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Building a platform of social entrepreneurship and living together

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Abstract
The goal of this paper is to present the initial steps of a web / mobile application of co-living and social entrepreneurship to be used in European ecovillages. The application is set to improve existing co-living conditions through more collaboration between its members, thus contributing to more stability and better long-term relations. The main hypothesis is that if we manage to decode and re-introduce co-living activities, already taking place in ecovillages and ecoquartiers, in a clear, open and collaborative way, then we can stimulate more entrepreneurship in between communities, as well as other actors. In order to test and implement the first version of this application and build on an open and collaborative approach, we participated in a Social Hackathon (2018) presenting our concept for establishing a prototype. The results of this effort are included in this paper. Finally, our initial deployment target public will be one network of ecovillages (Ecopol - Smala) based in Switzerland.

Keywords: *Living Lab as a service, Living Labs, Business model, Design-driven innovation*

1 State of the art and research questions

Co-living and sustainable communities is an issue of intense research interest. Ecovillages incorporate a variety of ways of living in community with others, providing new departures in personal, social, and ecological living (Bang, 2005). While technologies themselves cannot address the societal challenges (Bierens de Haan, 2006) in ecovillages, they consist of an inevitable playground, particularly when they are coupled with collaborative skills and social entrepreneurship opportunities. Reuse and improvement of existing process in a community can be a form of innovation and extend to include frameworks, processes, and policies (Waugaman, 2016). However, adaptation of communities to new technologies can be a quite difficult task. Especially, when it comes to using new application and tools that go beyond the existing habits there can be significant resistance. Nathan (2008) provides as with an interesting perspective and an example of a digital technology paradigm that has resisted adaptation. He states a situation of a community where all members have access to and check email at least once a week in order to receive critical information; business meeting agendas, proposals, and minutes. According to a key member of the steering committee, “email is much more efficient”. Yet during each meeting there are members who have not received the information because: (1) email was not addressed correctly, (2) attachments were missing, or (3) email was not read by recipient before meeting.

This perspective demonstrates that specific applications have a clear role to play when it comes to organising every day or longer-term activities in communities of people that share similar living habits. Particularly, when it comes to multiple tasks with different context, participants and level of complexity. This is why this project adopts the methodological approach of collaborative action research (Somekh, 2006), which requires a feedback loop that links the processes of planning, acting, observing and reflecting throughout the project cycle. Methodologically this leads us to the development of a mixed methods research plan, whereby different data collection tools and the data resulting from them (web analytics, rich data resulting from interviews and focus groups with stakeholders) are used in a complementary manner during different phases of the project. Our evaluation will thus address the following broad themes: How do people perform certain tasks in a community? Can internet applications help them in their organisation and implementation? How do communities understand collaboration into their ongoing online and offline practices? What about privacy in and between communities? How should the application help people interact differently with it? What kind of objectives should it serve? What are the forms of socio-technical innovation produced during the use?

2 Objectives and methodology

Following the work of Daly (2015) there is a need for visioning process of the process in an ecovillage providing a means of raising many practices and elements, particularly meanings, from the practical to the discursive consciousness of all members of the community. Bringing daily habits, or elements of practice, into a discursive consciousness is a crucial step in creating pro-environmental change, and one that should involve a social exploration of

new alternatives at a group or community level (Kitchen, 2009). Our application seeks to move between the social and the technological, proposing four (4) major objectives: a) Better organise existing activities in communities, b) create a platform based on (social) co-living tasks and results, c) identify and promote social entrepreneurship opportunities and d) improve and promote intentional communication and strengthen the bond between people involved in the ecovillages.

The main socio-technical characteristics of the application as set in collaboration with the Ecopol – Smala community can be described as follows (Bondolfi, 2005): a) free and open source development and licensing, b) open participation with the invitation of various stakeholders including inhabitants, visitors, researchers and policy makers to review its deployment, c) respecting user privacy using cryptography for personal data and d) controlling published metadata with explicit user authorization and decentralised database architecture that secures its long term sustainability and community oriented approach. The application itself should be modular and transformable to a social entrepreneurship market where participants agree on the data aggregated and published at a central space. These data can be communicated and connected to other community platforms, matching supply and demand in regional, national and international level.

