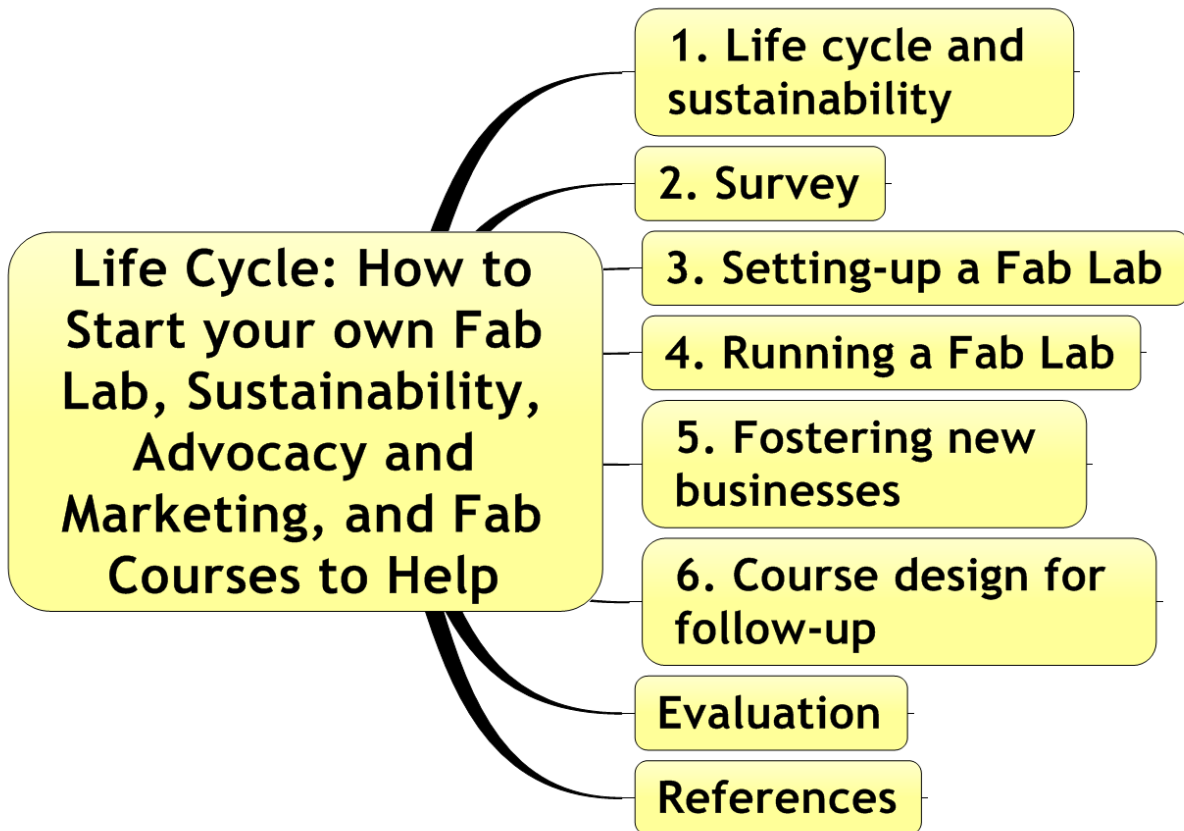


Life Cycle: How to Start your own Fab Lab, Sustainability, Advocacy and Marketing, and Fab Courses to Help



Final, 7 September 2012

Summary of a 3-hour Workshop during Fab8 International Conference; Wellington, New Zealand, 22-28 August 2012; 25 participants, facilitated by Beno Juarez (beno@fablablima.org), Lindi Mophuti (lindi.mphuthi@gmail.com), Victor Freundt (victor@fablablima.org) and Pieter van der Hijden (pvdh@sofos.nl).

All materials can be found via <http://www.fablabinternational.org>, page "Resources".

1. Life cycle and sustainability

Introducing earlier research on sustainable Fab Labs and underlying business models as well as the Fab Lab life cycle – Pieter van der Hijden

The workshop started with a short review of the Fab7 presentation "Sustainable Fab Labs" by John Boeck & Peter Troxler (Lima, Peru, 2011). The authors interviewed about 8 Fab Labs on sustainability issues. They found out 5 types of underlying business models:

- Access, production - hourly access, personal production, local production
- Education - workshops, training, degree certification
- Enabler - Products & services to enable Fab Labs: software, installation and support, supply chain, curriculum
- Incubator - Invention / business creation, individual entrepreneurs, joint ventures
- Network - Leveraging the power of the Fab Lab network: multi-site invention, production, distribution.

