OPEN SOURCE FASHION

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ABOUT ME:

• Aalto University, MA in Fashion Design (minor in Art Theory), 2013

• Lahti Institute of Design, BA in Fashion and Clothing Design, 2006

• Work: designer in industry, commercial and visual merchandiser, freelance costume designer etc.

• Why open source topic? In retail since 2004 -> a gap between the designer and the customer!
LECTURE:

- What is “open source”?
- My MA thesis: fashion openness / open source fashion
- Active and passive user data
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- What is "open source"?

- My MA thesis: fashion openness / open source fashion

- Active and passive user data
"open source philosophy" as a framework

"open design" as a design approach
"open source philosophy" as a framework

"open design" as a design approach
"open source philosophy" as a framework

- Sharing, collaboration & contribution, recipes and cooking
- Mid 20th century "open society" ideas: transparent, non-authoritative, citizens’ direct and flexible participation
- "Open source software". Doug Engelbart’s key ingredients of internet in 1968 in San Francisco: computers are the path to personal liberation, freedom of expression, flat hierarchies, decentralized organizations and unleashed collective creativity (Leadbeater, 2009: 39)
- Microsoft believed in owning software. Open source club believed in sharing software > digital wars
- Ivan Illich’s (1971): ”deschooling”, Alvin Toffler (1980): ”prosumer”; Post-modern philosophy (e.g. Barthes, & The Death of the Author)
- Hackers
- IP protection & law is difficult and unproductive in the ”network society”
"open source philosophy" as a framework

Open Source Definition (OSSW)

1. Free redistribution
2. Source code
3. Derived works
4. Integrity of the authors source code
5. No discrimination against persons or groups
6. No discrimination agains fields of endeavor
7. Distribution of license
8. License must not be specific to a product
9. License mut not restrict other software
10. License must be technology neutral

Open Source Initiative [https://opensource.org/docs/osd](https://opensource.org/docs/osd)
Examples

- cultural commons such folk music, myths and language
- Creative Commons license, Copyleft
- Remix-culture
- Amateurism: zines, fan-fiction
- Sharing economy, collaborative consumption and P2P
- Open politics: direct democracy, transparency, Pirate Party, Wikileaks
- Citizen activism
- Open data, open science: open-access journals, free online courses
"open source philosophy" as a framework

Problems

- Only active and networked people tend to participate and have their voice heard
- Risk of exploitation
- Content-empty "postdemocracy", involvement where it is not needed
- Degradation of expertise
- Distribution of false knowledge
- Only economically, culturally and socially privileged people have the means, time and the skills to learn, share and make
- Over-connectedness, lack of privacy
- Does participation really empower?
- Do people want to participate?
"OPENNESS"

- Transparency
- Sharing/P2P
- Horizontal Network
- Accessibility
- Collaboration/DIT
- Empowerment/DIY
- Remix/bricolage/customization/on-demand
- Active participation

Libraries and recipes!
"open source philosophy" as a framework

"open design" as a design approach
• Co-design
• Open source design
• Design activism
• Sharing knowledge
• DIY / Maker culture
• Mass-customization

“open design” as a design approach
CO-DESIGN APPROACHES

- User Inspiration
- Developer Immersion in Use
- Human-Centred Design
- Collaborative Design
- Co-Creative Design
- Hybrid User Innovator Community
- Independent User Innovator Community

- inspiration
- investigation
- cooperation
- community

OPEN SOURCE DESIGN & OPEN SOURCE HARDWARE

Design is made publicly available so that anyone can study, modify, distribute, make, and sell the design or hardware based on that design.

https://www.instructables.com/id/Building-the-Open-Knit-machine/
designers foster open design by producing and sharing suitable blueprints, which are publicly available, sharable, licensed under open-access terms, and distributed digitally in a general design specification file format.

Type of co-creation (or co-design) where the final product is designed by the users/amateurs, rather than a private company OR anyone can produce the product according to a free blueprint shared by designer or skillful amateur.

Counteraction to patenting and designer-centered design.

Also: participatory design, metadesign, social design, user-centered design, inclusive/universal design, mass-collaboration (Fuad-Luke, 2009) and user innovation (von Hippel, 2005).

The Netherlands have long roots in communal innovation - open design flourishes there.

