# SHARING ECO-SOAP KNOWLEDGE – JOOSOAP STUDIO

# DESIGN AND APPROACHES FOR SUSTAINABILITY

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### ABSTRACT

In this paper we document some of the experiences gained while designing and prototyping JooSoap Studio. JooSoap Studio aims to make it easy for people to gather and make eco-soap products together, anywhere in the world. The Studio is part of a larger project that aims to spread sustainable knowledge around making ecological cleaning soap (eco-soap) from recycled used (kitchen) cooking oil pioneered by activist communities in Japan and Taiwan. JooSoap Studio experiments with tools, practices and infrastructures that will help spreading this knowledge to more communities, through local engagement, aiming at sustainability and replicability of the information.

# INTRODUCTION

JooSoap Studio explores ways in which design activities can support local communities to enact change regarding two contemporary environmental situations: 1) Cleaning products are some of the most toxic products that exist. The serious environmental impact of synthetic detergent in water and in air pollution has been discussed and researched in the past decades (see e.g. Foster 1999) and we are in urgent need of more sustainable alternatives to them. 2) Inappropriate household garbage disposal is an important contributor to environmental

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pollution. Especially the disposal of household used cooking oil is very problematic in some parts of the world. There are usually no clear guidelines on how used cooking oil should be disposed of or recycled. Moreover, restaurants and households usually tend to ignore the situation and thus used cooking oil is dumped into sinks and sewers. This causes environmental damage that is not only costly to clean up, but contributes to unsustainable every day ways of life.

Used cooking oil can be a resource in producing eco-soap that is apt for cleaning purposes. Simple techniques to make this type of eco-soap have been developed by several activist communities, especially in Japan since 1980s and Taiwan since 1990s; however the knowledge associated with it is not widely available internationally. Working closely with the *Maple Culture Association*, the main aim of developing *JooSoap Studio* is to search for ways in which the experience, practices and knowledge gained by these communities can be shared and spread more widely and serve as spring board for the formation of new and connected, eco-soap making communities.

The work described here is part of an ongoing MA degree project of one of the authors. In this paper we first briefly recount the collaborative action research made with *Maple Culture Association*, we then discuss some of the infrastructuring activities (Björgvinsson et al 2012) in terms of prototypes, resources and activities we have made, and finally share

some of the lessons learned and future plans that exist for JooSoap studio.

# DEVELOPING ECO-SOAP KNOWLEDGE: MAPLE ECO-SOAP STUDIO

Taichung Maple Culture Association (see <u>http://www.maple.org.tw</u>), is formed by active residents of Taichung, in Taiwan that have developed over the course of the last decades a considerable amount of concrete experiences and networking practices for making ecological cleaning soap from recycled cooking oil (Figure 1); while at the same time raising awareness of environment and other health issues around eco-soap.



Figure 1 Making together eco-soap from used cooking oil in the Maple eco-soap studio (Taiwan) - Taichung Maple Culture Association.

Their main way of working is through face-toface workshops and other events for the larger community were eco-soap making is introduced and demonstrated in a studio setting. This local soap studio has good connections with many stakeholders: the municipality, local residents, as well as restaurants and factories. They all are part of an eco-soap network production that the association has created in the city (see Figure 2.)

For example, the majority of the cooking oil used in the soap production comes from local restaurants, and the paper packaging materials are leftovers of a local printing company. Stakeholders receive eco-soap products in exchange for their contributions, and other parts of the production are sold to interested parties. At the same time the association is

actively assisting communities and groups around Taiwan to establish their own eco-soap studio so the idea of local production for local use could be achieved. There is a strong cocreation and sharing spirit, with many of the people involved developing new tips for soapmaking (e.g. to target local weather conditions) and improving the network, but with not many good communication channels for it. In order to encourage more people to become eco-soap lecturers, and teach others, the association created an 'Eco-soap Lecturers' Group'. The group gets support and is certificated - by the Taichung City Environmental Bureau and the City Mayor for their contribution to the protection of local environment and education. However, the group has not documented their practices much nor share them through other means (e.g. digitally).

The association's knowledge sharing activities have improved local community development through the events themselves and by providing an extra income from the selling of eco-soap products. Their local dissemination is good, but they are interested in to share their knowledge even more and strengthening the possibilities of networking.

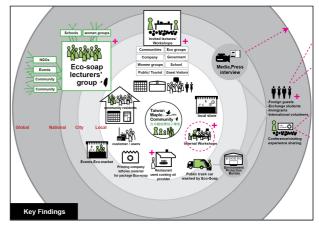


Figure 2 Maple Culture Association stakeholders map with development opportunities highlighted (made together with the community).

