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South African fashion design entrepreneurs' awareness and practices of sustainable fashion supply chain operations

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Abstract

The textile and clothing industry intensifies pollution through the production of fast fashion clothes. The increase in fast fashion clothes imports in South Africa has led to the closure of textile factories and consequent loss of jobs. Sustainable development is a pathway to reducing socio-environmental, cultural and economic harm. Sustainable processes and products create new employment. Fashion design entrepreneurs are often involved and have influence in every supply chain of their business and are thus in one of the best positions to implement sustainable fashion supply chain operations. This qualitative study aimed to investigate South African fashion design entrepreneurs' awareness and practices of sustainable fashion supply chain operations. Participants were selected purposively, and data was collected through semi-structured interviews. The results indicated that most of the participants were aware of sustainable fabrics through personal research. Half of them source and produce sustainable garments on a small scale due to the high price of sustainable fabrics. All the participants had limited knowledge of sustainable design methods. All the participants save their fabric offcuts, and only half of them are motivated by environmental concerns. Furthermore, the results indicated a lack of systems to manage the recycling of fabric offcuts. Given that there are few sustainable fashion design entrepreneurs in South Africa, the study recommends that textile and clothing industry leaders, especially sustainability practitioners, disseminate knowledge and training across the board on sustainable supply chain operations.

Keywords: Fashion design entrepreneurs, Sustainable supply chain operations, Sustainable fabric sourcing, Sustainable garment design, Sustainable garment manufacturing

Introduction

Entrepreneurship is linked to sustainable development because entrepreneurship contributes to innovation, generates employment, influences economic development, betters social issues and assists in dealing with environmental issues (UN, 2015). Sustainable operations in businesses entail those businesses integrating sustainable values into the creation of new merchandise (Zu, 2014) and reconsider their core processes and productions (Fisk, 2010). Given the fact that the textile and clothing industry (TCI) has contributed to the current socio-environmental challenges, fashion design entrepreneurs cannot afford to have sustainable operations as a separate element in their business. Sustainable operations ought to be at the core of their business. The inability to address socio-environmental challenges endangers businesses' capacity to build wealth and to be viable in the future (Zu, 2014,). Businesses that incorporate sustainable practices have a competitive advantage (Bomgardner, 2018). For the South African textile and clothing industry (SATCI) to be sustainable and improve its sustainability efforts, sustainable supply chain operations need to be integrated into business practices and processes to ensure and increase the production of sustainable clothes. South African Fashion Week (SAFW) is a platform for South African fashion designers

to showcase their work. May (2019) reports that SAFW has a record of 580 fashion designers. However, only a small number of fashion designers are socio-environmentally sustainable.

Within this research context, this study aimed to investigate South African fashion design entrepreneurs' awareness and practices of sustainable fashion supply chain operations. Table 1 presents the objectives of this study.

Table 1: Sub-aims of the study.

Sub-aim 1
Explore and describe fashion design entrepreneurs' awareness of sustainable fabrics and garment design methods
Sub-aim 2
Explore and describe how fashion design entrepreneurs balance economical sustainability and socio-environmental sustainability while sourcing fashion materials, designing garments and manufacturing garment
Sub-aim 3
Explore and describe fashion design entrepreneurs' current practices while sourcing fashion fabrics and manufacturing garments
Sub-aim 4
Explore and describe fashion design entrepreneurs' current practices towards economic sustainability in sourcing fashion materials, designing garments and manufacturing garments

Literature review

The emergence of sustainability has led numerous fashion businesses into altering their organisational approaches in their supply chain (Choi & Li, 2015; Shen, 2014). It is worth bearing in mind that altering supply chain operations is a gradual process. This requires fashion design entrepreneurs to evaluate their supply chain operations and identify gaps and opportunities where sustainable supply chain practices and processes can be integrated. This study focused on three stages of fashion supply chain: sourcing, design and manufacturing.

Sustainable fabric sourcing

Sustainable sourcing firstly involves sourcing sustainable fabrics and secondly sourcing locally manufactured fabrics. It is important to note that every fabric has its individual socio-environmental threats (Fletcher, 2014). Sustainable fabrics include organic cotton, recycled polyethylene terephthalate (rPET), wool, linen, hemp, Tencel or Lyocell and bamboo. Some of the sustainable fabrics that can be sourced in South Africa (SA) are cotton produced by the Sustainable Cotton Cluster (Cotton SA, 2016), rPET, linen hemp (Del Monte, 2021), wool, cashmere and mohair (Twyg, 2020). It is important to note that some of these fabrics are sometimes sourced in SA and processed outside the country and vice versa (Del Monte, 2021).