More specifically, we contacted five (5) interviews with the coordinating team of the Ecovillage, including habitants and selected members of the co-working space. Our questions were structured around two areas leaving together and opportunities to work together. Following several working sessions during 2018 within the actors of the Smala – Ecopol ecovillage, we came up with specific proposed, initial, functions that are described below. Their listing serves as a way to explain to participants the potential use of our application for:

1. Preparation, animation, and follow-up of co-inhabitants/co-operators reunions
2. Attribution of responsibilities within workgroups, satisfaction feedback from the beneficiaries of the workgroup's services
3. Management of the resources acquired through common budget (rooms, furniture, equipment, shared spaces etc)
4. Online buy and sell possibilities connected to local networks, coordinated by secretaries/facilitators/delivery people
5. Satisfaction indicators for services provided by the community members to the members (cleaning, garden, personal tidying, maintenance)
6. Online support and documentation of various checklists, online-based, request forms.

Our main assumption is that the tasks and needs deriving from the above functions will be covered from the communities themselves, while creating opportunities for larger partnerships with other communities, such as SMEs, entrepreneurs and activists. Our initial deployment target public for the prototype version of the application is a specific network of ecovillages (Smala - Ecopol). The plan of action consists of: a) co-designing the application by assigning concrete activities, roles, logistics, evaluations, services, based on its early prototype described above, b) validating the functions and evaluate its results in

specific pilots, c) measuring the entrepreneurial potential within the selected communities and d) promoting, at a later stage, the results within european and international ecovillages.

Testing and deployment of the prototype could lead to the appropriation of the application as a collective, co-working platform. Following Silvestro's conclusions, the ecovillage is intended to create from scratch a micro-society where each member will be able to discuss and voluntarily integrate the proposed social contract (Silvestro 2005). Further, the platform should organise groups and data in a way that will facilitate exchanges and transactions between the members of every group (community) but also at intra community lever.

3 Co-designing and co-developing the application

As already highlighted, our approach comes with a collaborative impetus focusing on creating a positive space and experience for this to happen. We look to boost collaboration within communities and promote entrepreneurship opportunities in order to make co-living possible. Our collaborative approach is twofold: on the one hand, co-design the application with members of the Ecopol - Smala Living Lab through focused interviews described above and, on the other, present these requirements to a wider - open community both for their review and development (Social Hackathon).

With the first wave of requirements listed above, we decided to test our collaborative approach openly from the very start of the implementation of the application and participate to the third edition of the Social Hackathon Umbria (SHU, 2018). The Hackathon was focusing on unveiling how digital competence, sense of initiative and entrepreneurship represent some of the most required competences by the labour market and, therefore, their development should be strongly promoted by the European Union for citizens of all ages and origins. The Ynternet.org - Smala team actually won the b-work challenge of the SHU 2018 and received the prize for the "Best Digital Innovator for Entrepreneurship". During the 48 hours Hackathon, teams choose to produce a pitch, a prototype or a product to be presented in front of an international jury. Ynternet.org participated on the B- WORK challenge.

The Social Hackathon Umbria collaborative process can be described as follows. Each team was composed by a member of the organisation who submitted the idea (the team leader - Ecopol Smala Living Lab in our case), three (3) hackers - coding specialists, and four (4) support team members.

The roles in the Ynternet.org team were easily defined, which helped the workflow. The "hackers" worked on different parts of the app: while one constructed the "brain" of the app, a graphic designer gave it a face, while the third one made it compatible with portable devices (android and IOS). The support team members had a crucial role in the brainstorm phases and in the development of the content for the final product, while the team leader was responsible for presentations, delivering the pitches, meeting with the audience and answering to all brand/product representations needs.