During the Fab7 discussions in 2011 two more types were identified:

- Attraction - The Fab Lab as a "touristic" attraction.
- Human resources - The Fab Lab as source of consultants etc.

The authors stressed that these models are not mutually exclusive. In fact all Fab Labs studied had more than one underlying business model at the same time.

In general, all Fab labs follow a life cycle consisting of the following stages: setting-up, running, migration to next cycle of life, e.g. fostering new businesses.

2. Survey

Surveying: Fab Labs life cycle stage, underlying business models, and key activities.

The participants of the workshop made a short assessment of their own Fab Lab:

- The stage of the life cycle, the Fab Lab is in.
- The most relevant activities (services) the Fab Labs are offering and their underlying business model.
- Any burning questions the Fab Lab have and where tips and advice from their peers is welcomed.

The results of this assessment are presented in the following paragraphs.

3. Setting-up a Fab Lab

Life cycle stage 1: setting-up a Fab Lab – Beno Juarez

The workshop continued with a presentation on setting-up a Fab Lab. As a case Fab Lab Lima (Peru) was used. There a workgroup first investigated the potentials and restrictions for setting-up a Fab Lab in Lima. They studied conceptual models, digital models and hardware models, over and again. They planned partially overlapping stages of implementing, operating and self-sustaining. Two group members went to Barcelona for a year to learn the ins and outs of managing a Fab Lab and to make almost anything (Fab Academy). Once back in Lima, they started to build their Fab Lab, organization, software and hardware.

The survey showed that the participants represented 10 Fab Labs in set-up stage, 3 in running stage (not in picture) and 0 in the "fostering new businesses" stage.

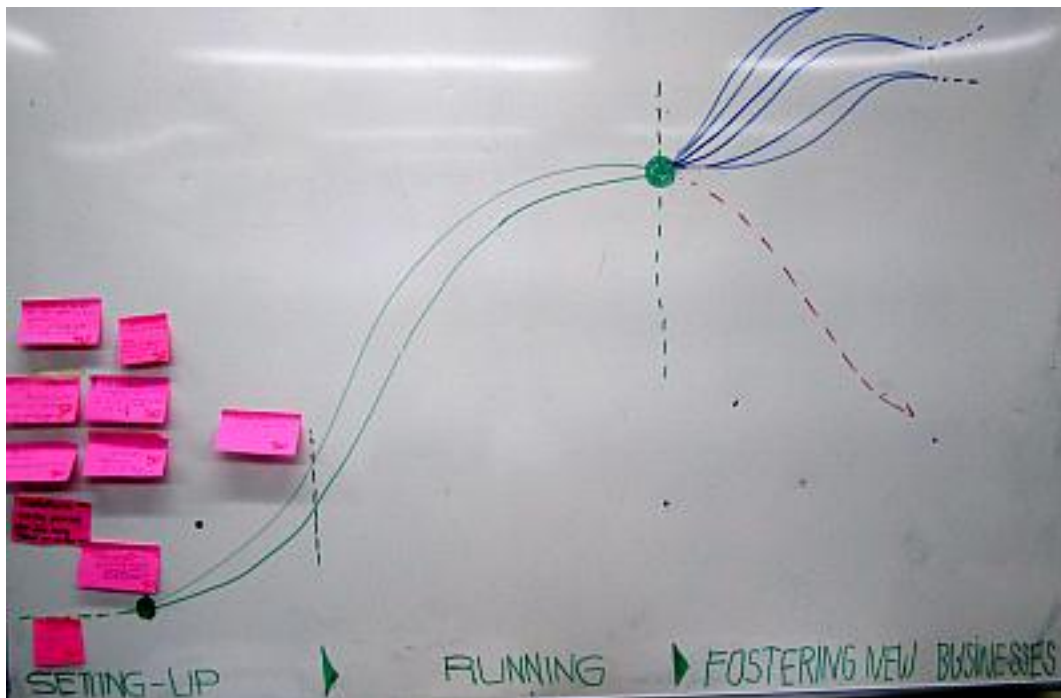


Figure - Fab Lab life cycle, stickers for Fab Labs represented

The following "burning questions" were formulated by the Fab Labs in set-up stage:

- Are we just asking the question only because we have to?
- Can we directly compete with shapeways, Ponoko, Hackerspace, etc.?
- Does sustainability & being open to public really compatible?
- How do you communicate the value of your FabLab?
- Is a corporately sponsored FabLab a Good idea?
- Sustainable business models

- What are the typical facilities needed for start-up?
- What does having "FabLab" over our door mean?
- What would be a sustainable business model for a corporately sponsored Fablab?

