

## Open-ended processes, open space technologies and open laboratories

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*It is a fearsome thing, like diving into water. And yet it is exhilarating—because you aren't controlling it.*  
Christopher Alexander

### What is FoAM?

FoAM is a laboratory for people engaged in hybrid practices, people whose knowledge tends to fall through gaps between disciplines (or ties together disparate disciplines), people who thrive in the interstitial spaces between culture and science, technology and ecology. Since its inception in 2000, FoAM has changed appearances, from a department in a Brussels-based private research lab, to an independent artist-led organisation, to a networked entity, with studios in Brussels and Amsterdam and partner organisations worldwide. Its collaborative structure allows FoAM to remain small and flexible, able to change directions and contexts as appropriate.

The primary focus of FoAM's work is in what has become known as 'Hybrid Reality' or 'Mixed Reality' (MR), where physical and digital worlds are increasingly intertwined. The most common forms of artistic works in MR include responsive environments, context or location specific games (eg. LARPs—Live Action Role-Playing games or ARGs—Alternate Reality Games), active materials and tangible (or gestural) interfaces.

### Knowledge sharing

In the process of developing MR works, our collaborators have gained substantial knowledge, skills and contacts, which tend to be uncommon amongst artists or other members of the cultural proletariat. This is perhaps due to a lack of contact with scientific communities, the prohibitive cost of proprietary technology, or the knowledge and persistence required to participate in open source communities. As an organisation which can function as a 'mediator' between the scientific and technological and the artistic worlds, we feel that we should share this knowledge with a wider group of our peers and audiences.

The sharing of knowledge is incorporated into the core of our projects as professional development and participatory design activities. These activities can be designed for our peers, students or enthusiastic DIYers, marginalised groups (who would otherwise rarely come in contact with contemporary artistic works), or the general public. They can occur at various stages of a project and can range in scope from informal parties where a part of a project is presented and tested, to facilitated workshops, to fully fledged anthropological and design studies. Each of these forms of knowledge and skill-sharing has its own requirements in terms of space, time and commitment required and, as such, should be designed carefully, adapting existing models where appropriate, or inventing new models where necessary.



Soft-wear: Collaborative fiddling. Image courtesy Joanna Berzowska.

### Designing and planning

Designing our workshops and other professional development activities can begin with particular goals, a specific topic, or solidify from vague ideas of how to bring several themes together. These can be collected from within FoAM, as well as from suggestions from previous, or potential workshop participants. The subjects can cover anything from teaching kids how to make their own computer games; to helping a group of prominent artists to make their practice more ecologically sustainable; to working with families on urban guerilla gardening.

With the topic and the goals determined, we look at the group in terms of their shared and lacking knowledge, which suggests different teaching methods, workshop leaders and formats. Depending on whether our goals include teaching specific skills (e.g., basic electronics), or whether they are of a more holistic nature (e.g., understanding the dynamics of human-computer-human interaction in MR), the workshops can require either focused hands-on tutorials, free-form group learning, or both (or perhaps something else all together).

Since FoAM is not an official educational institution, we are free to explore a wide range of teaching methods, and use what we think would be most appropriate for the participants and topics at hand.

An important part of the workshop format is the space and atmosphere in which the workshop takes place, as is the time allocated for it. In our experience, if the workshop lasts around a week, it works best if the participants are with each other continuously. A 'retreat' tends to produce a much deeper and more engaged understanding, while social interaction provides a chance for everyone involved to get to know each other on different levels, often resulting in new collaborations and friendships. In such a setting, people's attention is focussed, they occupy themselves not just in terms of working and learning, but also in conversing, relaxing and eating together, away from their daily habits and contexts.

Preparation, consumption and sharing of food during workshops is an often overlooked aspect which we find crucial to the success of the events. In the workshops that we organised, we found food an infallible bonding agent, regardless of age, culture or gender.

Finally, an important element of the design are the participants themselves. In our workshops the participants usually include a mixture of those who have been invited and those who responded to an open-call, their selection being primarily based on their motivation. The second important selection factor is the overlap of interests and the complementarity of the skills of different people in the group. Each person should share some common characteristic with at least one other person (who should have something in common with at least one other participant). Selecting a group in such manner assures a compact, yet diverse team that can learn a lot from each other, in addition to learning from the workshop leaders.