We started out this process with an open exchange of ideas with the team. The team leader took the time to go over the first draft of the idea, the specific and concrete needs the app is trying to answer, and the main characteristics of “living and working in an ecovillage”. Each team member had the chance to question and contribute with their own ideas. This was a very critical moment as it was the first time the product idea was submitted to a brainstorm group exercise. This moment allowed to redefine the product and at the same time it became more realistic and doable in the time we had available (48h).

After few hours of brainstorming, the idea was presented to a panel of experienced members of the jury. A seven-minute pitch was prepared and the jury gave their first feedback. This initial feedback from the jury allowed the team to better understand the criteria under judgement and better adapt to the requests. Frequent team meetings took place in order to distribute workload and tasks, to find solutions for problems and to promote the flow of ideas and emotions between the members of the group.

During the two days in which the app was developed, members of the jury, audience and other important stakeholders including local politicians and members of other international organisations were involved by giving targeted feedback. They were also encouraged to visit the work space of the teams and check the work in progress. This moment resulted to a rich feedback with concrete questions and specifications. The team extrapolated new needs and new solutions to those needs enriching the final product.

4 Initial results

In a nutshell, we competed against one other international team to build a mobile application promoting better communication and entrepreneurship attitude in ecovillages all over the world. As an overall evaluation of the Hackathon process, we consider that the collaborative methodology with the clear time frame and moments of feedback/pitching are an extremely useful environment for development of creativity and problem solving of very real issues of our 21st century society. Below, we present a more detailed description of the results of the common work between our team, developers and activists in place.