Van Abel, Bas; Evers, Lucas; Klaassen; Roel & Troxler, Peter (2011) Open Design Now: Why Design Cannot Remain Exclusive, BIS Publishers.
• commons-based peer production (Troxler, 2011)
• Maker Faire in the USA, Make Magazine and Craft Magazine
• Ponoko, Shapeways, Thingiverse, Instructables, Shareable, Physibles, (Etsy)
• Makerspaces, TechShops, Hackerspaces & FabLabs are the ”libraries” of OSHW
• Doing, making, repairing, building or modifying without professionals
• Political, for fun or out of need
• 3D-printers and easy 3D-software, rapid prototyping, desktop or additive manufacturing, micro-manufacturing; develop fast because of the OS attitude
• **Design activism**: ’design thinking, imagination and practice applied knowingly or unknowingly to create a counter-narrative aimed at generating and balancing positive social, institutional, environmental and/or economic change’ (Fuad-Luke, 2009: 27)

• **Fashion hacktivism**: combines political activism + hacking, ”a new form of fashion design practice in which the work of auteur, whom has been assigned by a prestigious company, is replaced by a close cooperation between designers, producers and users.” (von Busch, 2009: 29)

• Agenda! Purposive hacking of the system
SHARING KNOWLEDGE

How to Fix a Zipper on One Side of the Track (Chain)

How to Fix a Zipper that Doesn’t Close

How to Fix a Zipper and Put a Slider on to Zipper Chain

"If the mass production took away the mentality of co-creation, the digital revolution definitely restored it" (Leadbeater, 2009)

Mass-customization can offer cost-effective goods that fulfill individual demands and are customized within the context of a given product line (Pine, 1993)

Customized + mass-produced + affordable

Problems

- Poor design? Release first, feedback later
- Deprofessionalization
- Requires skills, equipment, space and materials
- Lack of motivated users/amateurs (marginal)
- Risk of producing extra stuff that nobody actually wants and needs
- Geeky and male-dominated
- Authorship and legal issues
- How to get paid?
- New hierarchies?

“…the existence of a global industry that produces a huge variety of creative goods in markets larger than those for movies, books, music, and most scientific innovations, and does so without strong IP protection. Copying is rampant, as the standard account would predict. Competition, innovation, and investment, however, remain vibrant.”

- Only fabric designs or innovations, specific ornamental features, manmade textiles, and the logo / trademark are protected

- copyright laws nurture the closed systems of the industries (Thackara, 2011) and the “one-to-many broadcast distribution model distorted our perception of creativity” (Katz, 2011).
• What is "open source"?

• My MA thesis: fashion openness / open source fashion

• Active and passive user data
FASHION OPENNESS

Applying an Open Source Philosophy to the Paradigm of Fashion

Natalia Mestonen | 2013
Investigates the philosophy and approach of open source being applied to fashion practice in order to reflect on the benefits this may offer to creating a more environmentally, socially and economically sustainable fashion system.
• Looks at the future of fashion from a futures studies perspective but retains the intuitive and designerly approach, suitable to my field of expertise

• literature (books, academic publications, internet):
  A. a historical overview on ”open source philosophy”
  B. the existing “open” practices
  C. the fashion system & sustainability
  D. the existing “open” practices in fashion field

• Delphi panel
  ✡ 16 expert participants
  ✡ 2 survey rounds
THEORETICAL FRAMEWORK:

Dynamical systems paradigm


- System is not stable and can be influenced from within; interest in the nature of change
- Paradigms of ”systems theory”: mechanical/closed, organic/open and unstable/dynamical systems

Leverage points


8. Material stocks and flows.
7. Regulating negative feedback loops.
6. Driving positive feedback loops.
5. Information flows.
4. The rules of the system (incentives, punishment, constraints).
3. The power of self-organization.
2. The goals of the system.
1. The mindset or paradigm out of which the goals, rules, feedback structure arise.

THEORETICAL FRAMEWORK:

”Abstract machines”


- Enlightenment e.g. Descartes, Newton, Kant = *Clockwork*
- Industrialization e.g. Freud, Marx = *Steam engine*, motor mechanical movement produced under pressure
- Information age and network society (Castells, 2007) e.g. post-structuralists, ”openness”, design as a process, not a product = *computers, internet, social media/web 2.0*

> fashion as a dynamical, autopoietic and open system, which is difficult to bend into mechanic, closed and hierarchical paradigm

> self-renewal requires active recognition and utilization of resources

• Designer’s personal frustration: creating demand, producing useless stuff/inventory, assumption-based design, creation for creation

• At the breaking point of the industrial and post-industrial era, caused by information technology (see Castells, 2000), we are experiencing the trend of “openness” among many fields, such as media, politics, music and science -> forcing change

