

DesigningOpenInnovation.04

Metadesign

Massimo Menichinelli
massimo.menichinelli@aalto.fi
[@openp2pdesign](https://twitter.com/openp2pdesign)
<http://www.slideshare.net/openp2pdesign>



12.03.2013



Aalto University

01.

Metadesign: designing the design processes and tools

What can we do for Open Design projects?

Metadesign is the design of the design tools, processes and systems

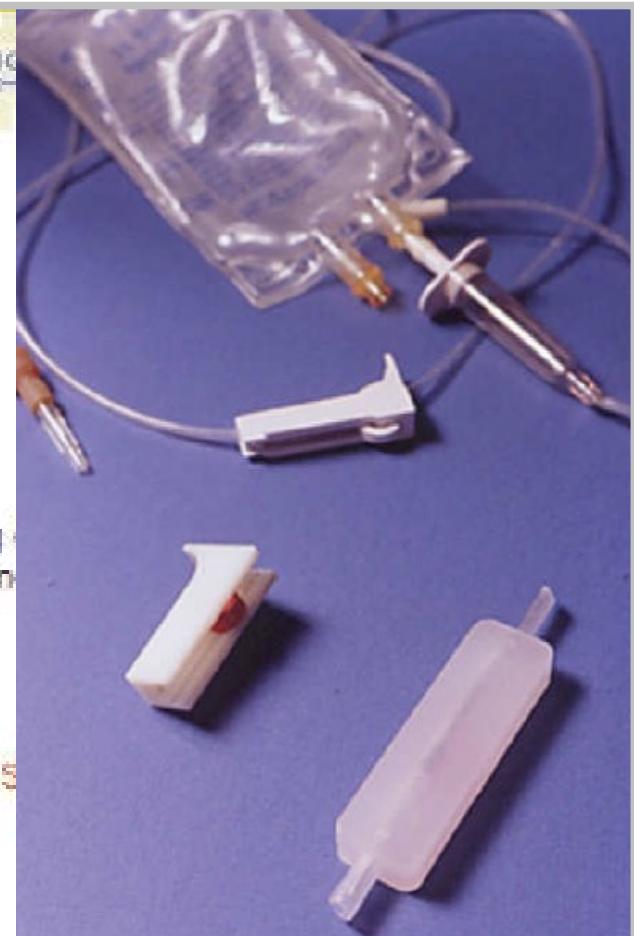
- * research and share **design knowledge**
 - * research and share **business models**
 - * research and share **financial and environmental sustainability**
 - * design and share **design tools**
 - * design and share **design processes**
 - * facilitate **design & manufacturing & end-of-life systems**
 - * facilitate the **distributed creativity**
-

Designing Open Collaborative projects: Thinkcycle



The screenshot shows the homepage of the ThinkCycle website. At the top, there's a navigation bar with links for "HOME" and "TOPIC". Below the navigation is a large logo featuring a stylized orange and yellow swirl design next to the text "ThinkCycle" and "Open Collaborative Design". Below the logo, there's a message "May 4, 2005 : Login to ThinkCycle" and a "SoapBox: 1 New Rant Today". The main content area has a section titled "About ThinkCycle" with a brief description: "ThinkCycle is an academic, non-profit initiative engaged in supporting... of open-source design innovation, with ongoing collaboration among in...". Below this is a section titled "Why Open Source?" with a bulleted list:

- Key Article: Cathedral and the Bazaar by Eric Raymond
- Software Movements: Free Software Movement and the Open S...
- Research: Open Source Research Community (MIT)



First example: a platform and supply chain and social system for Open Design projects.

Source: <http://www.thinkcycle.org> (now closed) <http://web.media.mit.edu/~nitin/thesis/>

P2P Service Design: Open Health (Design Council)

A photograph of five women outdoors in a park-like setting. One woman in the foreground, wearing a maroon turtleneck, holds a wooden stick and a grey cloth. A digital interface overlay is positioned in the lower right corner, featuring a red background with white text that reads "New rewards this month". Below this text are several small images: a person working out, a landscape, a person running on a track, and a person on a bicycle. To the right of these images is a blue sidebar with text and icons.

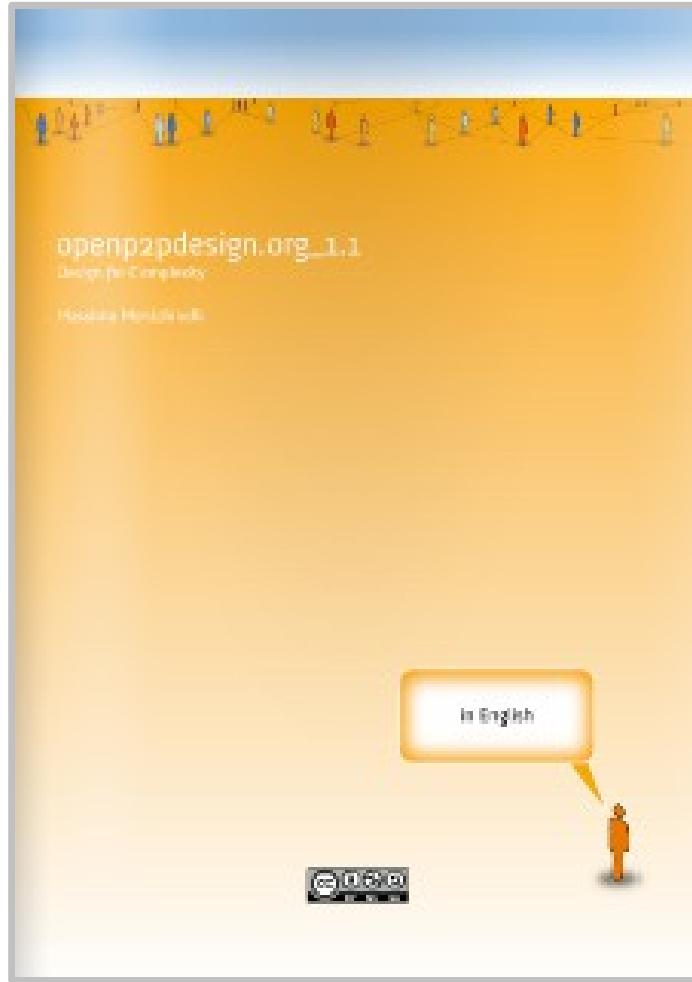
Motivation: Celebrating commitment

Self-set goals, self-selected rewards

Second example: first peer-to-peer public services by design (2004-2006).

Source: <http://www.designcouncil.info/mt/RED/> (now inactive) <http://www.participle.net/>

Open P2P Design: Metadesign for Open projects



A short summary of a research about developing metadesign initiatives for Open projects.

Source: <http://www.issuu.com/openp2pdesign> <http://www.scribd.com/openp2pdesign>

Where should we use Open P2P Design?

- * for community-centered projects
- * for community-based services / businesses
- * for projects that are distributed in a territory / locality
- * for complex projects
- * for participatory processes
- * for open processes and projects

In Open Design, Open Innovation, Open Business, Open Government...

Why Open P2P Design?

- * mass-collaboration/crowdsourcing --> change in the role of designers
 - * being subjected to mass collaboration --> designing it
 - * communities generate innovations --> more opportunities for designers
- > designers can be **enablers / facilitators** of distributed creativity
- > designers still have more **knowledge and expertise**, just now they are part of collaborative networks
- > designers could even **adopt** open strategies
-

And the Design research and practice is changing

Design by author -->

Design by marketing -->

User-centred Design →

User-experience Design →

Activity-centred Design →

Co-Design --> ...



What does Open P2P Design design?

Activity Theory +

Service Design (+ Activity Theory) +

Action Planning (Urbanism) +

Social Network Analysis +

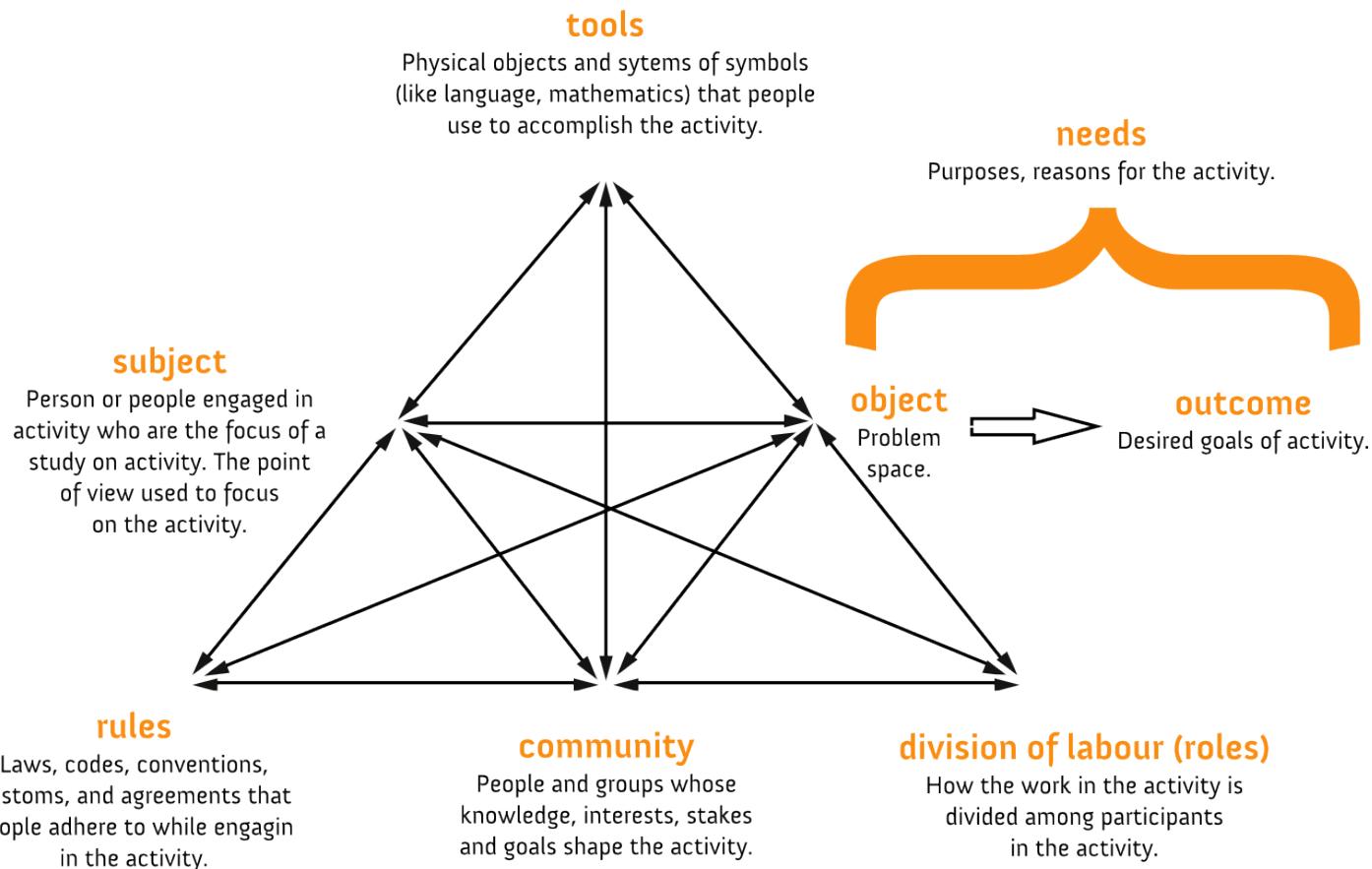
...