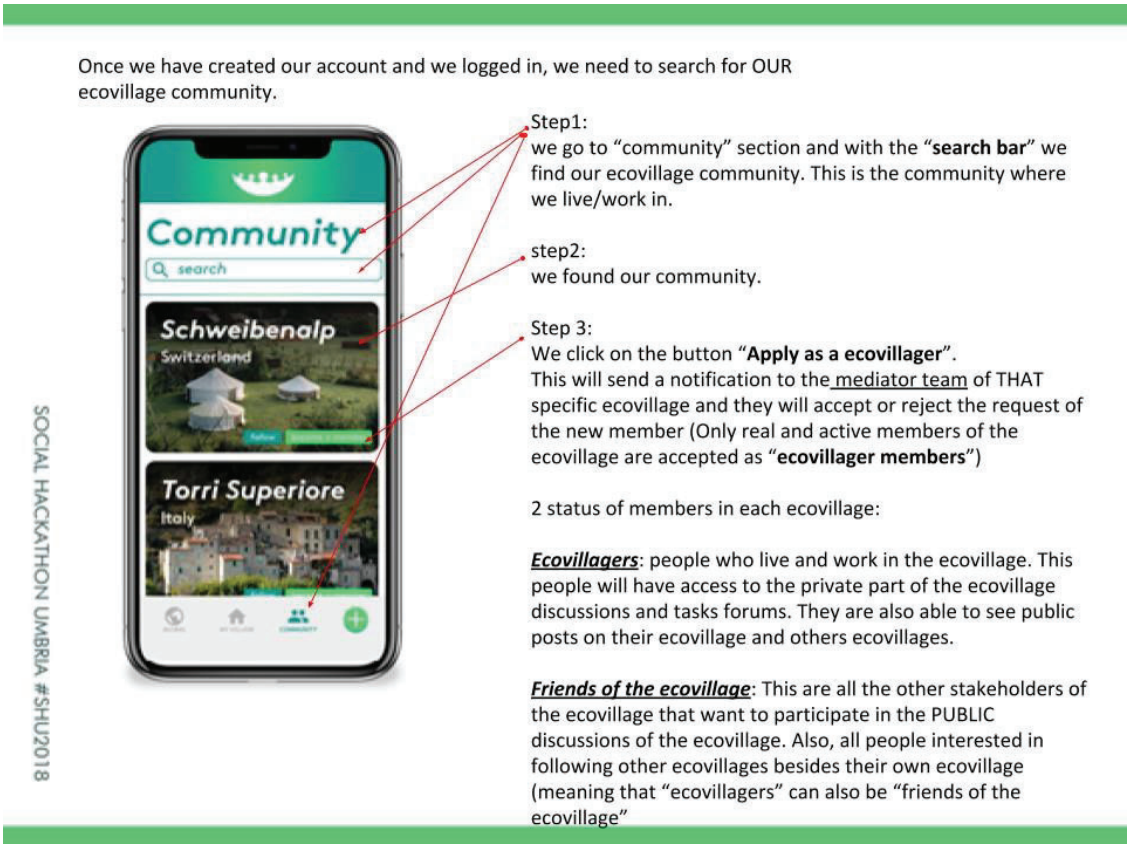

Figure 1. My community

In this section, the user becomes member of her ecovillage ("Ecovillagers") with access to the private part of the ecovillage discussions and tasks lists and forums. Members are also able to see public posts on their ecovillage and others ecovillages. Friends of the ecovillage are all the other stakeholders of the ecovillage that want to participate in the PUBLIC discussions of the ecovillage (meaning that "ecovillagers" can also be "friends of the ecovillage" if they are interested in following other ecovillages besides their own ecovillage).

