'Yes! we're Open.'

Open design for sustainable innovation.

A DIY manual for the open designer

by Thomas Lommée

Over the last 20 years we have been witnessing the steady evolution of the World Wide Web and with it the early developments of a networked society. Both producers and consumers now have potential access to a communication infrastructure that is geared towards sharing and exchange. This shift is profoundly changing our current models of creation, production and consumption. Just as digital cameras democratized photography ten years ago, the internet, CNC production techniques and free, easy-to-use 3D

software is opening up the design

profession today.

The participating consumer is no longer judging an object for what it is but rather imagines what it can become. Objects on the other hand are evolving into dynamic puzzles, self-improving product versions rather than rigid monoliths. Both producers and consumers are now enriching the overall product ecosystem by feeding it with new softand hardware plug-ins, updates and

add-ons.

The exhibition'Yes! we're Open.' unfolds the first materialized outcomes of a collaborative design language. By showcasing very diverse products, services and systems, it offers a glimpse into the characteristics and aesthetics of this new design culture.

This poster is a 'how-to' manual for every individual who wants to take part in the networked design process. It is also an analytical roadmap for every producer who wants to better understand the different methods and tools that will allow him to tap into the wisdom of the crowds and develop those products or services that people

really want.

The exhibition 'Yes! we're Open.' is part of the Innovation Festival

www.innovationfestival-kortrijk.be 08/10/2010 - 25/10/2010 10h - 21h @ Budascoop,

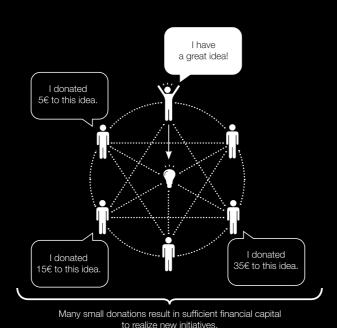
Kapucijnenstraat 10, 8500 Kortrijk

In a networked society **investment** is about sharing beliefs, leading towards decentralized financing platforms.

#### Gather support.

From 'venture capitalism<sup>1</sup> towards 'people-to-people' finance.

If we want to realize our dreams, we need to gather support from

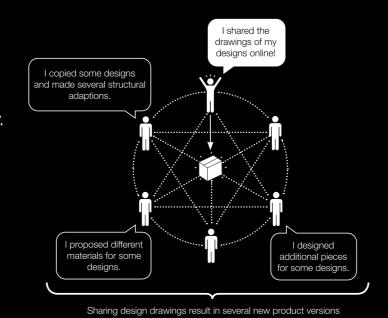


In a networked society **design** is about sharing ideas, leading towards a common design vocabulary.

#### **Share** drawings.

From copyright towards right-to-copy.

If we want our designs to self-improve, adapt and evolve. we need to share them



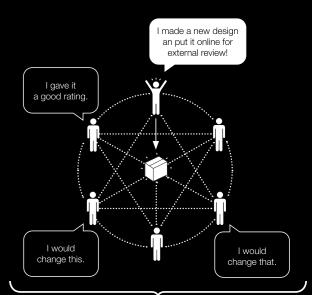
that self-improve over time

## comments.

Consider

From marketing towards market-driven design.

If we want to further develop our designs we need to be open to the comments of

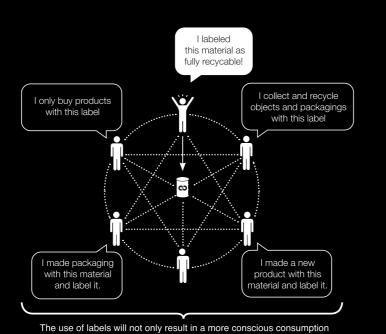


Design reviews by the community result in quick and relevant design improvements

#### Label materials.

From free material choice towards strict material frameworks.

If we want to insure resource abundance. we need to work with certified materials.

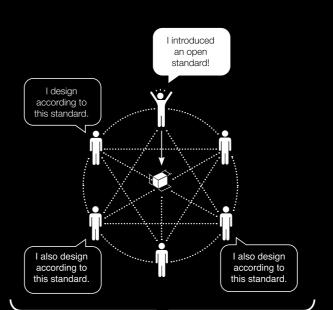


but will also facilitate recollection and recycling

#### **Standardize** dimensions.

From patented standards towards shared standards.