Activity



Activity Theory



Activity theory is an approach in psychology that aims to understand individual / social entities, with an analysis of the genesis, structure, processes of their activities.

Metadesign with Open P2P Design ?

Analysis +

Concept design +

Prototyping +

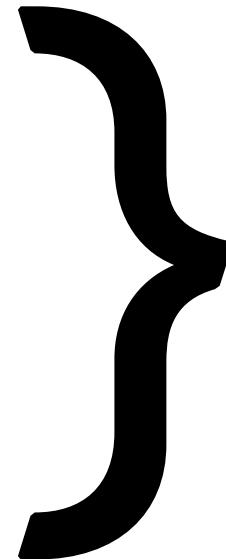
Manufacturing +

Distribution +

Support +

End of life +

...



Design process:
A systemic **activity**
comprising set of
actions (sub-
activities), with
their own tools,
roles, rules

What about the source code for Open P2P Design?

Participation matrix +

Activity analysis +

Social Network Analysis +

Storyboard +

System map +

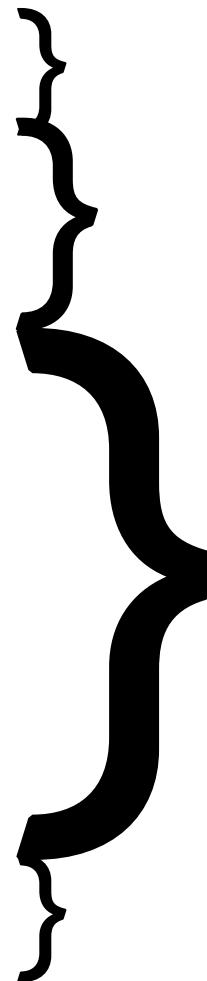
Service blueprint +

Motivation matrix +

Activity description +

...

Design project



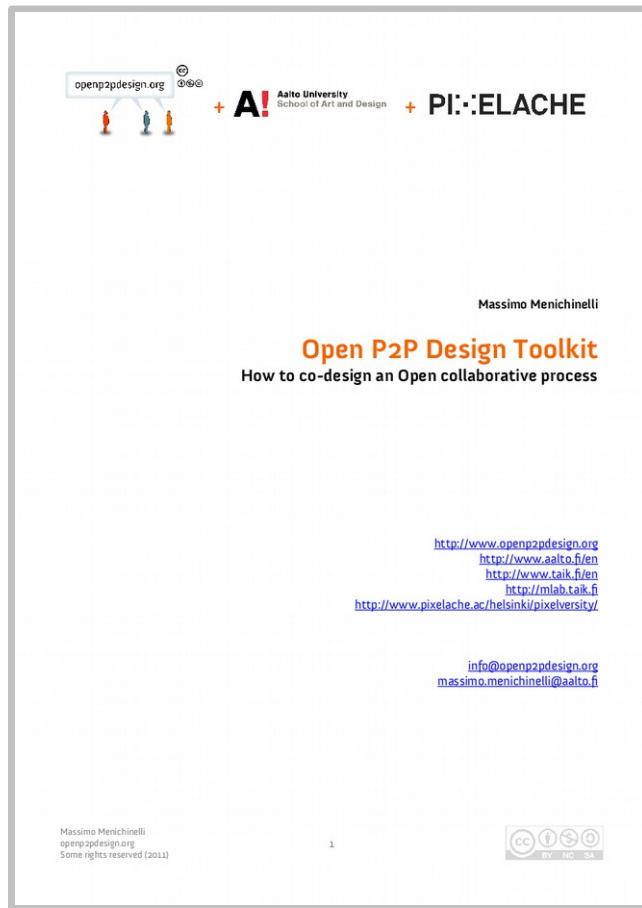
Process Design

Community analysis

Activity Design

Open Design

A toolkit for the Open P2P Design methodology



A simple, free and open paper toolkit for brainstorming metadesign projects for Open initiatives.

Source: <http://www.issuu.com/openp2pdesign> <http://www.scribd.com/openp2pdesign>

A toolkit for the Open P2P Design methodology

The screenshot shows the homepage of openmetadesign.org. The header features the title "Open MetaDesign" and navigation links for "ABOUT + DOWNLOAD" and a Twitter icon. The main content area describes the toolkit as an "open and digital toolkit" for developing metadesign. It highlights four features with icons and descriptions: "Open Source" (Creative Commons logo), "Digital and paper prototyping" (pencil icon), "Ready for GitHub" (GitHub logo), and "Co-design it with us" (speech bubble icon). Each feature includes a "Read more..." link.

An **open** and **digital toolkit** for developing the **metadesign** (the design of the design process and system) of the **collaboration and community** of Open Design projects.

Open Source

The toolkit is Open Source, contains Open Source elements and is released under a Creative Commons Attribution - Share-a-like license.

+ *Read more...*

Digital and paper prototyping

The toolkit is available in a vector format that can be both printed for sketching and edited digitally directly through any vector software, including the open source Inkscape.

+ *Read more...*

Ready for GitHub

The toolkit is already present on GitHub, and it has been developed especially for the GitHub platform, where you can host your Open projects for free.

+ *Read more...*

Co-design it with us

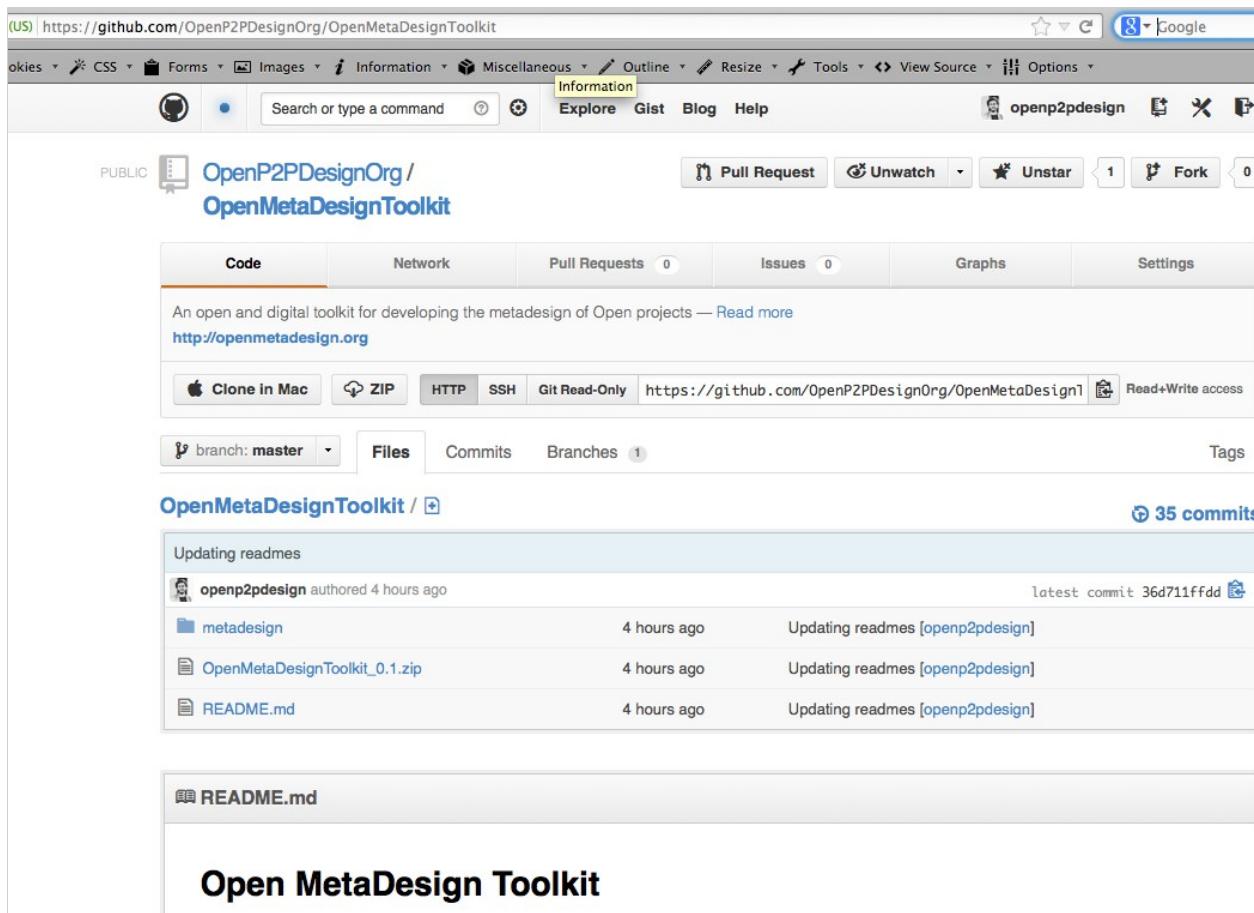
It would be great to have your feedback on the toolkit, and maybe your participation in further developing it! We are developing it in an open way!

+ *Read more...*

A simple, free and open paper toolkit for brainstorming metadesign projects for Open initiatives.

Source: <http://openmetadesign.org>

A toolkit for the Open P2P Design methodology



A simple, free and open paper toolkit for brainstorming metadesign projects for Open initiatives.

Source: <https://github.com/OpenP2PDesignOrg/OpenMetaDesignToolkit>

Process: Activities and participation

	Step 01:	Step 2:	Step 03:	Step 04:	Step 05:	Step 06:	Step 07:
None							
Indirect							
Consultative							
Shared control							
Full control							

A simple way for designing the level of participation in the different steps of the design process.