• Escaping from hierarchical thinking and one-way communication, striving for sharing structures and user empowerment (or user-centeredness)
What would “open source fashion” be?
How could it affect the fashion paradigm and the role of designer?
- *Open* and *dynamical* system (see Ståhle, 2008): impossible to mechanically define; impossible to predict unless influenced from within (Kuosa, 2009) -> I am looking at probabilities

- *Symbolic* (aesthetics, brand, institutional) + *physical* (clothes, production) dimensions
Partly based on Gwilt’s (2011) analysis of the phases of fashion design and production.
• Fashion industry produces much more that is purchased and used > finding balance between the demand and supply > towards **personalized on-demand** production

• **Participation in designing/making/customizing** (long life guarantee; customization; half-way products; modular structure; co-creation; open-source design; design services and unique design) > **emotional attachment** > **longer garment life** (Niinimäki, 2012)

• **Skills** to upcycle; **knowledge** about the fashion industry

• **Transparency** forces companies to improve their practices

• **Empowerment** from the social perspective: community, feeling of ability and activity, self-expression, craft-therapy

• ”Sustainable fashion, as a subset of a larger fashion system, is particularly suited to the **horizontal diffusion** capabilities and subversions of the internet.” (Scaturro, 2008)
How is "open source" applied in fashion?
OPENNESS IN FASHION

- Fashion is collective activity - designers personify fashion (Kawamura, 2005); cool-hunting is proof of collective creativity instead of individual one (Bollier & Racine, 2005, 39)

- "Open source" approach in relation to clothes is familiar to everyone: making/customizing clothes vs. making an electronic device

- User-Centered Design: in functional clothing design it is common to involve the users (special groups, experts) in the design process (Watkins & Dunne, 2015). The designer can also belong to the special target group, either recruited by the company or being a user-innovator or a lead user (von Hippel, 2005)

- Different levels of openness, from transparency (free distribution of code) to DIY (building on code or creating one and sharing it)

- Code set by a myth - can be de-coded (von Busch, 2008); von Busch proposes Eric Raymond’s cathedral and bazaar framework: from to-down hierarchy to flat & networked organization + talking back to the system
OPENNESS IN FASHION

- Deconstruction / reverse-engineering (e.g. Margiela)

- Design is unfinished or leaves possibility for the garment to evolve in use and through alteration (e.g. Japanese fisherman’s coat, Rissanen, 2011; Fletcher, 2009)


- Openness is enabled by contemporary information and communication technology

- Open-ended design cannot offer a closed object, one-way information flow, thus can not be controlled throughout the design process; undefined and unfinished design, unpredictability

- New roles for designer: designing the design process, platforms, action spaces, services, interaction, systems etc. Curating, evaluating, assisting, educating, conducting, supporting, consulting.
Examples
"documentation of the design code of established identities in order to derive new and evolving fashion aesthetics, serving also as a platform for self-expression and nest for new ideas.” - Giana Gonzalez

“open source library” which collects designers’ most repetitive design elements (the codes) with the goal to enable users’ contribution and modification of “the code”. Internet offers connectivity and dialogue.

Workshops: de-program material and sign systems of famous brands, to open their expressive source code into various forms of charts and diagrams; use the brand maps to make own interpretations of the brand, for example “Guccifying”, their clothes
OPENWEAR PROJECT (2010)

- report, website and web-community (not active anymore?)
- Showbox; find collaborators to work with; P2P-learning and sharing knowledge
- Collaborative Collections - freely downloadable and customizable; can be sold under open source collective brand
The Post-Couture Collective offers an alternative to today’s fashion system. We’re introducing a new era in the production of sustainable and affordable clothing. In our vision clothing is designed on the principles of open-source, and is made using 21st century technology. We are the first fashion label that truly embraces the Maker Movement and the Third Industrial Revolution.

- Collaborations with designers
- All items of the Post-Couture Antwerp collection can be downloaded as digital design files, with which users can go to a local Makerspace to create their own garments
• Copyright removed from the design of the patterns - can be freely modified and garments sold
NIKE ID
(MASS-CUSTOMIZATION)
Research
• Delphi is an application of the systems thinking and a characteristic method for future research (Kuosa, 2009) - a suitable method to explore the future developments of fields as inexact as fashion, design and the future

• **Quantitative + qualitative** study

• An expert panel of **two rounds**. After the first survey round the answers were synthesized and the next questions were made based on the results. The questions are the same to every participant. Some of the participants did not want to be mentioned by name but were comfortable to be mentioned by occupation.