If we want to facilitate the exchange and reuse of components, we need to design according to common standards.



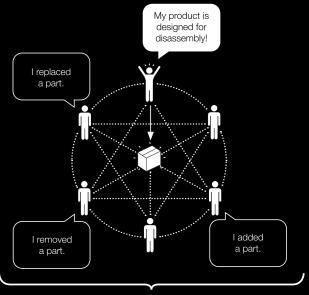
One common standard for multiple products results

in several compatible and adaptable product families

#### **Allow** disassembly.

From closed monoliths towards transparent component assemblies.

If we want to facilitate maintenance, repair and recycling, we need to design for disassembly.



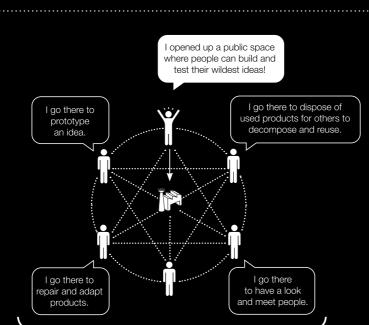
Design for disassembly will result in objects that are easier to adapt, maintain and repair.

In a networked society **production** is about sharing tools and workshops, leading towards flexible, smallscale production.

#### Exchange skills.

From corporate R&D departments towards public experimentation labs.

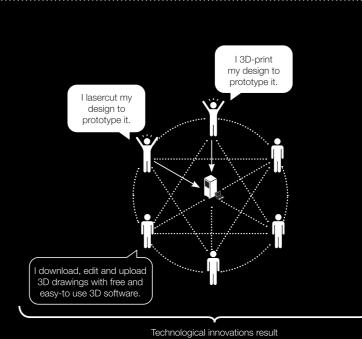
If we want to stimulate we need to install public workshops for creative exchange



#### **Prototype** designs.

From centralized mass production towards decentralized small-scale production.

If we want to democratize production, we need to make our prototyping tools simple and cheap.

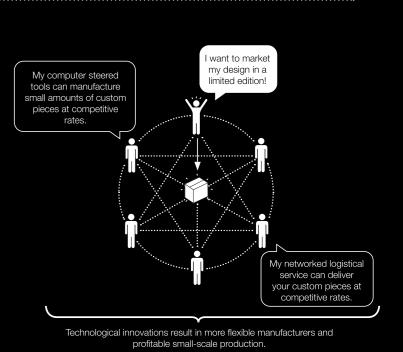


in easier, quicker and cheaper prototyping

#### **Outsource** production.

From rigid factories towards flexible manufacturers.

If we want to make small-scale production profitable, we need to make our production tools flexible and accessible

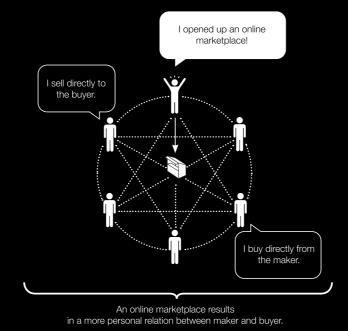


In a networked society **retail** is about sharing interests, leading towards a reconnection between makers and buyers.

#### **Personalize** sales.

From shopping centers towards shop-clusters.

retail, we need to reconnect makers



A public infrastructure for sharing tools and ideas results

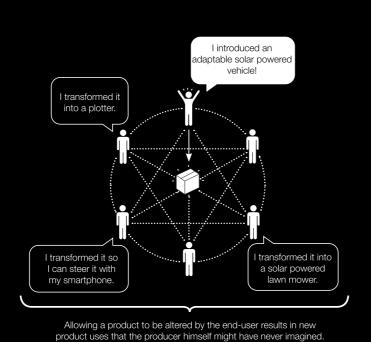
in more local initiative and collaborative innovation

In a networked society **consumption** is about sharing experiences, leading towards customerdriven innovation.

#### Allow hacking.

From static end-products towards dynamic product updates.

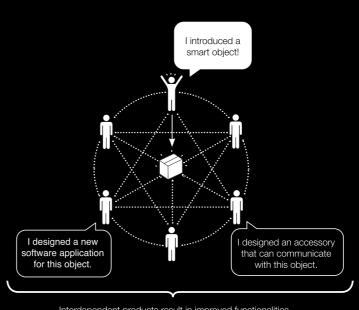
If we want to encourage the user to experiment and play with it.