Source: Hamdi, N., & Goethert, R. (1997). Action Planning for Cities: A Guide to Community Practice. Academy Press

Open P2P Design Process

	Open P2P Design proposal								
	Analysis	Concept Design	Communication of the concept	Co-Design / Prototyping	Manufacturing	Distribution	Support	End of life	
None									
Indirect									
Consultative									
Shared control									
Full control									



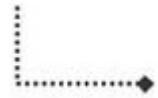
Flows: System Map

The System Map is very useful to visualize and design **interactions** as **flows** between people. Its elements are:

- * material flows



- * information flows



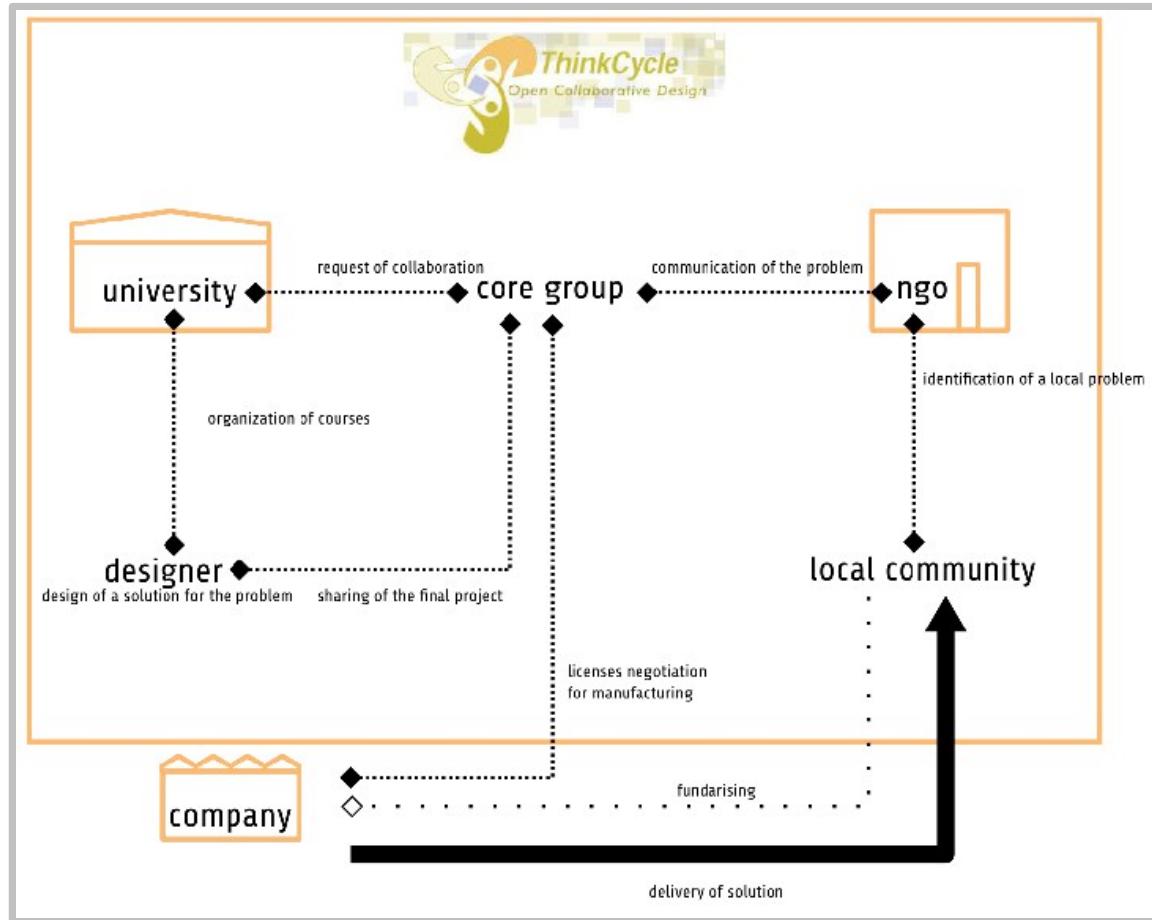
- * financial flows



- + roles

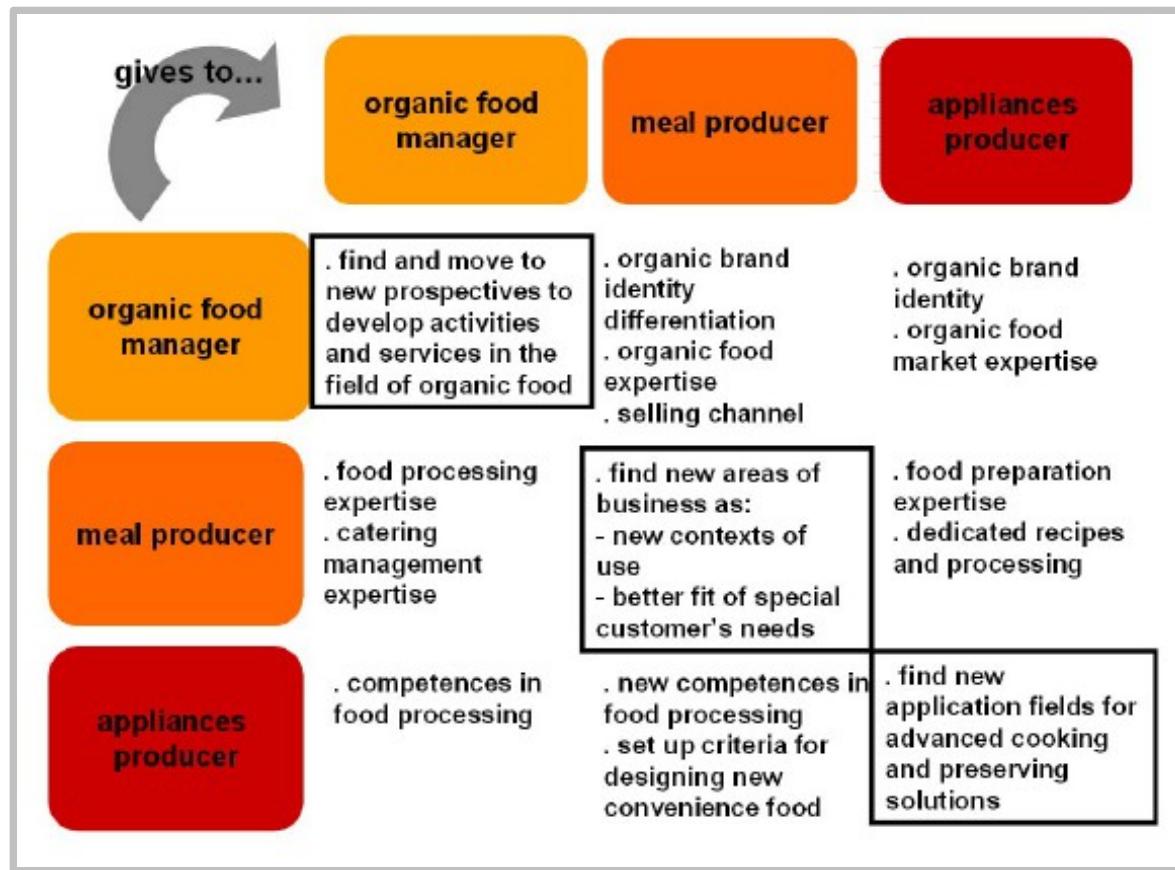
- + border of the system

System Map



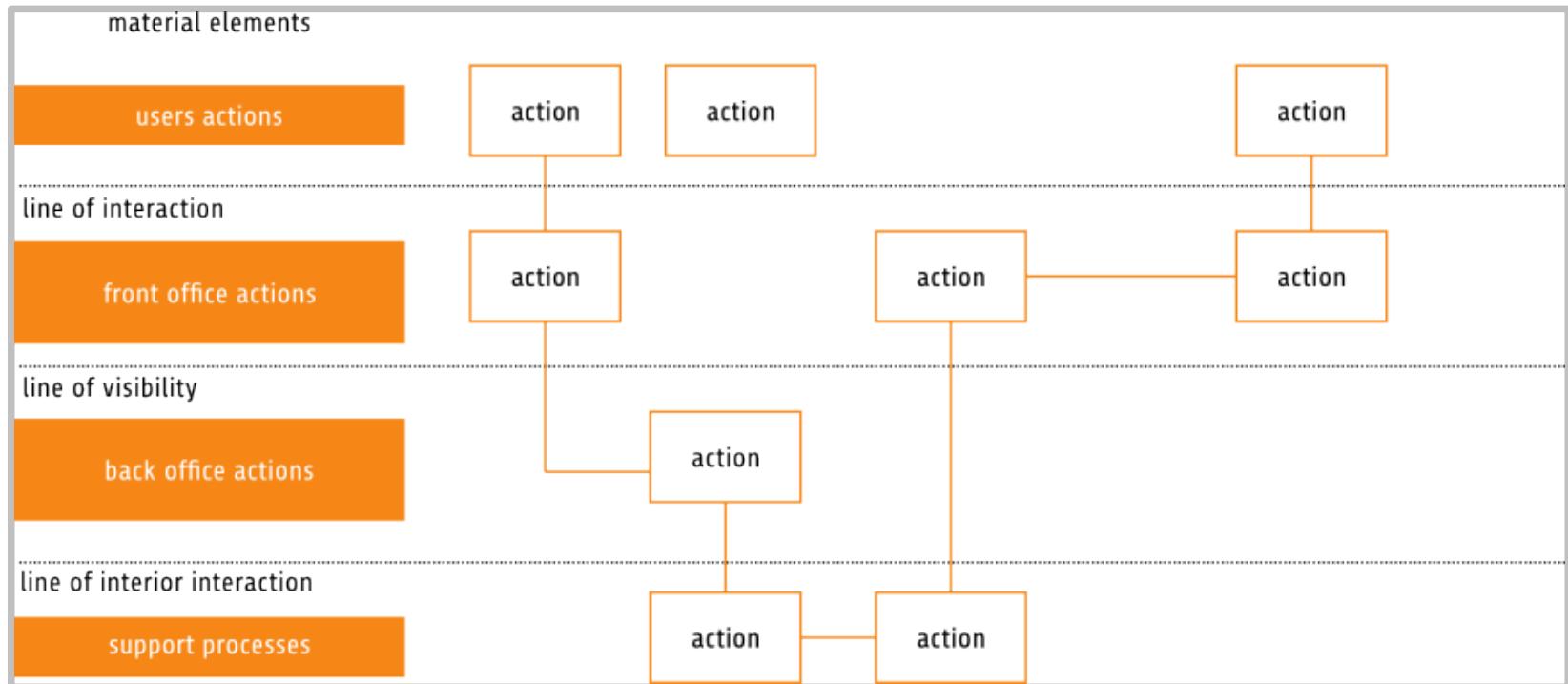
The flows of money, information and material resources in the Thinkcycle project.

Interactions: Motivation Matrix



The Motivation Matrix is useful for analysing, designing, visualizing interactions as motivations between the roles of the Open Design activity.