• Participants were chosen based on their expertise in fashion, research, marketing, media and other fields concerning lifestyles, culture, future visioning or open philosophy

• The return rate of the first round was 40% (16/40) which is enough for this study. The return rate of the second round was only 37.5% (6/16)
• **RQs:** What are the probabilities of open source philosophy to be applied to the paradigm of fashion? How big of a scale it is likely to happen? What do the contemporary experts from the creative fields think about the subject of open fashion design?

• **Seven themes:** 1. fashion dynamics; 2. identity and material values; 3. fashion communities and new business models; 4. technology; 5. driving forces of co-creation; 6. the role of designer; 7. co-creation and social networking

• **Aims:**
  ✶ To find what aspects are likely to make open fashion possible or impossible
  ✶ To explore what are the most important and unimportant reasons for open fashion to exist
  ✶ To discover who are the likely or unlikely actors in the open fashion processes
3. Ways to create sustainable fashion:

- new product innovations: the only way for creating sustainable fashion
- new service innovations: the only way for creating sustainable fashion
- open fashion is a competitive option to new product innovations
- open fashion is the most competitive option for creating sustainable fashion
- it is impossible to create sustainable fashion

4. Creating more sustainable fashion is going to be initiated most likely by:

- fashion companies
- users
- fashion professionals
- other design professionals
- environmental activists
- politics

other professionals/academics: the less expected
Round 1

The most likely points: the biggest amount of number 1:s. In the survey number 1 stands for “almost certain” and number 2 for “likely”; on the contrary number 5 stands for “almost impossible”.

TOP 10 MOST LIKELY DEVELOPMENTS

1. If there will be more specific networks created around fashion creation, the most likely role of the amateurs will be to share information (1,27), initiate (1,33) and realize (1,67)

2. If there will be more specific networks created around fashion creation, the most likely role of the fashion designers will be to inspire (1,31)

3. The most likely driving force for users to co-create with a fashion company/professional designer rather than buy a ready-to-wear garment is self-expression / creativity (1,33)

4. Young population are the most likely to be the ones to participate (1,5)

5. If there will be more specific networks created around fashion creation, the most likely role of the ordinary consumers will be to share information (1,5)

6. The role of fashion supply today is more likely about creating consumers’ desires (1,5)

7. Good reputation / brand is the most likely motivation for companies to create sustainable fashion (1,6)

8. Social networks for their field of interest will be the most likely non-material force for people to form their sense of identity from (1,6)

9. The most likely driving force behind forming fashion co-creation and co-production networks between the professionals and non-professionals will be collective creativeness (learning from each other, sharing ideas and information) (1,64)

10. Individual self-actualization/creation will be the second most likely non-material force for people to form their sense of identity from (1,67)
RESULTS

Round 1

This list is based on the smallest deviation between experts’ answers. The smaller the number, the more participants agree with each other. In this survey, when the participants are more unanimous, the deviation number is smaller than 1; when less unanimous - bigger than one. The answers with deviation number that is bigger than 1 can be considered unreliable (i.e. experts disagree with each other and no conclusion can be derived).

TOP 10 MOST AGREED DEVELOPMENTS

1. If there will be more specific networks created around fashion creation, the most likely role of the amateurs will be to share information (0.46) and initiate the networks (0.62)

2. The most likely driving force for users to co-create with a fashion company/professional designer rather than buy a ready-to-wear garment is self-expression / creativity (0.48)

3. It is between likely and 50/50 chance that the fashion enthusiasm will grow among the amateur creators (0.51) and the ordinary consumers (0.64)

4. Fashion professionals are quite likely – but not the most likely - to initiate the creation of more sustainable fashion (0.59)

5. If there will be more specific networks created around fashion creation, the most likely role of the fashion designers will be to inspire (0.6)

6. It is unlikely that fashion field is going to be totally overthrown by the amateurs and the industry will no longer exist (0.63)

7. It is between likely and 50/50 chance that the creation of fashion / fashion design going to be user-centered through user-contribution (0.64)

8. The role of fashion supply today is more likely about creating consumers’ desires (0.65)

9. If there will be more specific networks created around fashion creation, it is between likely and 50/50 chance that the role of the fashion designers will be to share information (0.65) and realize the products (0.66)

10. The role of fashion demand today is quite likely about social status (0.68)
Fashion dynamics

- paralleling polarized fast and slow trends - customized seasons
- In addition to new product innovations, open fashion is very likely to be a competitive route to sustainability
- open fashion as a tool inside a big company or base of a start-up business
- innovation can come from the less expected because it is open to all
- new innovative methods and business models by experts > affect attitudes and behavior of the users
- companies seek for good reputation > marketing tool, might become the next greenwashing, superimposed feature