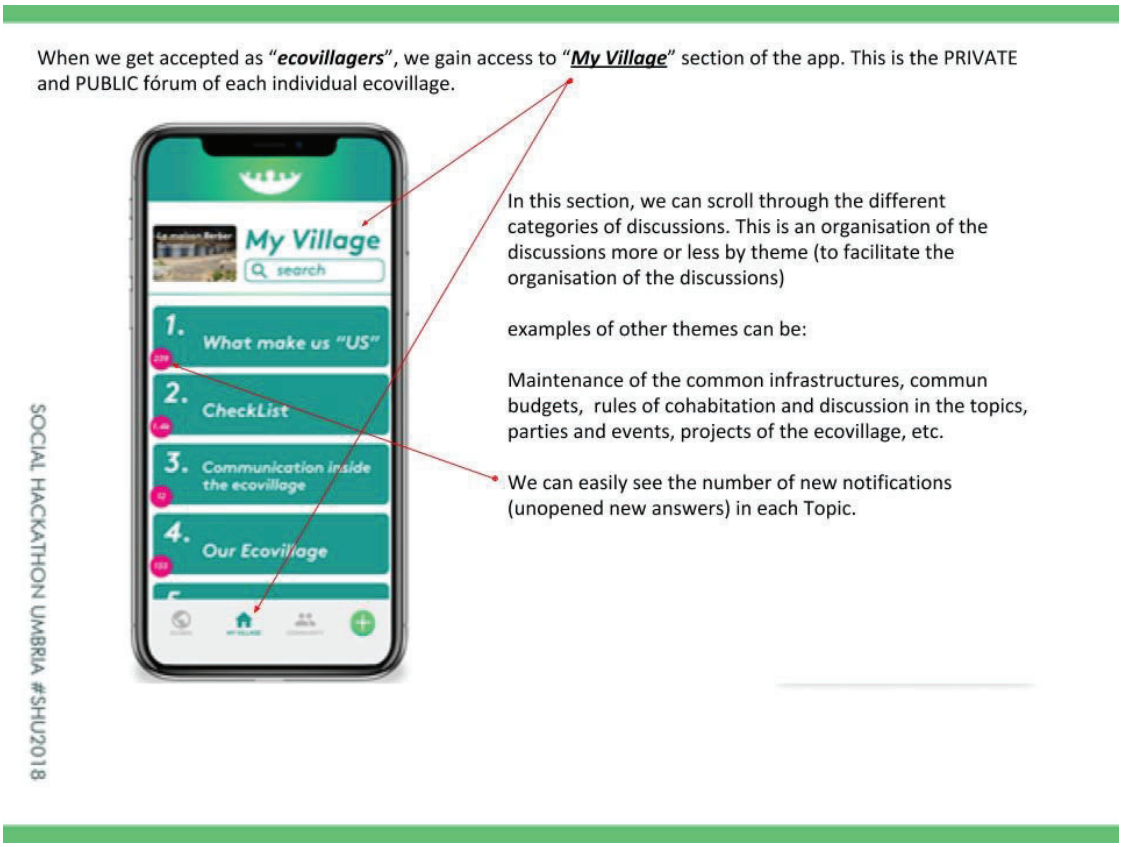

Figure 2. My community, my village

In this section, we can navigate through the different categories of discussions. This is an organisation of the discussions more or less by theme (to facilitate the organisation of the discussions). Examples of other themes are the maintenance of the common infrastructure, common budgets, rules of cohabitation and discussion in the topics, parties and events, projects of the ecovillage and others. Posts come with a set of metadata (description of the post, body of the post) and number of tasks are identified in the post. Different answers from other members of the ecovillage are possible and new tasks are added to the list of things to prepare in the checklist.

Figure 3. The Checklist

In the checklist section in the example, the author of the task agrees to do the task but needs help from other people. She adds a description of the task (small text, plus costs, timeline to do the task) and check the people who said they could help with this task. The colour code selected includes:

- *Vivid Green:* task was completed with success.
- *Bluish Green*: Task is open. It means that it still needs people to volunteer.
- *Red:* the task is now closed and it was not completed successfully.
- *Grey:* task was cancelled or deleted.

This colour scheme allows an easy and informal diagnosis of the ecovillage's activities.

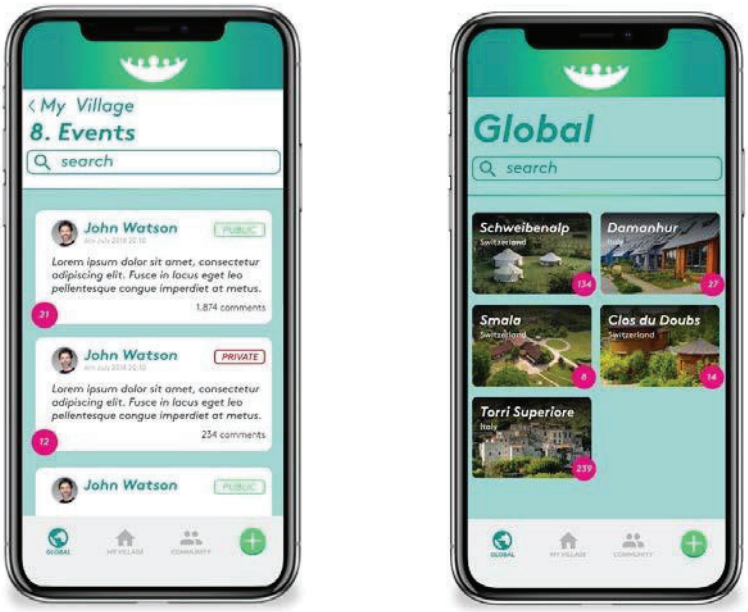

Figure 4. Events and Global

If needed a Post can change its status from PRIVATE to PUBLIC (and vice versa), in order to reach a larger audience and become an Event to promote an activity. In this case, the post will be visible in the "Global" section of the application. In image 4, we can see all the PUBLIC posts of the different ecovillages we follow as "Friend of the ecovillage". We can easily see the number of new notifications (unopened new answers) in each Topic.

5 Conclusions and next steps

Following these initial results, the team is spending time in 2019 to secure the budget for implementing the code and the process of the proposed application. Our deployment target public will be the network of ecovillages of Smala - Ecopol with a plan of action that consists of:

- Continuously co-designing and testing the next version of the application by assigning concrete activities, roles, logistics, evaluations, services to the Smala - Ecopol participants.
- Validating the functions and evaluate its results in specific workshops.
- Measuring the entrepreneurial potential within the selected communities.
- Finding collaboration and funding opportunities to improve, develop and diffuse the application.

We remain confident that our application will be in full production and used in the Ecopol Smala Living Lab during 2019 - 2020 giving us new insights for this work.

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