Blueprint



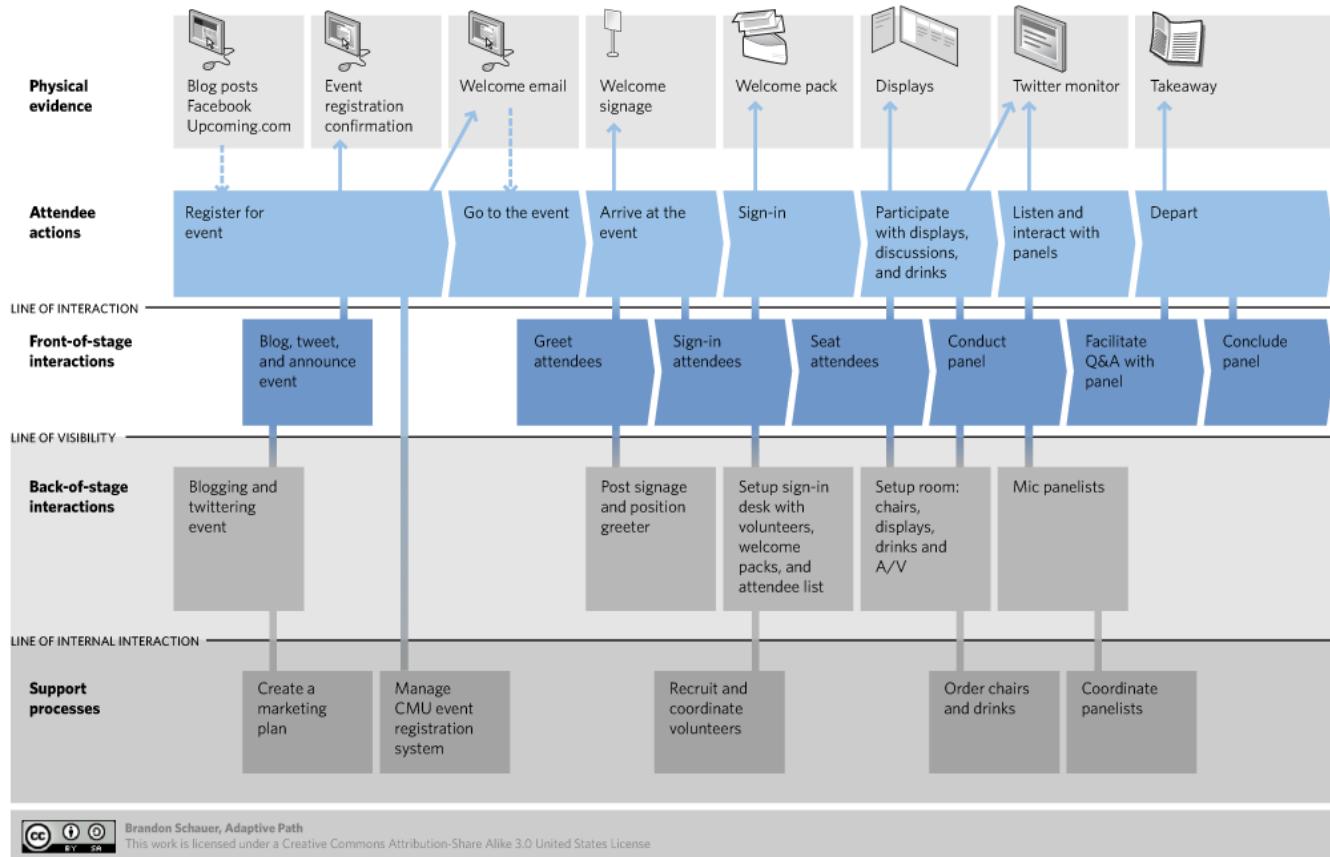
Service Blueprints are used in order to design and visualize processes and specifications of the Activity when it happens inside an organization or place.

Source: <http://www.face.ubiobio.cl/webfile/media/42/version%20-8-1/mariaperez.pdf>
<http://www.servicedesigntools.org/tools/35>

Blueprint

Service Blueprint for Seeing Tomorrow's Services Panel

find out more: <http://upcoming.yahoo.com/event/1768041>

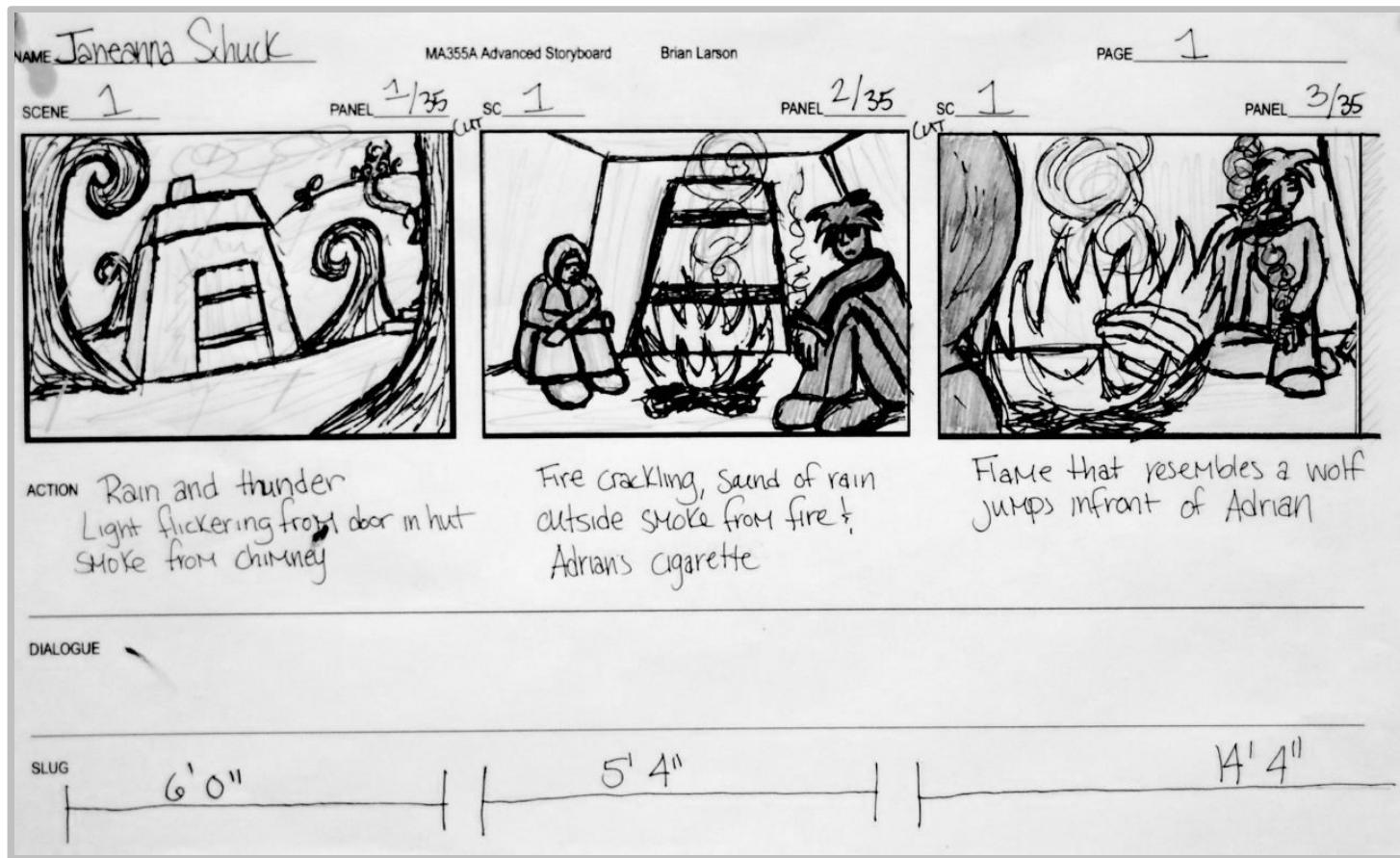


Service Blueprints are used in order to design and visualize processes and specifications of the Activity when it happens inside an organization or place.

Source: <http://www.face.ubiobio.cl/webfile/media/42/version%20-8-1/mariaperez.pdf>

<http://www.servicedesigntools.org/tools/35>

Storyboard



Storyboards are a series of illustrations or images displayed in sequence. They enable analysing, designing, visualizing interactions through time as a story.

Source: <http://www.servicedesigntools.org/tools/13> <http://en.wikipedia.org/wiki/Storyboard>
<http://www.flickr.com/photos/ninga/473316247/>



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02.

Example 01: A workshop in Singapore



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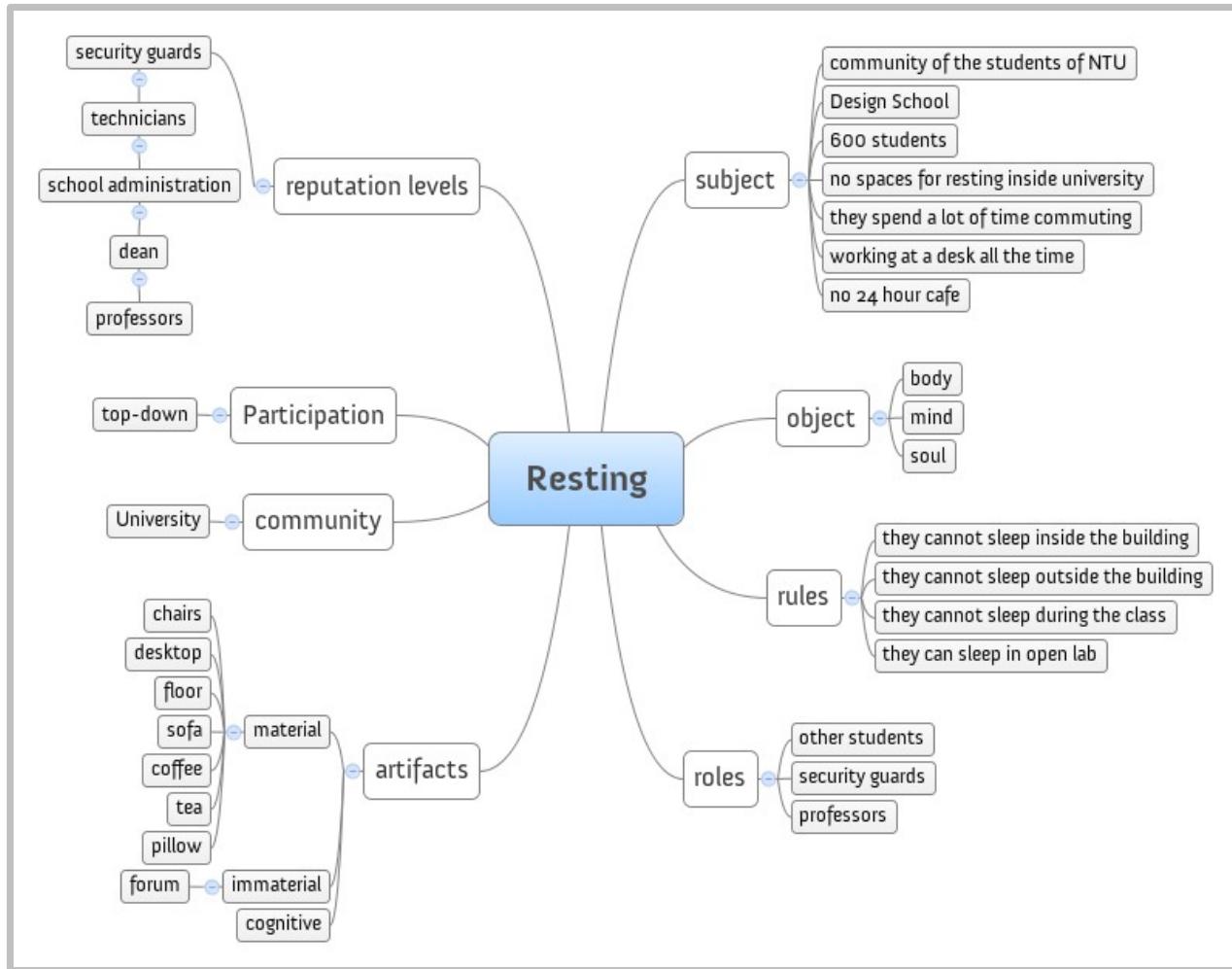
Open P2P Design Workshop, Singapore, NTU



With Roger Pitiot. 25-27 November 2009, NTU University
Singapore Design Festival

Source: <http://www.openp2pdesign.org/projects/past-projects/open-p2p-design-workshop-seoul-singapore-2009/>

01. Community Analysis



Analysis of the community of students at NTU and
of their activity we want to solve.