As time was scarce only few of them could be discussed.

4. Running a Fab Lab

Life cycle stage 2: Running a Fab Lab – Lindi Mophuti.

Next, the focus was on running a Fab Lab. Experiences from South Africa taught us the importance of clear objectives, attention for staff, activities alligned with objectives and staff characteristics, and the common pitfalls: too little attention for Advocacy, Marketing, Smart partnerships, Sustainability (i.e. funding), Monitoring & Evaluation.

There was only one "burning question" from a Fab L:ab in this stage:

- What is the best way to get non specialized Community members into the lab?

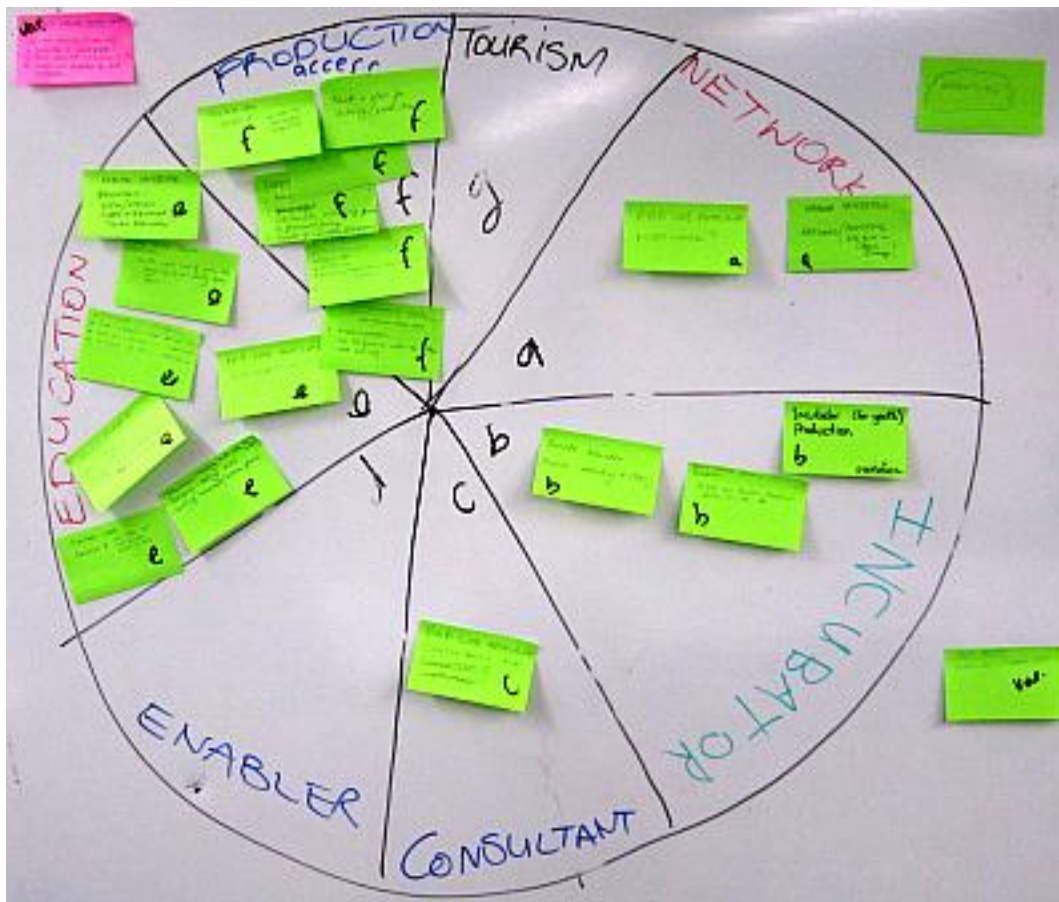
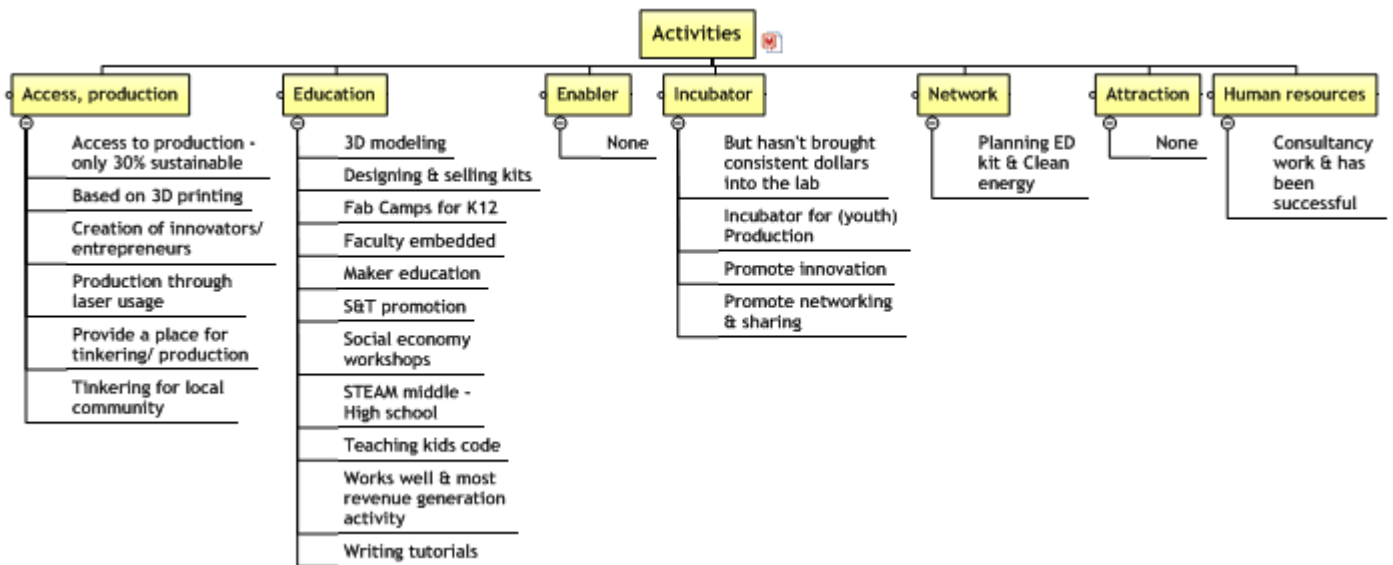