### **Open space and individual responsibility**

As workshops are usually concentrated, short term and often unique learning opportunities, their quality should be high. In order to get as much out of the workshops as possible, we share the responsibility

for the quality and depth of the event with the participants. We state this clearly at the beginning of each workshop, making sure that the participants are aware of the 'principles' of their engagement.

We found a great source of techniques and principles for steering group dynamics towards shared, collaborative processes from colleagues working as consultants for conflict resolution and business strategy. We were pointed towards 'Open Space Technology' (OST) as an interesting format for a variety of situations. OST is founded on the basic assumption that all participants are passionate about the topic, and responsible for their actions. Based on this, we introduce five principles:

1. whoever is present, they are the right people for the project at hand
2. whenever a process starts, it is the right time
3. whatever happens, it is the only thing that could have happened
4. when it's over, it's over
5. do what you need to do, and go where you need to go, but don't waste time

These simple principles allow the individuals to find their own place and pace, while encouraging a group spirit. They have been proven in large scale conflict resolution settings (for example, in Bosnia after the war in the 1990s), as well as in small, diverse groups dealing with complex issues.

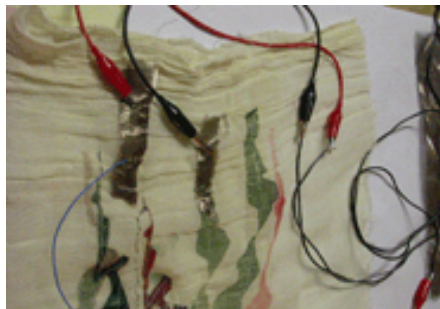
Open space events enable the participants themselves to shape the agenda, allowing everyone involved to present and discuss issues that are most important to them. There is no passive consumption of knowledge, only pro-active participation, learning and sharing. OST may not be suitable for all workshops, but its principles can be applied in a broad range of situations, regardless of topic or teaching method.

### **Soft-wear and Soft-ware, two case studies**

Two examples of FoAM's workshops using OST are 'Soft-wear' and 'Soft-ware'. The workshops were designed to explore different ends of the mixed reality spectrum—responsive textiles (soft-wear) and real-time computer animation (soft-ware). Both workshops involved a mixture of hands-on and theoretical sessions, requiring active participation and creative commitment from the participants. Both were held in the same studio and each concluded with a public presentation. During the course of the workshop all participants had

the opportunity to present and discuss their artistic practice. This ensured that common interests and collaborative possibilities were expressed in a face-to-face situation.

The Soft-wear workshop, (a.k.a. 'The Knitting Club', led by Joey Berzowska and Rachel Wingfield), taught fifteen people basic electronics, along with the basics of textile design, weaving and printing. It swiftly moved onto emerging areas of soft electronics, flexible displays and shape-memory materials (materials able to change shape under different conditions). We found that short, concise tutorials were enough to get people started 'fiddling' on their own. When reference material and expert support were provided, the participants came up with some mind-boggling designs and even stranger technical solutions in a matter of hours (individually, or in groups). Over several days, their ideas matured and the techniques reached a point where they could continue experimenting on their own. The results included electro-luminescent potatoes and glowing wall-paper which reacted to sound levels in the room; prototype garments which changed colour depending on buttons being open or closed; textile radios sewn onto trousers which transmitted AM noise. Even though the experiments were not all finished, the participants acquired many new skills and knowledge applicable in their individual practices—from interior design, to audiovisual performance and electrical engineering.