Sourcing locally is reasonably costed and sustainable because it benefits the country's economy through job creation, reduces shipping costs and reduces carbon emissions (Cadigan, 2014; Fontes, 2016; Ho & Choi, 2012; Sprague, 2015). Over previous years, leading retailers sourced fabrics and clothes from China, and this has negatively affected South African textile manufacturers' capacity (Daniel, 2022). Chinese imports

have weakened the South African textile, clothing, leather and footwear industries (SATCLF) (Mahlati, 2017). In 1996, the SATCI had about 1,600 clothing factories. In 2015, the industry had approximately 900 functional clothing factories (Reuters, 2015). The drop in the number of factories indicates the urgent need for South African retailers and fashion design entrepreneurs to source and manufacture locally to improve the economic well-being of the industry and society.

To date, leading retailers have committed to sourcing locally produced fabrics (Daniel, 2022). When large businesses boost the demand of sustainable fabrics, it will help boost production demand from smaller manufacturers and will make sustainable products more reasonably priced and enable customers to purchase more products (Lee, 2014). Sustainable fashion design entrepreneurs often struggle to find reasonably priced sustainable fabrics (Kawana, 2017; May, 2019). Given that the SATCI struggles with adequate mainstream fabric production for its market, it is logical that there would also be a shortage of sustainable fabric production. Thus, where sustainable fabrics are not readily available and are beyond the fashion design entrepreneur's financial capacity, purchasing sturdy polyester should be an alternative. Polyester is a controversial fabric because it is harmful to the environment, yet it is one of the two most used fabrics in the world (DeHaan, 2016; Fletcher, 2014). It is made from non-renewable resources and pollutes the environment (Niinimäki, 2013; Olajire, 2014). However, polyester manufacturing uses less water than cotton manufacturing (Fletcher, 2014), it is durable and has stronger fibres than cotton (Norway Geographical, 2019). The popularity of polyester, due to its affordability and other characteristics, makes it difficult to stop using this fabric completely. In the fashion supply chain, the sourcing stage is followed by the garment design stage.

Sustainable garment design

Sustainable garment design involves careful consideration of the type of fabric and its effects, the manufacturing, the customer-use phase and disposal of garments to reduce harmful global socio-environmental impacts (Zoltkowski, 2022). Sustainable garment design must consider, among others, "economic, social, and environmental values" (Niinimäki, 2013) and cultural values. Fashion design entrepreneurs determine the look of sustainable garments (Sherburne, 2009), as well as the processes and practices that the garment will experience. Fashion design entrepreneurs can use various methods to design sustainable garments, including, among others, zero-waste design methods, design for multifunctional garment design and design for emotional durability.

Zero-waste design methods do not separate the design stage from the manufacturing stage. Zero-waste design is a method of reducing fabric waste at the design stage by considering the cost of the fabric, balancing garment aesthetics, fit and cost and pattern cutting (Rissanen, 2013). Zero-waste design methods consist of and are not limited to draping, zero-waste pattern layout or jigsaw puzzle methods and subtraction pattern cutting (The Cutting Class, 2013; Ecochic Design Award, 2017). The jigsaw puzzle method refers to laying pattern pieces like a jigsaw puzzle to avoid fabric wastage (The Cutting Class, 2013). The subtraction pattern-cutting method is like the draping method in that both subtraction and draping require the fashion designer to "twist, displace, and feed the fabric back to itself" (The Cutting Class, 2013).

Multifunctional garment design – also known as transformable design and convertible design – involves designing a garment that can be reversible, consisting of various elements that can be added or removed by the wearer depending on the occasion or season (Li et al., 2018). Multifunctional garments provide customers with one garment that can be worn in multiple ways, with each look consisting of a different

aesthetic identity and function. It is possible to reduce customers' purchases of new fashion (Lang & Wei, 2019), extend the life cycle of a garment and thereby reduce the number of garments in landfills (Koo et al., 2014).

Emotional durability is a design concept that intends to create a long-lasting emotional connection between the garments and the users (Chapman, 2015). Involving customers at the garment design stage can contribute to creating an emotional bond with the garment (Durrani et al., 2016) and tackling consumption behaviour (Durrani et al., 2016). The sustainable garment design methods discussed above all focus on reducing fabric waste at either the pre-consumer or post-consumer phase. The garment design stage in the fashion supply chain is followed by the manufacturing stage.