02. Participation Matrix

	analysis	organizing the design process	concept design	meeting	Co-design	meeting	Co-design	manufacturing	distribution	end of life
none										
indirect										
consultative										
shared control										
full control										

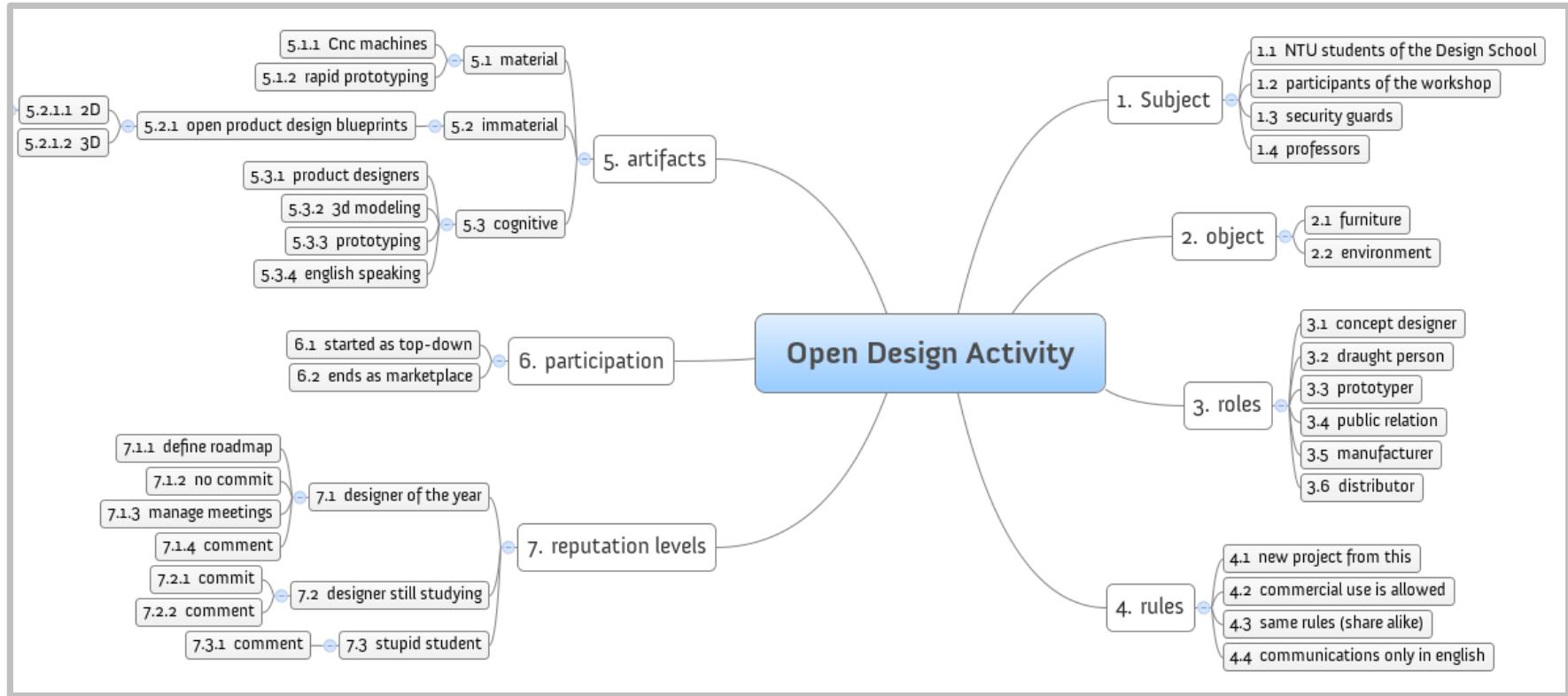
“First version of the Participation Matrix, we do everything by ourselves”

	analysis	organizing the design process	concept design	meeting	Co-design	manufacturing	distribution	end of life
none								
indirect								
consultative								
shared control								
full control								

“Second version, now the students manufacture and manage the product, we just help them distributing it”

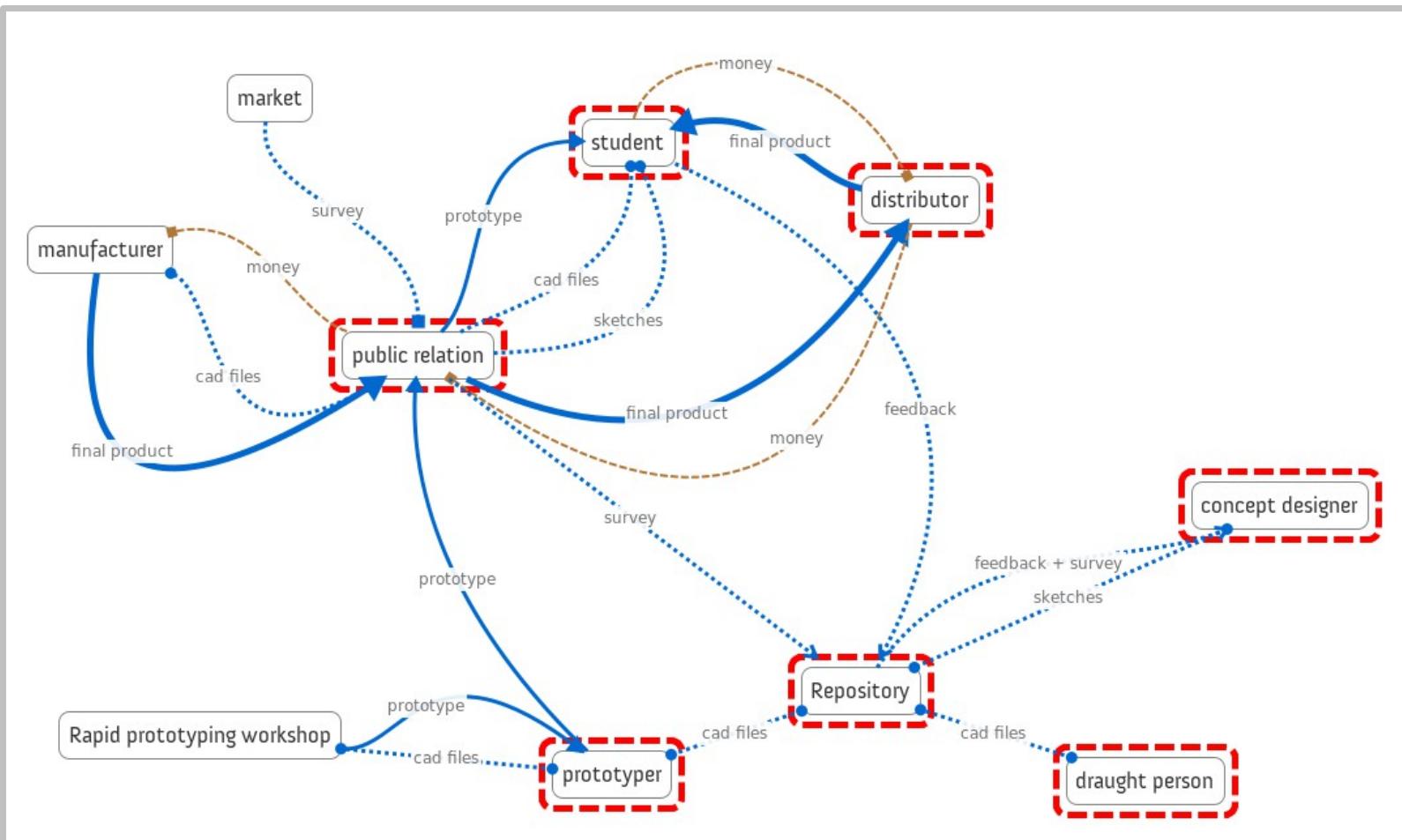
Process design (with a participation matrix): two revisions.