Figure - Business models and activities

The survey showed that although most Fab Labs were in their setting-up stage, they nevertheless could list their activities and relate them to the business models presented.



5. Fostering new businesses

Life cycle stage 3 - Fostering new business – Victor Freundts.

A presentation followed with a series of examples of business opportunities originating from Fab Lab prototypes. It continued with a series of websites to support new businesses, like:

- FaceMe! - design, make, play
- Goteo - open projects - <http://www.goteo.org>
- idea-me - <http://idea.me>
- Kickstarter - for financial support - <http://www.kickstarter.com>
- Loftwork
- MIT 100k \$ - where MENS meets MANUS - <http://mit100k.org>
- Nxtplabs.com - helps starters grow faster - <http://www.nextplabs.com>
- Startup Chile - <http://www.startupchili.org>
- WAYRA - We Accelerate Your Ideas - <http://wayra.org>

The discussion that followed concentrated on Fab Lab "competitors" like Maker Space (mainly hardware) and Hacker Space (mainly software). The available time only permitted a quick treatment. Anyway, it became clear that main advantages of Fab Labs are:

- Democratise Access

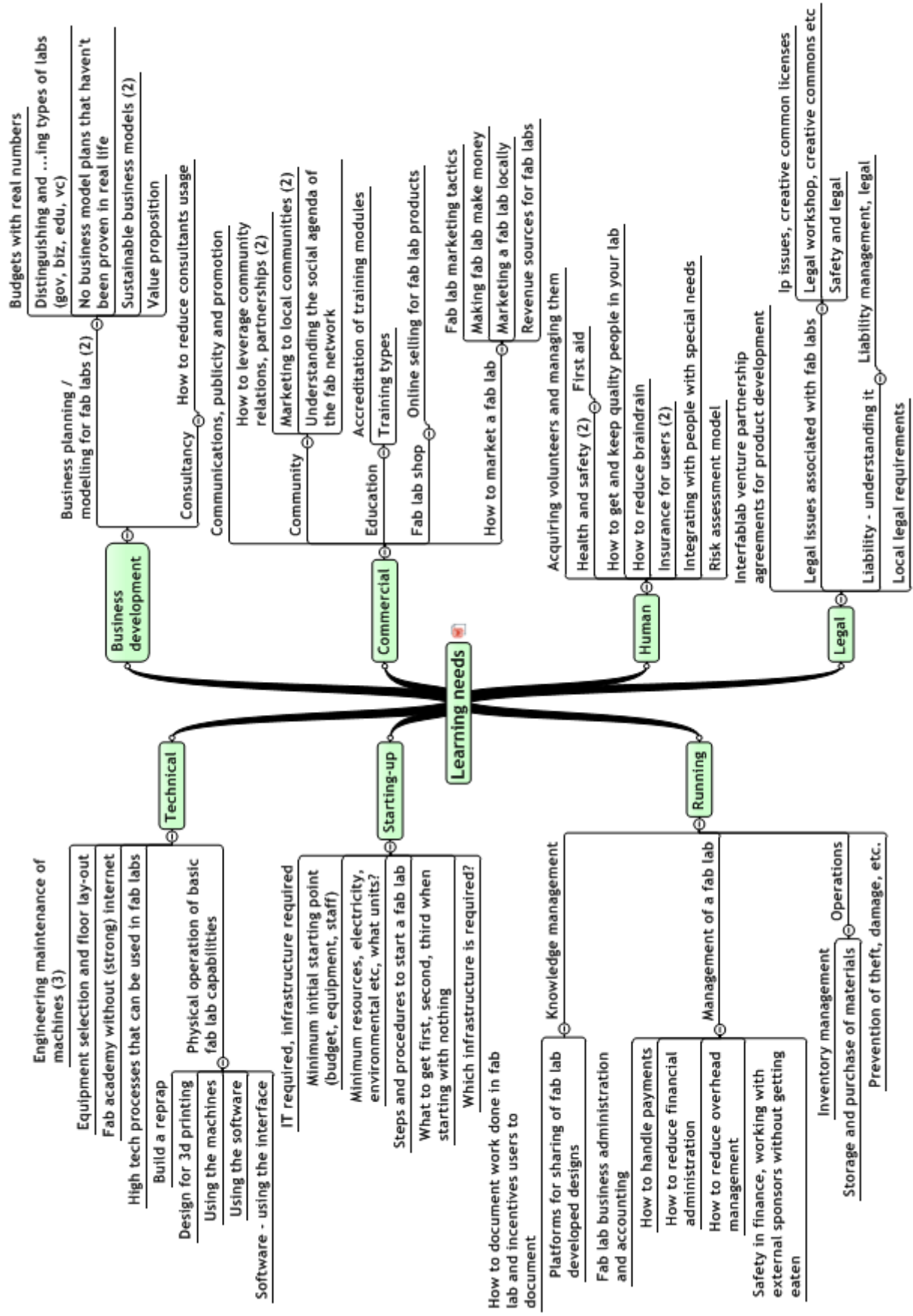
- Diversity
- Global Community
- Global Conference
- Loosely standardised
- No legal brand
- Social agenda

6. Course design for follow-up

Identifying the learning needs of the participants, in other words which one day courses would be appreciated for follow-up?