*Soft-wear: Powering a textile. Image courtesy Mette Ramsgard Thomsen.*



*Soft-wear: Demonstrating the result. Image courtesy Joanna Berzowska.*

The Soft-ware workshop, which focused on the emerging realm of 'real-time' animation (lead by Dave Griffiths and Nik Gaffney), had the advantage of a common technology which was used by all participants—'fluxus', a programming environment for generating digital graphic worlds. The main challenge for us with this heterogeneous group was to balance the range of skills in computer programming and to keep the group conversations alive, without the



*Soft-wear: The working table. Image courtesy FoAM.*



*Soft-wear: Sewing and soldering. Image courtesy FoAM.*

participants disappearing into their glowing screens. Each morning the workshop leaders went through theoretical and practical tutorials on a single large screen, or scribbled on large sheets of paper. In the afternoon the participants would work in pairs, designing small experiments to implement some of the techniques learned that morning. This 'pair programming' technique was borrowed from a software development method known as 'extreme programming'. As one person enters code, the other will keep track of the overall structure of the programme, ask questions, discuss the code being written, as well as notice typos or potential errors. This tends to make programming more social, the teams work faster, make fewer obvious mistakes and have fun seeing each others' results, mishaps, or amazing feats of abstraction-wrangling. Often, similar question arose from different pairs, so the pair's screen would be projected on the wall, enabling discussion with the whole group. In this way, people would be temporarily drawn away from their own projects, giving them a few minutes of distance, or a new idea. In the same space, we brought a collection of movies, animations and books, so that participants could take breaks from crafting their own animations, while still being immersed in wondrous animated worlds. The evenings were reserved for informal 'fiddling' and screenings of different materials. At the end of the week, there were dozens of little animations—abstract and figurative, glitchy and slick, responding to movement, ambient network traffic, or the rhythm of music.

### Open Labs

Many workshops have some kind of public moment as their culmination. This is not always a good way to finish a workshop, as it can put an unnecessary emphasis on presentation and can destroy the process of careless exploration, which is crucial for informal learning. We are therefore very careful in designing these



*Soft-ware*: Discussing animations. Image courtesy Alkan Chipperfield.

public presentations, so as to satisfy both the participants and the audiences. The format that we used in both *Soft-wear* and *Soft-ware* is the 'Open lab'—simply opening the doors to anyone interested.

In *Soft-wear* the working space itself was an intriguing setting, with large tables covered with strange materials and semi-finished experiments. During the Open lab, the participants continued to work on their 'pieces', explaining their process to anyone interested in what they were doing, sometimes even giving their own *ad hoc* tutorials.

For *Soft-ware*, we felt that the fluxus environment should be shown in its full glory—used by an expert (Dave Griffiths), so the audience could better understand the relevance of the different experiments. We also wanted to bring an element of physicality amidst the forest of flickering screens, so we invited Stevie Wishart to play her augmented hurdy-gurdy, a very analogue instrument which incorporates movement sensors able to influence synthesised soundscapes and visuals generated with fluxus. After being flooded with hypnotising images and sounds, the audience was invited to chat with the participants, whose experiments were projected throughout the space. They were able to linger for hours, while sipping thematic cocktails and tasting 'animated' foods.

## A few recommendations

There are many different ways of organising and designing workshops and many exciting topics to be covered. We approach the process differently each time, in consideration of the people involved, the contexts in which the workshops are held, or the subject matter. However, there are a few recurring threads that we try to improve upon each time:

- Having two or more workshop coordinators proved to be a good thing, but it is essential to keep each other continually updated on directions, processes and findings.
- Oral and/or written summaries of the material covered should be provided for the participants each day (first thing in the morning might be the best time), preferably with short discussions and suggestions.
- Some topics may require longer, a time-frame with more time for reflection—this should be incorporated into the duration of the workshop.
- The participants should always have a 'syllabus' to take with them, which should include materials covered in the workshops, suggestions for further reading/viewing/listening and contact sheets.
- Evaluation of the workshop process should be carefully planned.
- If there is a public presentation of the results, it should be discussed and designed together with participants, with consideration for the audience.

Even though our workshops vary, there is one common aim shared by us and our participants. We believe that transdisciplinary knowledge and hands-on skills encourage a more pro-active and responsible participation in all aspects of our everyday lives. We greet people, and part, with a simple message: "grow your own worlds".

More detailed information about the cited workshops can be found in the book *x.med.a*, downloadable from [xmeda.be/xmeda.screen.pdf](http://xmeda.be/xmeda.screen.pdf).

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