03. Open Design Activity



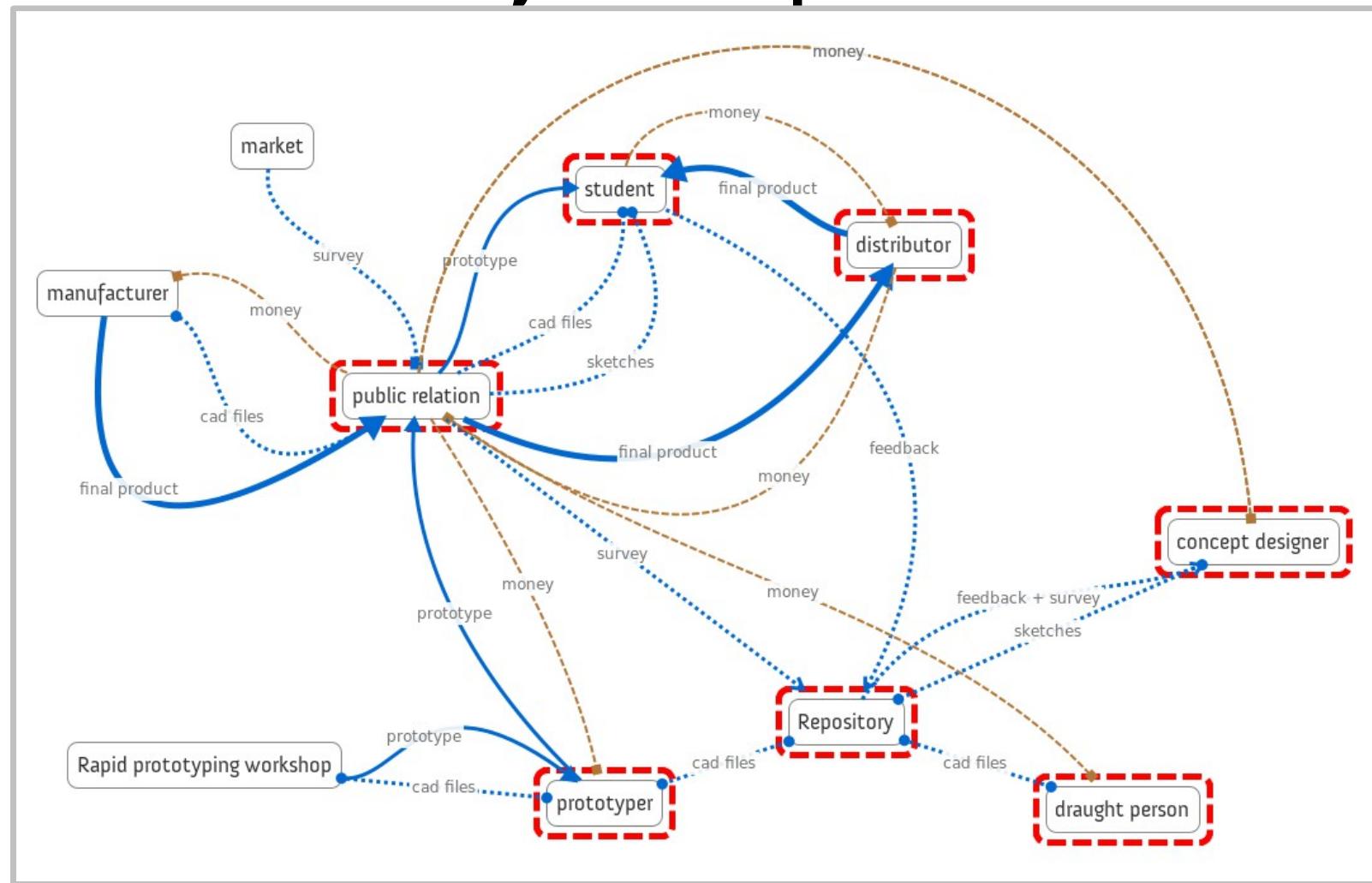
Design of the Open Design Activity, based on the Activity Theory System.

04. System Map rev. 20



“Feedback from students and survey results from customers, now available to read by concept designers.”

04. System Map rev.21



“Everyone gets paid now”

05. Open Design Activity Poster

Now you can have no fear of falling
while you **sleep!**

CC CLAMP

You're invited.
Come join the project!

Now you can have no fear of falling
while you **sleep!**
Fits well with all chairs

CC CLAMP

You're invited.
Come join the project!

Final posters for promoting the Open Design projects,
first version and second modification.



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03.

Example 02:

A workshop in Helsinki

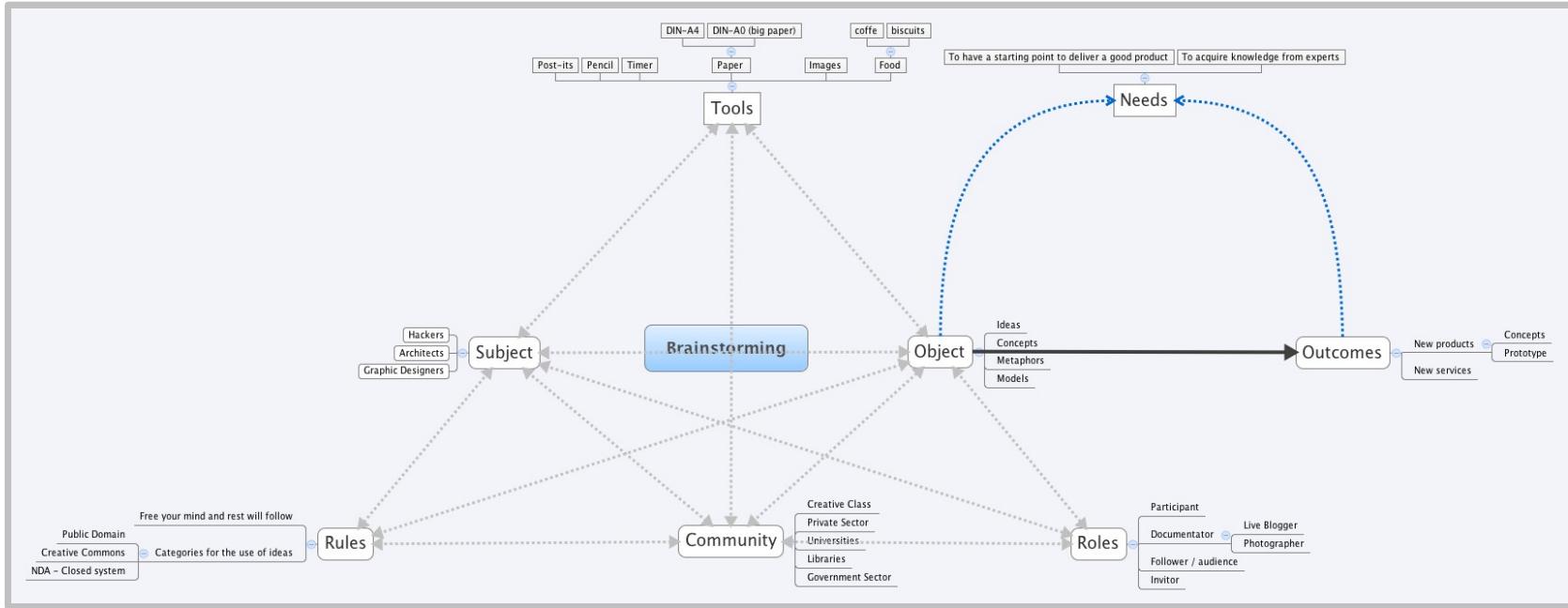
Open P2P Design Workshop, Helsinki, Pixelache



16-24 September 2011, Pixelache

Source: <http://www.pixelache.ac/pixelversity/programme-2011/open-p2p-design/>
<http://workshop.openp2pdesign.org/>

01. Community Activity Analysis



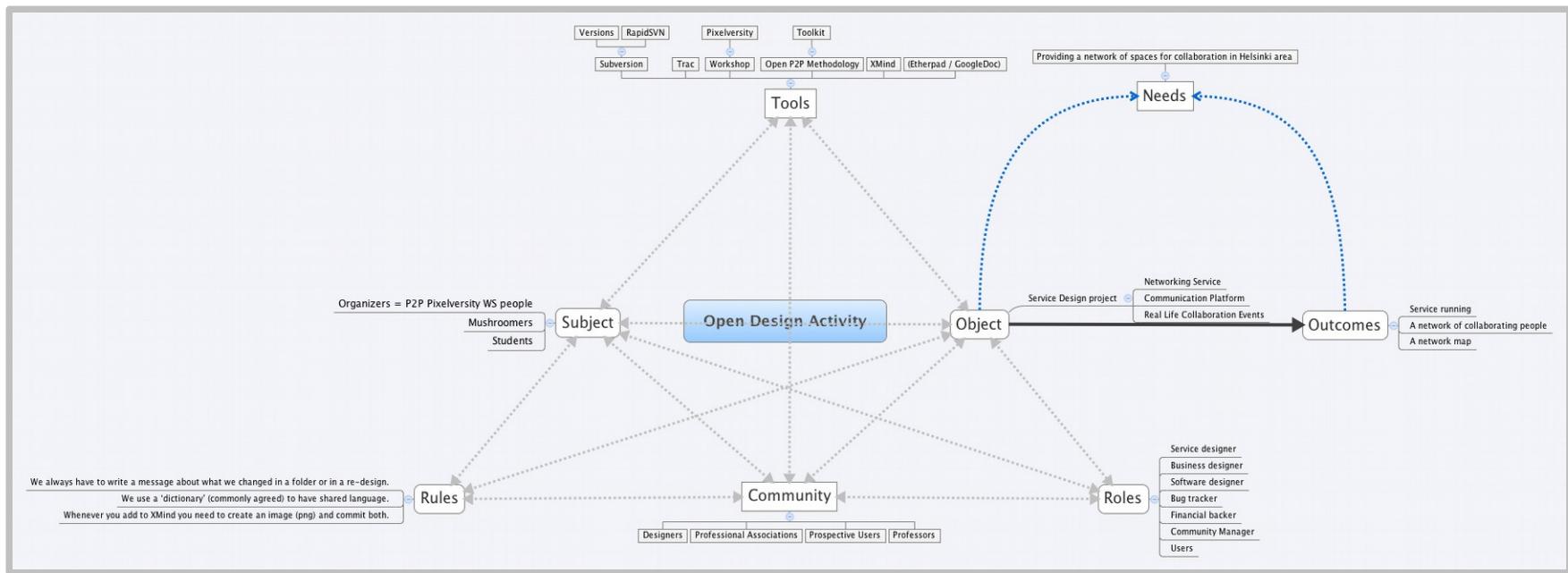
An analysis of the existing activity of the community:
creative working

02. Process Participation Matrix

Levels of participation	Defining the general properties of the project	Process Design	Analysis of the community	Concept of the Open Design Activity	Concept of the Design project and business model
None					
Indirect					
Consultative					
Shared Control					
Full Control					
Identify target market's online platforms of choice and present ideas online	Meeting with the possible community	Prototype in one place	Check if it's working - reflection	Implementing	Prototyping in another place or country