Identity and material values

- Production-on-demand-type of systems or production of demand
- emphasize quality instead of quantity
- critical and democratic discussion about fashion
- creating instead of consuming; sharing defines the approach to material values
Fashion communities and new business models

- all the participants of the new fashion industry under the same “roof”
- material and information sharing
- co-creation communities for special groups
- communities for critical discussion about fashion
- dynamic and well-executed new service model/platform
- revenue might come from the actual making / manufacturing
- swapping, lending, sharing and renting

Technology

- 3D-printing and easily accessible (through price or usability) softwares
- cradle-to-cradle production; low water use in production and maintenance; better recycling planning or even 100% recyclability
- self assembling materials (esp. proteins)
- logistic solution to make waste/surplus smaller or logistic solutions to make smaller quantities of custom products at bigger companies
- social media developments or intelligent sharing systems
Driving forces of co-creation

- demographics not important, yet, young population is accustomed to the open sharing culture, have more time, money, energy or capacity for ideas
- game dynamics, that make participation easy
- learning from each other, sharing ideas and information - profs and non-profs co-operating, however protection of professionalism is most probable a barrier
- weak offerings
- highlight the skills of the professionals

The role of the fashion designer

- expressing the community and creating frameworks
- artistic role of the designer divides opinions; will remain as long as it serves businesses and the professional field
- the importance of education will decrease and enthusiasm (DIY) increase
- fashion designers will continue to exist; new definitions for amateurs
Co-creation and social networking

- the popularity of social media networking is going to grow in the future on every level
- as a reaction - desire for hapticity
- the participants of the fashion creation networks will mostly be the professions and enthusiastic amateurs
- the main task of these networks will be sharing information or inspire each other
- the fashion co-creation activity will probably change the fashion paradigms
Round 2 Summary

- Qualitative, thus, can be viewed as six further interviews

Trends & Applications

- “Customizable seasons” and “open fashion” as tools are most probably going to find their place within traditional industry-based companies only in a small scale niche market, among streetwear, high street and sportswear companies. Might also be used as a marketing strategy.
- New tools are more easily adapted by new companies that build their models in a new way from day one
- Half of the respondents think that open fashion will be just a passing trend, but it might have opportunity to grow due to the niche group of activists who are spreading the DIY attitude; another half believes that open fashion will stay more permanently among its own market and followers, alongside with the existing, dominant fashion system
- Shift in collective thinking has potential to really affect the system
- On-demand production might lead the way to quality instead of quantity
- Biggest change diffuses from big companies; also universities play a role; influential public figures, policy makers and media affect peoples’ attitudes
- Suggestions of different games, e.g. idea filter, recommendation based on values
- Professionalism and stardom will not be displaced by “open source fashion”, which today seems to emerge mainly as a niche phenomenon and a trend among many others. But openness in general is clearly increasing, which might also blur the boundaries between different design professionals and amateur enthusiasts
**CONCLUSIONS**

**Literature + Delphi panel:** open fashion vs. open source fashion

- Open source fashion design is as almost as marginal as open source design. DIY and crafts have always been there and their popularity increasing due to digital overdose.

- **Open fashion** is a transparent; educates users and offers them the possibility to choose; encourages people to participate and share. **OSF** is deconstructive and interactive. **High openness** (DIY, hacking, open source fashion); **medium openness** (mass-customization), **low openness** (the conventional companies)

- **Fashion openness on a low and medium level** is a trend turning into a paradigm. **OSF** is a niche phenomenon that could grow in its popularity among fashion enthusiasts if the right technology and communities are available.

- "**Openness**" appears as a trend and a megatrend in form of transparency, sharing practices, (mass-)customization, increasing utilization of user feedback

- Suggestions of big-scale, mid-scale and small-scale interventions
LECTURE:

• What is ”open source”?

• My MA thesis: fashion openness / open source fashion

• Active and passive user data
Open source fashion presumes *active* user participation. Today, the use of big data enables product personalization where users’ role is *passive*.

- Data-driven design
- Algorithmic / generative design (machine learning)
- Robotization and micro factories: quick production of unique, personalized products
- E.g. Stitch Fix, Amazon, Zalando
Focuses on the **professional fashion designers**, analysis of and comparison between:

- Conventional fashion designer’s authorship and the professional status (literature)

- Authorship of professional fashion designers in ”4.0 industry” context, where the conventional human-designer-centered approach is questioned (case studies)

- **Case studies**: ethnography (observation, interviews), secondary sources (literature, media, websites)

- How the contemporary technological environments are affecting the authorial and professional role of fashion designer?
THANK YOU!

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