One can say that their ultimate objective is to raise awareness about eco-soap knowledge, by which we mean not only the *information about making eco-soap*, but also an *awareness of the wider environmental concerns associated* with it and the possibilities of *strengthening*  *relations* that *making things together* opens up for.

## INFRASTRUCTURING ECO-SOAP KNOWLEDGE: JOOSOAP STUDIO

Sharing eco-soap knowledge has been quite successful at local level in Taiwan, but a new set of challenges appears when scaling up. To deal with some of those challenges we have been designing a series of tools, practices and infrastructures that could help spreading this knowledge to more communities, supporting local engagement in other contexts and documenting the information and activities in new formats and through new resources. This experimental setting we have called JooSoap Studio. JooSoap Studio should make it easy for people to gather and make eco-soap products together, anywhere in the world.

The vision for JooSoap Studio is to be an ecosoap knowledge network facilitator aiming to encourage and inspire more people and groups around the world to get involved, while at the same time building from and connecting with the strong local experience and inspiring movement in Taiwan. The initial steps have included iterative design and testing of key aspects of the future concept:

1) Prototyping of an online repository of ecosoap knowledge and activities, as a type of knowledge commons (Hess & Ostrom 2011) that could support communication and collective action in flexible ways.



Figure 3 JooSoap Studio's main website. A how-to video welcomes visitors to the site

The repository includes documentation of activities and learning from previous and future concrete experiences by eco-soap knowledge activists in the form of stories, events and news (on going). We have also design, translate and produce in different media (video, pictures/illustrations, text) resources such as guidelines and scripts for workshops, workshop props and toolkits, ecosoap instructions and recipes (Figure 4). The materials are free to download and use. Prototypes have been implemented with the help of different cloud services. E.g. JooSoap Studio website (blog platform), a networking place (Facebook page and group), audio-visual documentation repository (YouTube channel), and a series of DIY instructions and resources like labels and packaging ideas (instructables.com). The materials have been spreading nicely and we have got many requests for info and contacts from abroad.



Figure 4 Example of labels that assists the workshop activities.

2) Envisioning and prototyping future ecosoap making together practices that can be supported and augmented by the above mentioned knowledge commons (Figure 5).



Figure 5 Snapshots from a co-making workshop in Finland. Instructions and labels are printed for all to use

The most developed one is the idea of *co-making workshops*, events were more than lecturing style (as in the original format of the Maple studio), there is more encouragement for open discussion and co-creation of all aspects of eco-soap making (packaging included) and specially open discussion of the challenges and opportunities of eco-soap making together and sustainable practices.



Figure 6 JooSoap toolkit for trying-out eco-soap making

A second one is the proposal for *try-out-together workshops (with a rental toolkit)*, which proposes the feasibility of conducting an eco-soap making session without a knowledgeable lecturer or tutor. To prototype this, A JooSoap Toolkit (Figure 6) was designed for encouraging participants to hold their own co-making workshop relaying only on the materials and props included in the toolkit and the online resources (video, printed instructions, etc.).

#### CONCUSIONS

"I will try again, with my friends next time." (Workshop participant, women)

Both workshops and associated practices have been well received by the people engaged in the trials. Observations and discussions have shown that hands-on workshops are a great activity and that the materials and the toolkit do motivate people to start their own adventure with eco-soap knowledge (even hold their own workshop). However, there are still challenges e.g. in arriving at an appropriate level of detail for the documentations and in encouraging and supporting people to document and share more their own experiences to continue growing eco-soap knowledge with more diversity.

We have gain deeper insight of people's opinions around eco-soap knowledge and at

the same time explore alternative practices (like more media sharing) for making eco-soap together with participants.

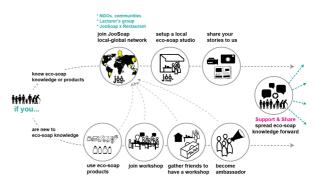


Figure 7 Strategic orientation for Eco-soap knowledge - JooStudio

The good reception of the ideas and the continued positive feedback that we got during the experiments have encouraged us to think that indeed this is an important context for design intervention. Soaps, labels, videos and doing thing together can play an important role in raising awareness and sharing knowledge for more sustainable ways of life. Design, as we know, offers concrete ways to help document, scale and make information and knowledge more accessible; and it can offer also strategic orientation to help grow a movement.

Plans for the future include supporting global sharing and networking through the repository and collaborating with international events. This will generate publicity for the eco-soap knowledge and at the same time improve the connections of local eco-soap movement activists, especially previous key participants.

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