#### racilitate clustering.

From independent product entities towards interdependent product ecosystems.

If we want to optimize the functioning of our products, we need to interconnect them.



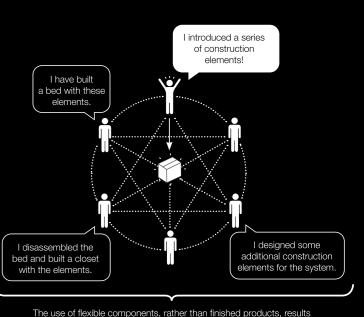
for all products involved.

## growth.

**Stimulate** 

From revolutionary shifts towards evolutionary adaptions.

If we want to make our products resilient, we need to allow them to grow and adapt.



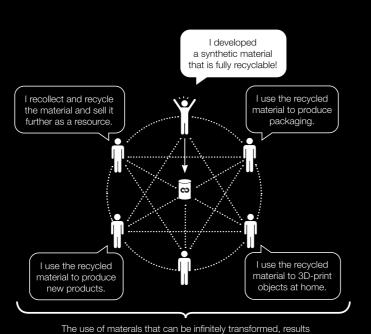
The use of flexible components, rather than finished products, results in adaptable constructions that can grow and evolve over time.

In a networked society recycling is about sharing materials, leading towards closed material cycles.

#### **Transform** waste.

From mere downcycling towards elegant upcycling.

If we want to reshape our future, we need to recycle without loss.





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**Exhibition** overview.

by Thomas Lommée Intrastructures.net 2010

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The Innovation Festival is an organization of:

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With the support of

zöndag

KW

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**Gather** support.

KICKSTARTER



Jile
Jile is a platform for project
financing. People who support posted ideas get a reward in return. www.jile.eu

creative ideas, where large groups of people donate small amounts of

Kickstarter is a funding-platform for www.kickstarter.com

> **Share** drawings.



Do-it-yourself concept by Extremis
The Belgian furniture company Extremis introduces a new approach that offers its clients the choice between buying a product or the rights to make one themselves



of the earliest open source building systems in the 1950s. He invited people to realize his designs by distributing 'How-to' manuals for



Autoprogettazione, from 1974, is a wooden furniture series published in a DIY guide that is meant to be built up by the reader out of pine planks and nails. www.artek.fi

#### Consider comments.



Threadless is an open call for T-shirt submit ideas, which are then rated by the online community. The most popular designs get produced and are sold via the website



Quirky is a product development company that works on the ideas of submitters. 30¢ of every amongst the designer and the product's influencers www.quirky.com

Label materials.



FSC is a label for wood and paper products that signifies that the product comes from a sustainably managed forest

**Exchange** 

skills.

cradletocradle

Cradle to Cradle® Cradle to Cradle® Certification is an eco-label for materials that guarantees the possibility of endless recycling without quality www.cradletocradle.nl

**Standardize** dimensions.



The power grid Our power infrastructure is a good example of a system that uses shared standards - like common dimensions for bulb fittings, plugs and outlets. These agreements facilitate the adaptability and reuse

of all individual components.



system for all.

everybody to contribute parts, components and structures

by Thomas Lommée
The OS (OpenStructures) project explores the possibilities of open modular construction on the basis of one shared geometrical grid. It enhances collaboration by allowing **Allow** disassembly.



generators, small airplanes and even

**Outsource** 

production.

The VW "beetle"engine This engine is a good example of an independent component that can easily be disassembled, maintained and repaired. It therefore also stimulated its users to come up with various other functions, for example self-built racecars, electricity

Because bicycles are easy to disassemble and bike components are frequently interchangeable, the user is invited to adapt and personalize their bicycle over time.

Clamp structures 20 students of the KHMecheler used one common galvanized steel clamp as a common assembly element for their designs. This allows all structures to be disassembled and recombined, resulting in flexible constructions and numerous hybrids An Intrastructures concept. www.khm.be www.intrastructures.net

by Nicola Enrico Stâubli Rearranged demonstrates the potential of further development on existing furniture. By using the high degree of flexibility and adaptability of design classics, like the Eames the base and hereby enhanced and diversified the piece.

www.nicolafrombern.com

In a networked society production is about sharing tools and workshops, leading towards flexible, smallscale production.

