Look at the world with new eyes

Photo: Metropolia Amk

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New meanings of work in a digital printing network

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1. Digital printing

- Digital printing in the textile-, clothing- and interior industries opens up the potential for new network formation among the firms and their clientele, research institutes and trade organizations

- The promises of digitalization lie in sustainable development, local production, consumer involvement, and networking

- However, the relationship between consumption and sustainability has been questioned

Sustainable consumption?

Photo: Metropolia Amk

DigiPrintNetwork

- DigiPrintNetwork discusses the possibilities to combine network learning research and user-oriented design research with the development of new business models and the design of product and online service concepts based on digital printing technology

- Tekes project 2015-2017 coordinated by the Helsinki Metropolia University of Applied Sciences

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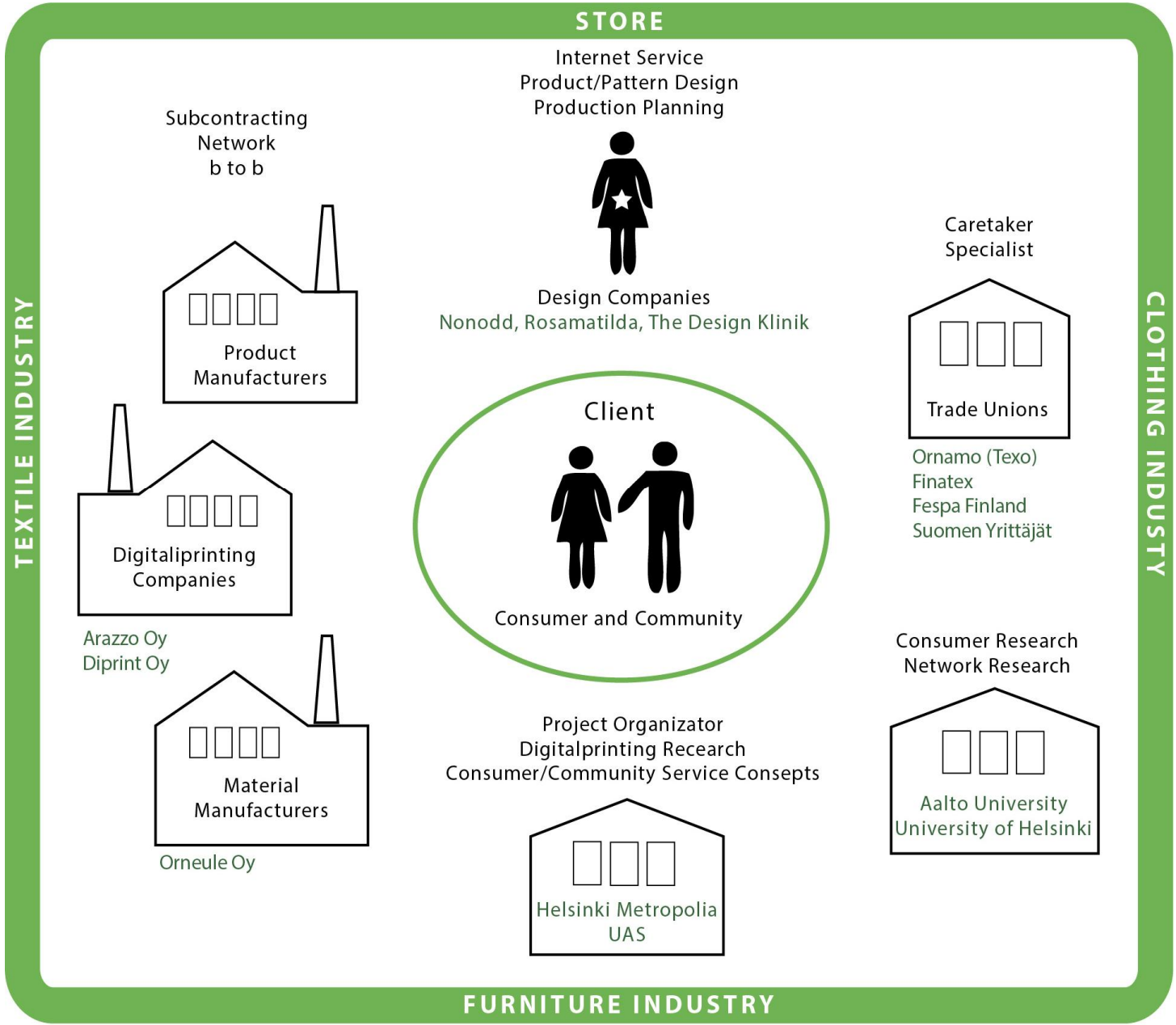
DigiPrintNetwork and its ecosystem

- The research interest is on the emerging ecosystem that the digital printing network creates for its business model.