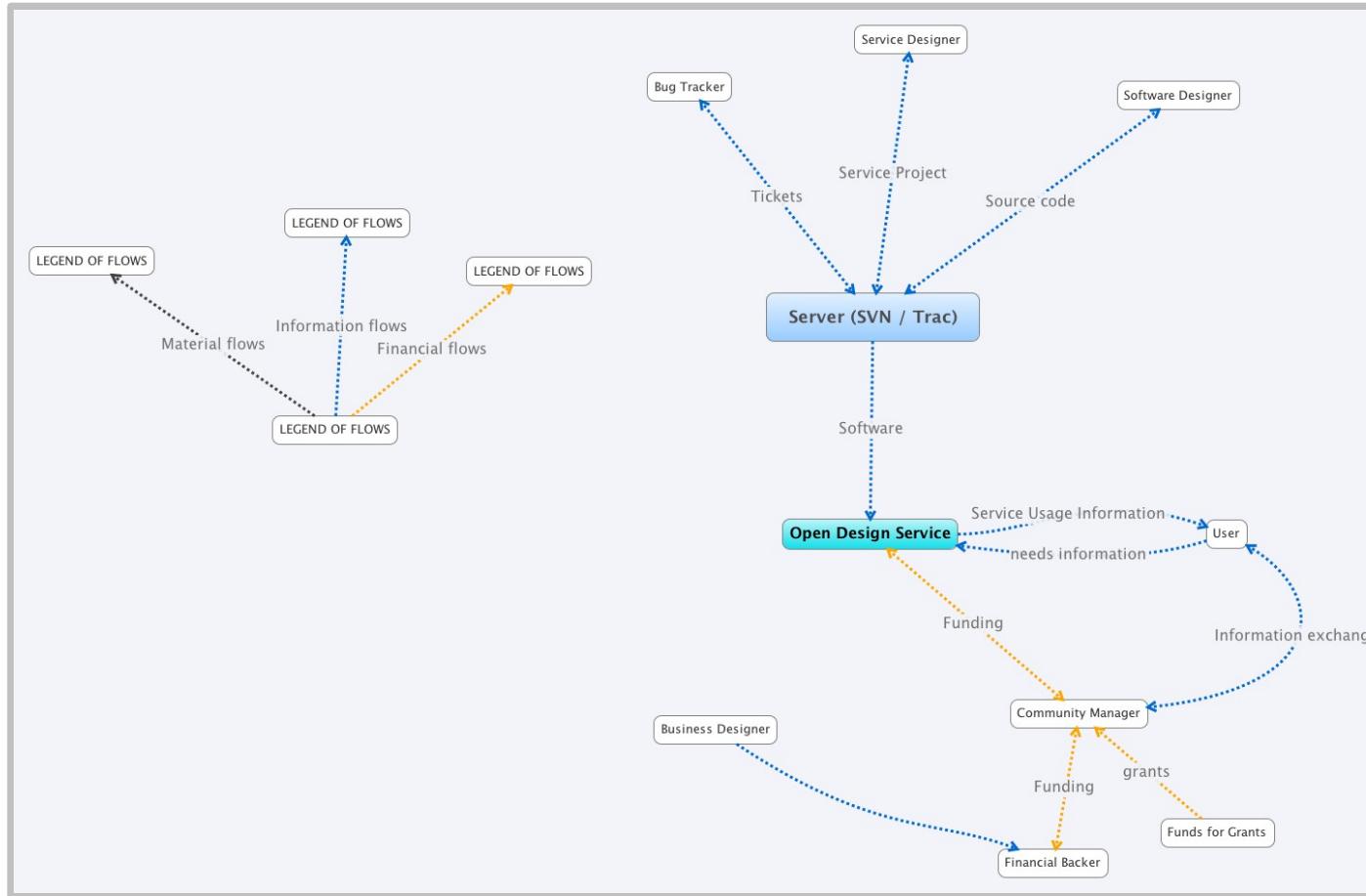
The whole process for developing the project.

03. Open Design Activity



The activity of developing an Open Design project

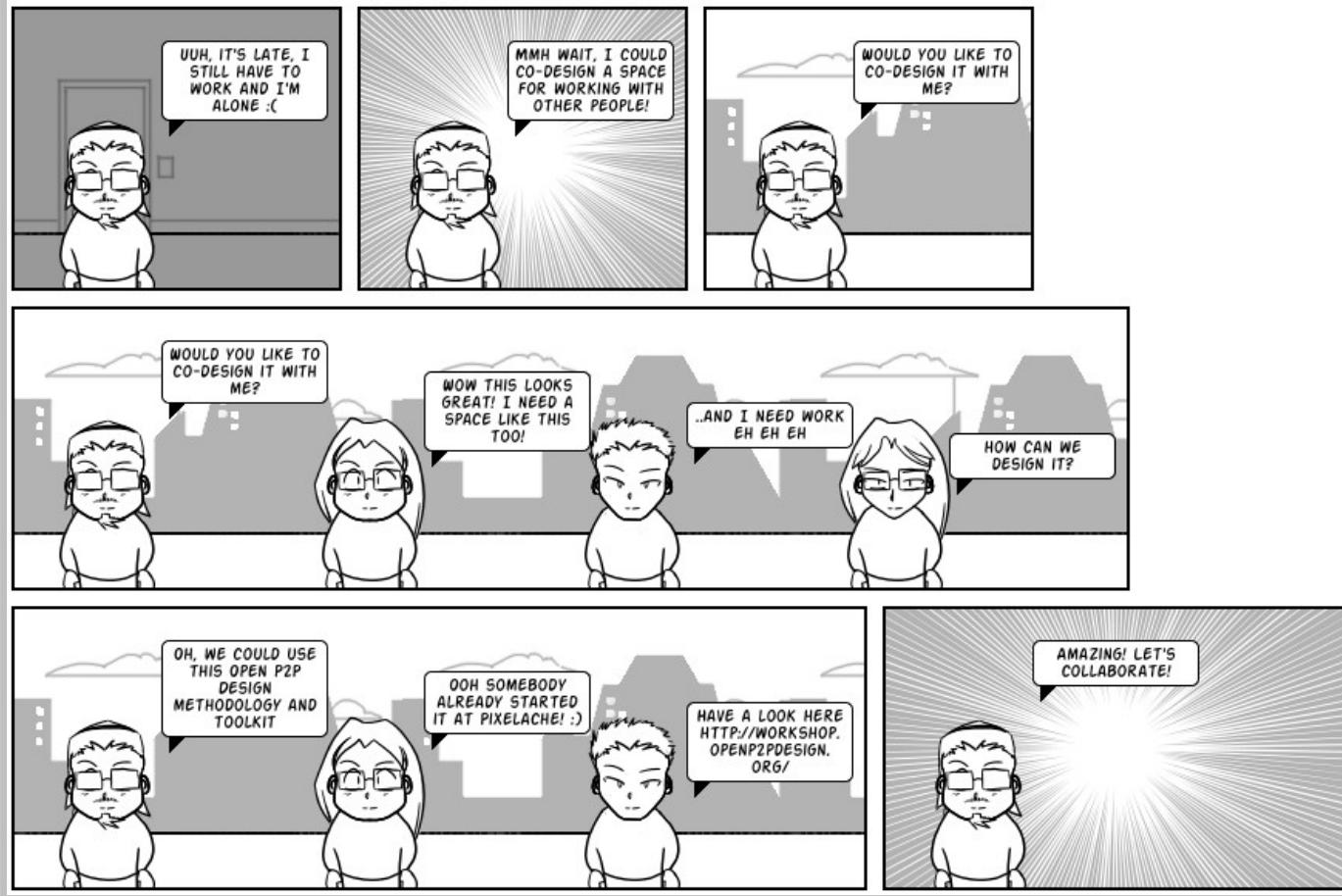
04. Open Design System Map



The flows (information, money, resources) in the development of the Open Design project.

05. Open Design Storyboard

THE STORYBOARD OF THIS OPEN DESIGN ACTIVITY



The development of the Open Design project communicated as a comic.

Storyboard: can be generated with software!

STRIP THIS!
Web. Comic. For real.

« FIRST < PREVIOUS #10 OF 10

FLEXIBLE INSTRUMENTS

ORIGINAL IN ENGLISH IT FR ES DE

COMIC SCRIPT

"Flexible instruments" in english

kesiev is with glass and serious looking down

office panel
kesiev
alessio happy says "Hi kes! Which game you've purchased this weekend?"

another panel
kesiev says "Band hero. For 6.90 euros."
alessio surprised replies "A guitar hero game for cheap! Cool!"
kesiev says "mh."

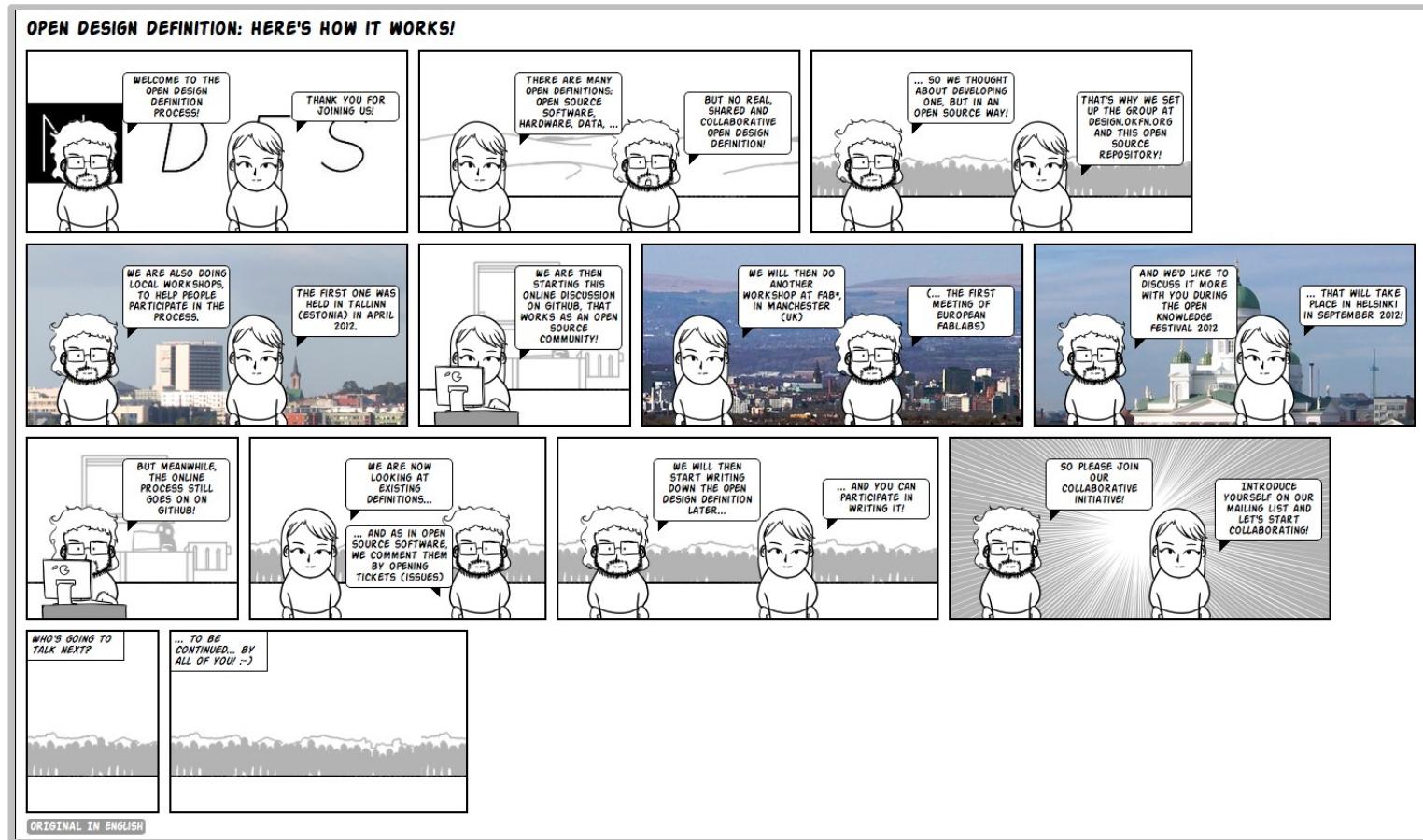
dark confusion panel
kesiev looking right with ghostly head says "You actually play electric trumpet in Y.M.C.A."
alessio scary looking left
kesiev says "and piano. sometime. With the guitar."

office panel
kesiev says "pay me another coffee and is your."
alessio scary looking down replies "I'm actually homeless... and... my children are starving..."
alessio replies to self "I hope you understand..."