Tech shop California TechShop is a membership-based workshop that provides members with access to tools and equipment, instructions, and a community of creative and supportive people, so they can build the things they have always wanted to mak www.techshop.ws

**Personalize** 

sales.

timelab is a workplace for art, technology and society in Ghent. It consists of a fabLab, an artists-inresidence program, social research and get-togethers, where artists, experts and other interested partie can meet, exchange ideas and find inspiration. www.timelab.org

**Prototype** designs.



RepRap by Adrian Bowyer & RepRap community RepRap is a 3D desktop printer, capable of printing plastic objects. Since many parts of RepRap are made from plastic, and RepRap car print those too, it is a self-replicating machine - one that anyone can build given time and materials. www.reprap.org



by Lieven Standaer & Kurt Van Houtte
MiniCNC is a small, open source milling-machine made out of laser cut parts. It is available as an easy-to mount and inexpensive kit. http://www.timelab.org/miniCNC



Sketch Chair by Greg Saul The Roto moulder is a (low-budget)
DIY, flat pack that gives virtually user and constructed from laser cut everybody the possibility to discover veneer, felt and palm fiber. They are custom software that generates lase www.studiomyfirst.co.uk cutting patterns.

www.sketchchair.com

by Vandasye This stool is built up out of four pine legs and 3D-printed plastic elements. This means that, if permission is granted by the designers, everybody with a 3D printer could reproduce



L'Artisan Electronique by Unfold & Tim Knapen L'Artisan Electronique is a virtual pottery wheel that was realized by means of a 3D scanner and digital designs can thus be downloaded and printed at home.

A Z33 commission with the support of Bits from Bytes.

www.unfold.be

www.wereldderindianen.be



DIY drones by Chris Anderson Chris Anderson, editor-in-chief of WIRED, but also passionate garage inventor, started up a small-scale production for little DIY aircrafts. Custom parts for these drones are produced and delivered in small volumes at various companies all over the world. www.diydrones.com



by byAMT hrough the use of selective laser sintering a series of ball joints -normally assembled with separate piece, thus creating a clean and striking jewelry collection.

www.byamt.com

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## hacking.

Etsy is a vibrant handmade marketplace. Etsy's mission is to enable people to make a living

making things.



Bended Speak & Spell by Daedsound Roomba hack by Christopher Myers Speak & Spell is a series of electronic Roomba is a robotic vacuum cleane The Roomba Open Interface allows programmers to create their own handheld educational toys. By cross-wiring terminals and adding electronic enhancements, thereby developing components, amateur hobbyists new uses that weren't foreseen by purposely disrupt normal functioning of the device in order to create new



"Design for [every]one" is a research project at the University College of West-Flanders (Howest) that aims to bridge the gap between universal design and rehabilitation engineering. Co-creation techniques are applied the design team, patients and

adapted breaking system and some modified badminton shuttles for improved visibility and performance All how-to manuals for adaption are

# clustering.

**Facilitate** 



Due to a number of accessible interfaces, users and companies can build further on the original iPhone design. By doing so, they enlarge the functionalities and resilience of the resulting product http://www.apple.com/iphone



Buglabs offers a module-based Linux computer for rapid prototyping. It provides a collection of electronic modules that can easily be plugged together and programmed to make any device you want. www.buglabs.net

#### **Stimulate** growth.



Indie furniture by Nicola Enrico Stâubli This is a storage solution consisting of universal furniture joints and customized wood panels. An online planning aid helps creating a unique piece and sells the connectors, while the wood is supplied through the carpenter around the corner. www.indie-furniture.ora



Social housing by Elemental The architectural do-tank Elemental from Chile, designed social housing in which 50% of each unit's volume will eventually be self-built by the inhabitants.

www.elementalchile.cl

**Transform** waste.



Rammed earth construction Rammed earth construction uses compressed soil as a building material. This technique generates an resource that is simply returned back



Belland® Material Belland® Material is a plastic material, which can be continuously recycled without down-cycling by simply dissolving it in a water-based solution. www.belland.de

