by the Finnish Funding Agency for Technology and Innovation (TEKES), and it was called “Emerging Digital Practices of Communities” (ADIK)

4 Sustaining the community.

Armed with their previous experiences on ideation workshops, and the wide variety of expertise in the community, the seniors brainstormed through their own working groups and in workshops with us, what a Loppukiri calendar should be. The system was meant to support some of the practices that the community would engage in once living under the same roof. Since the date of moving to the house was close, priority was given to: sharing, booking and using communal spaces; planning the common meal; and organizing and following up activities and offering neighbourly help. A design specification took shape and concluded in a very complete document, produced by the Active Seniors IT working group, describing the calendar and giving it a name: Miina (December 2005). Little by little, the calendar idea evolved into something the Seniors themselves call their Everyday Life Management System: a collection of web-based tools for the seniors which assists in the coordination and sharing of everyday life activities and information (Botero, Myller, Suzi, Kommonen 2007)

For design and production purposes the “system” was divided into several components: 1) the site - a framework for other components and common use cases (such as login and navigation); 2) Profile component to take care of the information of the members of the community; 3) A Dining Calendar - specialized in announcing joint dinners and registering for them; 4) A Shared Resources Calendar - with special features to reserve common shared resources and spaces such as laundry and sauna; 5) A General Group Event Calendar (Figure 3)- to share information with the community about general events; and 6) A Personal Calendar – Figure 4 presents one of the user interfaces, the view to the personal calendar.

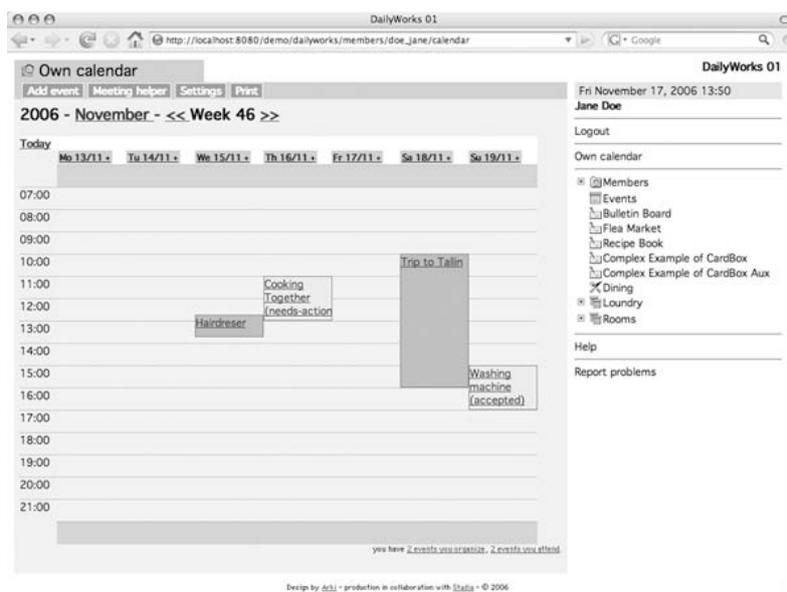


Figure 4. Detail of the main user interface of Miina (demo version)

The first iteration of the service was released in May 2006 at the same time they moved to the new house. The Active Seniors tested the system vigorously and started to take it into use slowly. They also planned strategies to help the rest of the community to use it. A team of volunteers started using the calendars for reservations and events, while a couple of the working groups used it to organize the common dinners. The rest of the community was using a parallel paper solution arrangement they also designed. The IT working group organized usability, or should we say “usefulness”, testing and ideation meetings where they tried and analyzed how the different functionalities connected to their practical arrangements. The meetings produced detailed suggestions and changes to the rules and the behaviors available in the calendars and developed appropriate concepts to be used in the interface. Considerable amount of energy was spent on trying out alternatives for labels and concepts to use in the interface.

It was very interesting to see how the community felt complete ownership of and responsibility for this infrastructure; at that stage we were mostly following the deployment from outside (following the use as we had access to the system) and were available by email and participated in their meetings whenever we were invited. In the following we document certain issues that started to arise once actual use and the routines of everyday life shone more light on the role of Miina.

Announcing or planning?

While the calendar metaphor used during the concept design stage was an inspiring one, certain assumptions contained in it did not scale to actual practices that were already emerging in the house. This was evident with some features made to support the daily meal at Loppukiri. At the conceptual level the “common dining tool” emphasis seemed to be more on announcing dinners and registering for them. However the planning aspect was also crucial but not so well supported. For example, one of the community working groups had compiled a Loppukiri recipe book appropriate for the community. This was being used in its paper version for the cooking as well as for planning the weekly menu and shopping activities. It was also available for those wishing to join the dinner so that all could be aware of the ingredients of a meal (in case of allergies or other concerns). The initial specification and some concept description did include a sketch for the Recipe Book but it was left out from the first iteration. As soon as there was a chance, a Recipe Book component was implemented quickly, in a sketchy way, using the code from the Members Profile component and a new version of Miina with the “Recipe Book” component was rolled out, which improved the situation. Future versions of the system need to address the need of planning and taking decisions (e.g. what to cook, and whether to eat or not) with more flexibility, and a point of view of “media” (like the recipes).

Mixed access points:

A second aspect to develop further is the increasing need to connect and extend these types of solutions to multiple access points. Though much effort was spent in developing the calendars for managing the shared spaces, their use presented some challenges because not everybody was able to use them, or an interface to them did not exist in the actual space. When practices were fluctuating so much and our development resources were scarce, it was difficult to keep both the paper and digital versions of calendars updated.