For generating storyboards more easily, a javascript app that turns a script into a comic.

Source: <http://www.kesiev.com/striphis/>

Storyboard: can be generated with software!



For generating storyboards more easily, a javascript app that turns a script into a comic.

Source: <https://github.com/OpenDesign-WorkingGroup/Open-Design-Definition/tree/master/meta>



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04.

Toolkit: Open MetaDesign

Open MetaDesign_{0.1} Participation Matrix

Participation for each step	Step / Activity											
None												
Indirect												
Consultative												
Shared Control												
Full Control												

Participation for each step	Step / Activity											
None												
Indirect												
Consultative												
Shared Control												
Full Control												

Project: Name of the project

Link: <http://www.google.com>

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Designed by: Name Surname -

Designed for: Community / Place / Organization



Open MetaDesign_{0.1} Community Activity Analysis

Activity:

Add here a description of the main activity of the community that we want to study.

Tools:

Add here physical objects and systems of symbols (like language, knowledge, expertise) that the subject needs to use in order to carry out the activity we are analysing.

Needs:

Add here the purposes and reasons for the subject to carry out the activity we are analysing.

Subject:

Add here the person or the people engaged in the activity we are analysing and who are the focus of our analysis. This is the point of view used to focus on the activity.

Object:

Add here the object of the activity we are analysing.

Outcome:

Add here the desired goals of the activity we are analysing.

Rules:

Add here the laws, codes, conventions, customs and agreements that the subject adheres to while engaging in the activity we are analysing.

Community:

Add here the people and groups with whom the subject is interacting in the activity and whose knowledge, interests, stakes and goals shape the activity we are analysing.

Division of labour (roles):

Add here how the work in the activity is divided among the participants in the activity we are analysing.

Project: Name of the project

Link: <http://www.google.com>

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or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.

Designed by: Name Surname -

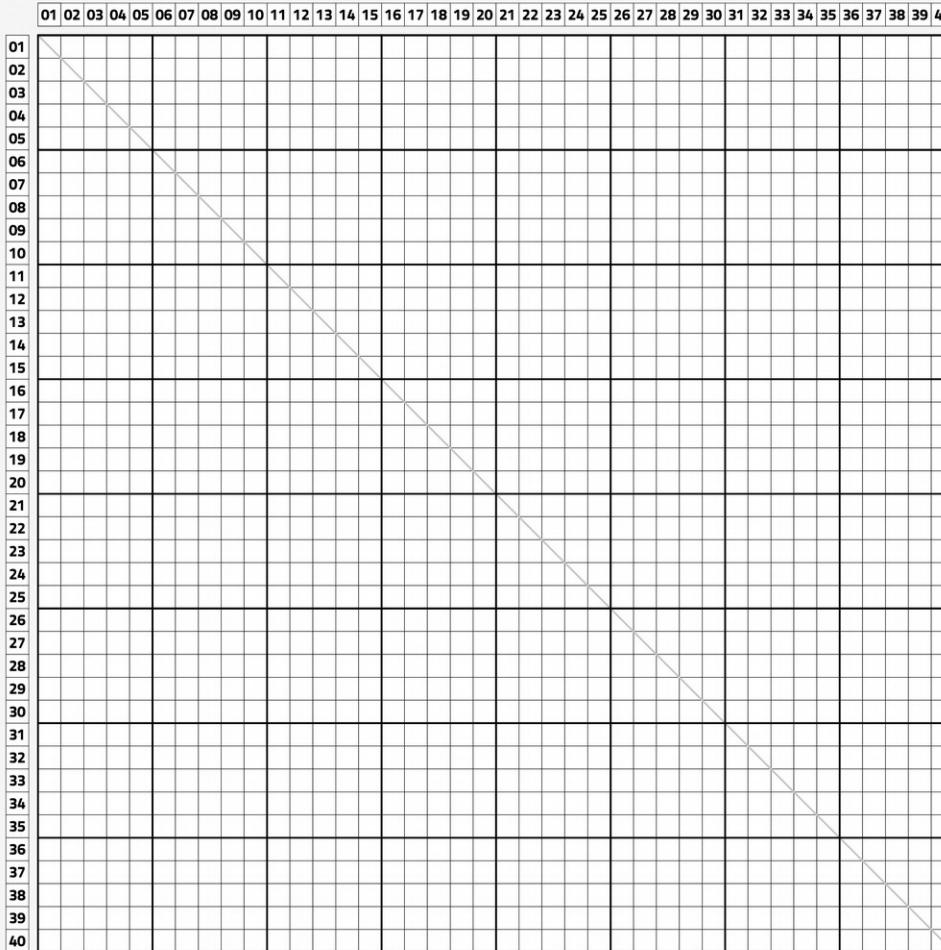
Designed for: Community / Place / Organization



Open MetaDesign_{0.1} Social Network Analysis

Relationship: Relationship

01	Name Surname
02	Name Surname
03	Name Surname
04	Name Surname
05	Name Surname
06	Name Surname
07	Name Surname
08	Name Surname
09	Name Surname
10	Name Surname
11	Name Surname
12	Name Surname
13	Name Surname
14	Name Surname
15	Name Surname
16	Name Surname
17	Name Surname
18	Name Surname
19	Name Surname
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21	Name Surname
22	Name Surname
23	Name Surname
24	Name Surname
25	Name Surname
26	Name Surname
27	Name Surname
28	Name Surname
29	Name Surname
30	Name Surname
31	Name Surname
32	Name Surname
33	Name Surname
34	Name Surname
35	Name Surname
36	Name Surname
37	Name Surname
38	Name Surname
39	Name Surname
40	Name Surname



Project: Name of the project

Link: <http://www.google.com>

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Designed by: Name Surname - ...

Designed for: Community / Place / Organization



Open MetaDesign^{0.1} Motivation Matrix

Project: Name of the project

Link: <http://www.google.com>

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Designed by: Name Surname - ...

Designed for: Community / Place / Organization



Open MetaDesign 0.1

Activity Design

Activity:

Add here a description of the main activity of the community that we want to design and make open and collaborative.

Tools:

Add here physical objects and systems of symbols (like language, knowledge, expertise) that the subject needs to use in order to carry out the activity we are designing.

Needs:

Add here the purposes and reasons for the subject to carry out the activity we are designing.

Subject:

Add here the person or the people engaged in the activity we are designing and who are the focus of our project. This is the point of view used to focus on the activity.

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Add here the object of the activity we are designing.

Outcome:

Add here the desired goals of the activity we are designing.

Rules:

Add here the laws, codes, conventions, customs and agreements that the subject adheres to while engaging in the activity we are designing.

Community:

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Division of labour (roles):

Add here how the work in the activity is divided among the participants in the activity we are designing.

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Designed by: Name Surname -

Designed for: Community / Place / Organization



Open MetaDesign_{0.1} Blueprint

The physical evidence experienced by the participants outside of the core group

The open activity as experienced by the participants outside of the core group, with their actions

The front-office of the open activity: how the core group interacts with the other participants

The back-office of the open activity: how the core group member interacts with each other

The support processes that make the work of the core group possible

Touchpoints

Line of interaction

Line of visibility

Line of internal interaction

Project: Name of the project

Link: <http://www.google.com>

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Designed by: Name Surname - ...

Designed for: Community / Place / Organization



Open MetaDesign 0.1 Business Model Canvas

Key Partners



Who are our Key Partners?
Who are our key suppliers?
Which Key Resources are we acquiring from partners?
Which Key Activities do partners perform?

Add text here...

Key Activities



What Key Activities do our Value Propositions require?
Our Distribution Channels?
Customer Relationships?
Revenue Streams?

Add text here...

Value Propositions



What value do we deliver to the customer?
Which one of our customer's problems are we helping to solve?
What bundles of products and services are we offering to each Customer Segment?
Which customer needs are we satisfying?

Add text here ...

Customer Relationships



What type of relationships do each of our Customer Segments expect us to establish and maintain with them?
Which ones have we established?
How are they integrated with the rest of our business model?
How costly are they?

Add text here ...

Customer Segments



For whom are we creating value?
Who are our most important customers?

Add text here

Key Resources



What Key Resources do our Value propositions require? Our Distribution Channels?
Customer Relationships? Revenue Streams?

Add text here...

Channels



Through which Channels do our Customer Segments want to be reached?
How are we reaching them now?
How are our Channels integrated?
Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer routines?

Add text here ...

Cost Structure

What are the most important costs inherent in our business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?

Add text here ...



Revenue Streams



For what value are our customers really willing to pay? For what do they currently pay?
How are they currently paying? How would they prefer to pay?
How much does each Revenue Stream contribute to the overall revenues?

Add text here ...

Project: Name of the project

Link: <http://www.google.com>

Designed by: Name Surname -

Designed for: Community / Place / Organization

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or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.

Original development of the Business Model Canvas: BusinessModelGeneration.com



Open MetaDesign^{0.1} Storyboard

Add a picture here

Add a picture here

Add a picture here

Add a picture here

Add a description of the picture here by editing this text...

Add a description of the picture here by editing this text...

Add a description of the picture here by editing this text...

Add a description of the picture here by editing this text...

Add a picture here

Add a picture here

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Project: Name of the project

Link: <http://www.google.com>

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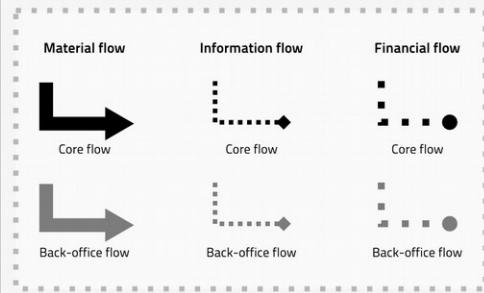
Designed by: Name Surname -

Designed for: Community / Place / Organization



Open MetaDesign_{0.1} System Map

Boundaries of the Activity



Project: Name of the project

Link: <http://www.google.com>

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Original development of the System Map: <http://www.mepss.nl/index.php?p=tool&l4=W21>

Designed by: Name Surname -

Designed for: Community / Place / Organization





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05.

Work for today:
**Form groups of 3 students. Choose
on project manager. Each group will
have its own repository.**



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05.

Work for today:

Think about a design project that will be open source. Today design a poster (an image) that communicate what the projects can offer



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Thank you!!

Massimo Menichinelli
Aalto Media Factory
massimo.menichinelli@aalto.fi
@openp2pdesign
<http://www.slideshare.net/openp2pdesign>



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