- The ecosystem comprises of the members of the network – the design entrepreneurs, materials producers, digital printing firms, and the administrators

- and developers of online service – the customers/consumers, interest groups such as trade organizations, universities, civic organizations and leisure activities

DigiPrintNetwork

Design: The Design Klinik/Tuiti Paju

DigiPrintNetwork STAKEHOLDERSMAP

STORE

TEXTILE INDUSTRY

CLOTHING INDUSTY

FURNITURE INDUSTRY

Internet Service
Product/Pattern Design
Production Planning

Design Companies
Nonodd, Rosamatilda, The Design Klinik

Subcontracting
Network
b to b

Product
Manufacturers

Digitaliprinting
Companies

Arazzo Oy
Diprint Oy

Material
Manufacturers

Orneule Oy

Caretaker
Specialist

Trade Unions

Ornamo (Texo)
Finatex
Fespa Finland
Suomen Yrittäjät

Client

Consumer and Community

Consumer Research
Network Research

Aalto University
University of Helsinki

Project Organizator
Digitalprinting Recearch
Consumer/Community Service Consepts

Helsinki Metropolia
UAS

The object: Products of digital printing

Photo: Metropolia Amk

Network activity

- Based on digital printing technology, but possibility to disseminate new practices to other sectors?

- Networking between developing small/micro enterprises and vocational institutes

- Knowledge creation from network to firms

- Towards international markets through local and ecological activity

- Consumer involvement in online service

- Customised service concepts for communitites

- Informing through stakeholders

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2. Network learning research

Design: Nonodd

Reseach approach

- Entrepreneur network creating a new business model and production concept based on digital printing

- Object-oriented learning by networks (Toiviainen, 2003; 2007) is applied to analyze collaborative challenges and innovations

- Partner networks have generally been analyzed retrospectively when the learning outcomes already are known

- Network research on a developmental rather than behavioral basis

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Research questions

- How do the network actors understand and conceptualize the new digitally mediated objects of business activity?

- What are the learning-critical interfaces of the emerging actor network and ecosystem?

- What kinds of tools and work environments are developed, experimented with and implemented for mastering new objects and transcending the interfaces?

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Value creation

- Value creation and the revenue logic in online service are analyzed from the customer or consumer perspective (Niinimäki, 2011).

- Research draws on the knowledge created in the previous project concerning the service concepts for digital textile printing.

- Methods comprise consumer surveys, lead user focus group interviews, and the network stakeholder interviews.

- Among the stakeholders are the designers who offer their surface design and products to customers on new revenue logic.

- New value creation based on sustainability includes co-designing by means of which the customer may participate in modifying the print design.

Perspectives

- How does digital technology mediate the consumer and designer perspectives in online network-based activity?

- What are the conditions for the customer understanding by designers and the meaningfulness of the products for customer-consumers?

- How does the customer's value or experience contribute to the value creation in the stakeholder network?

- How do the roles of the designer, producer and consumer change in the digitalization of work?

Open or closed service network?

- What are the new ways of designing and producing products in a network?

- How to open the design option towards other designers?

- How to open the design option towards consumers?

- How open the service/network can be?

- How does it change the role of designer?

- IPR

Methods and Data

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- Interviews and work ethnography
- Consumer surveys, lead user focus group interviews, and the network stakeholder interviews
- Workshops with network stakeholders
- Workshops with customers (lead users)
- Workshops with customers and designers
- Workshop with design students

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4. Conclusion

- The DigiPrintNetwork research aims to investigate the new meanings of work related to digitalization and intensified networking

- These transformations include potential to new business and production concepts

- Learning challenges both to individual entrepreneurs and to the collective network of multiple stakeholders

- Consumer research is needed to support the change and create new consumer involvement in digitalized product and service provision

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DigiPrintNetwork

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Thank You!

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