We soon realized that it was better to postpone the uptake of the digital calendars and focus on the paper interfaces and to develop more the practice of delegating the maintenance of certain calendar functions to some “neighbor” willing to help. Expanding the connections to the paper interfaces is a crucial thing to develop, as well as finding solution for more sophisticated access management strategies that will allow neighbors to help and take actions on behalf of each other, when appropriate.

Though some workarounds already have been found by sharing passwords and accounts, we believe this is an area in which social media needs better solutions as the software infrastructures still have very straightforward ideas of ownership, groups and so forth that do not address the complex practices of multifaceted communities.

Sharing and evolving:

While living together in the house it became more evident to the Active seniors that they will have many uses for a component inside Miina for storing various notes and documents. After the Recipe Book became available, the Active Seniors asked if it was possible to use a “copy” of the Recipe Book component as a bulletin board; in that case we did not have time to implement one. On their own, and to make their point clear to us, the seniors tried a couple of workarounds to make the Recipe Book behave like a community “note board”. They played with the titles of the recipes to get them to appear in different order (e.g. by adding numbers or other symbols before titles to manipulate their sorting, etc.) and “misused” it to fit their purposes. At first, this request did not appear to be of high priority, as they had plans to use other infrastructures like the Arabianranta community portal discussion boards. Nonetheless, it became evident that their use would have required them to maintain and follow more systems and have more passwords and user names to take care of, etc. Hence their Miina seemed to them the right location for such sharing of files and information.

To address that concern and to experiment with ideas of more generic infrastructures, we concentrated the remaining efforts into turning the Recipe Book into a component that could allow building of dynamic containers for information. The result was a new module for creating “information boards” that

could hold items (or cards) whose structure could be defined by the creator and refined. We noticed how the collective negotiation of the naming of concepts and the meaning of the words used to talk about their practices was significant in the community. Since words establish shared understanding about their goals and responsibilities, they were considered very important. The new module made it easy to try new things, with appropriate names, and dynamically "try them out". The appearance of the board could be changed directly by someone in the community if it did not work out (nobody understood what to do or it became messy after a while to manage) and new arrangements and concepts could be tried out at little cost by filling or editing a form. To help jumpstart the process we created the Recipe Book and two other examples of new information structures like notice boards and document storage places. Today Miina has close to 18 different types of "containers" for announcing things, documenting activities in the house and so forth.

5 Discussion and conclusions

There are many kinds of development initiatives to support the development of senior care technology, but this case suggests another point of view: what about community care? Should more effort be put into supporting the ability of communities such as the seniors to be actors and pursue their self-initiative creatively and efficiently? How can design contribute to this?

It is evident that in the Active Seniors' life project, there are direct references to ways in which technology plays a role in organizing elderly care. However from our point of view, the constellation of new practices that they were envisioning (cooking together, supporting neighbourly help, keeping active through community involvement), their organizational strategies (e.g. working groups) and the holistic scope present an interesting case to study what it takes to sustain a "caring" community and the type of tools that are required.

In a particular sense there is no outside "management", and neither specialized care services are provided; rather they emphasize a strong commitment to work for the construction of a viable community. For many community members, an important motivation to join the project has been to expand and enrich their knowledge-sharing activities. Another important theme is that of attending and keeping up with mental (specifically memories, personal recollections, reminders) as well as physical fragility. There is no doubt that to address this concern, shared routines and care commitments could be a way forward. There is plenty of room for novel approaches that allow and make it possible, for example, to document those commitments and perhaps make them accessible to all, while respecting privacy. Though our experiments, Miina included, are far from being perfect solutions, most community members have felt those ideas offer an important prospect to overcome some of the obstacles of living at home longer. Practical

coordination of activities means sharing and managing common resources in a way that both creates accountability and visibility of the common activities and ensures that the activities could be organized and kept alive. There is a lot of work involved in creating and maintaining these types of arrangements that are usually taken for granted or simply outsourced.

There is still much work to be done in finding the right interfaces for these types of social media, but we believe that more effort should be directed precisely towards finding the right type of abstraction level that will allow everyday practitioners to continue fine-tuning (designing) their tools in use. One example of an innovative approach of the seniors to bridge the gap between the not-yet-perfect “advanced technology” and the fulfillment of the requirements of daily life routines, operating as social practice designers, is the development of the paper interfaces for Miina. Such low-tech, extensible and flexible design systems open the ways for the whole community to try new things out and weight them against existing practices and tools since keeping track of 2 accounting systems is waste of resources.

We believe that this is an important goal to keep pursuing, as the task of the professional designer becomes increasingly to provide the appropriate "design" interfaces (or tools) for the users to continue developing their practices and systems through design-in-use (Henderson & Kyng 1991). We hope to continue research to understand the challenges involved in providing open-ended components, platforms, and toolkits that increase and support the design capabilities of the stakeholders themselves.

Our collaboration with the Active Seniors life project has offered an opportunity to explore how diverse design activities, at the practice level, can be conceptualized and realized. Throughout our collaboration, they acquired new design tools and envisioning capabilities and some implementation resources, and were able to include more digital ideas and solutions in their life project. Compared to a traditional client/service situation, we did not propose a "product" for them, but instead an experiment in expanding their capacity to act as designers with new tools and visions. However, eventually we did realize some of the resulting designs as a validation of their meaningfulness. We can say that the capacity of this community to envision and design novel digital systems and their corresponding novel practices did indeed increase, and that they were able to act as quite competent co-designers in the implementation of their systems. We also noted that in the evolution of their practices, open ended and more designable tools are needed, as these provide them with more flexibility to mobilize and realize a greater variety of configurations according to different purposes and circumstances.

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