To conclude the participants formulated their learning needs. Suppose you received seven free vouchers for seven one day training programs. For which training programs would you like to use your vouchers?

The participants generated 72 learning needs. To keep the list manageable, we combined the doubles and clustered them into categories. The figure below shows the result.



Evaluation



The participants wrote a short evaluation on what they liked about this workshop, what could be improved and other comments. The Wordle Infographic shows the results of what was appreciated.

References

Slides used during the workshop

- **Introduction (Pieter van der Hijden)** - [Slide 9 of Sustainable Fab Labs; John Boeck & Peter Troxler; Lima, Peru, 2011](#)
- **Setting-up a Fab Lab (Beno Juarez)** - [Fab Lab LIMA report, 2010](#)
- **Running a Fab Lab (Lindi Mophuti)** - [Running Fab Labs; Lindi Mophuti, 2012](#)
- **Fostering new businesses (Victor Freundt)** - [Fostering new businesses; Victor Freundt, 2012](#)

Other

- Business model generation; Alexander Osterwalder et al.; self published; 2009; available in various languages; [www.businessmodelgeneration.com](http://businessmodelgeneration.com); free preview 72 pages: http://businessmodelgeneration.com/downloads/businessmodelgeneration_preview.pdf.
- Digital fabrication Initial Planning Guide, Digital fabrication Introduction Guide, Digital fabrication Instruction Guide; US Fab Lab Network; <http://usfln.org>.
- [Fab Academy; Pilot program "How to manage a Fab Lab"](#); Klaas Hernamdt et al.; Waag Society, Amsterdam, 2012.

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