Sustainable manufacturing

In this study, sustainable manufacturing refers to the treatment of fabrics at the pre-consumer phase and of garments at the post-consumer use phase. Fashion design entrepreneurs can employ various methods in the treatment of both fabrics and garments at the pre-consumer and post-consumer phases that can contribute to the sustainability of the TCI in SA. This study focuses on a closed loop approach consisting of reuse and recycling practices. According to Cuc and Vidovic (2011) and Holm (2013), reuse and recycling have environmental, social and economic benefits. The closed-loop approach, also known as the "circular economy", refers to the treatment within the clothing factory of fabric offcuts, waste fabrics and merchandise once the garment is no longer useful to the client (Niinimäki, 2013; Pervez, 2017). Given that the closed-loop approach seeks to reduce landfill and extend the life cycle of fabrics (Norwich University, 2020), it is important to note that this approach can be applied both to fabrics that are considered sustainable and those that are not considered sustainable.

Reusing and recycling are approaches conceived to reduce waste and require fashion design entrepreneurs to re-think their entire manufacturing processes and practices. Reuse approaches also involve reselling, renting and swapping (Hendriksz, 2016). In some cases, before garments can be reused, they need to be repaired, which means providing a repair service to customers. Renting clothes enables companies to increase their profit (Hendriksz, 2016). Recycling means modifying the original attributes of fabrics to make new items (Ho & Choi, 2012). One of the ways fashion design entrepreneurs can implement a closed-loop system is by encouraging customers to bring back their used and unwanted clothes. In addition, South African fashion design entrepreneurs can also practise product-centric recycling. Product-centric recycling means that clothing manufacturers recycle their own textile waste (Sherburne, 2009); this approach is intended to generate profit. In SA, the rising cost and limited access to landfill sites indicate the need for the SATCI to strengthen its reusing and recycling systems (Enviroserv, n.d). According to Hendriksz (2016), many overseas businesses and manufacturers join forces with their local governments to reduce carbon emissions, energy and water consumption, waste and their general environmental impacts. It is crucial that the South African government aids the SATCI in obtaining technologically advanced equipment to improve the industry's recycling capacity.

A few fashion design entrepreneurs identify themselves as sustainable. Furthermore, the current climate challenges facing the world and the state of the SATCI denote the need for more fashion design entrepreneurs to adopt sustainable supply chain operations.

Methodology

In this study, qualitative methods were used to explore and describe fashion design entrepreneurs' awareness and their current sustainable fashion supply chain practices. The six participants for this study were selected purposively based on the following four criteria:

1. Must produce clothes for men or women.
2. Must have been in business for at least three years.
3. Must have an online and a physical store
4. Must not be primarily producing sustainable clothes.

The data collection consisted of semi-structured interviews and analysis of documentation found on the participants' websites or social media pages and was conducted in 2020. Due to financial constraints, telephone interviews were conducted. The participants were informed ahead of time that the interview would be recorded. The interviews were recorded using the Another Call Recorder application. The semi-structured interviews were transcribed, coded, categorised and arranged for analysis (Babbie, 2016).

Credibility, dependability and confirmability were the categories used to maintain the trustworthiness of this study. Credibility was maintained by transcribing the recorded interviews, submitting the transcribed interviews to another researcher and by data triangulation. Evaluation of the data collection, data analysis, and interpretation was maintained through continual consultation and discussion with supervisors. This ensured that the dependability and confirmability of the data were maintained. The results and discussion are provided below.

Results and discussion

The findings of this study are discussed based on the sub-aims as shown in Table 1.

Fashion design entrepreneurs' awareness of sustainable fabrics and garment design methods

Regarding awareness of sustainable practices at the fabric sourcing stage, Participant C was the only participant who indicated that she is not aware of sustainable fabrics, stating, "I'm not clued up about sustainable fabrics, and I'll need to be educated more on their benefits. Smal (2016) pointed out that the local TCI is in the early stages of addressing sustainable practices, so there is not widespread awareness in the local TCI. This may explain why Participant C is not knowledgeable about sustainable fabrics. Participants A, B, D, E and F indicated that their knowledge on sustainable fabrics and their benefits was based on personal research. These participants revealed that they found sustainable fabrics to be more expensive than other fabrics. May (2019) and Kawana (2017) report that sustainable fabrics are indeed expensive. To make sustainable fabrics affordable to micro and small businesses, large retailers must continue to source these fabrics.

Regarding awareness of sustainable operations at the design stage, all the participants showed minimal awareness of various sustainable design methods. Participants B, D and F indicated they are conscious that reducing fabric offcuts is environmentally sustainable. Although Participants A, C and E save fabric offcuts, they were not aware that this is a sustainable design method, and their motivation for saving fabric offcuts was economic. Participant B indicated that he experiments with draping, and this is motivated by the plethora of style options that this method offers. Participant is the only participant who uses the design for emotional durability method. However, this participant is unaware of this terminology and that this

is a sustainable design method. This participant's motive for using this method is to increase sales. All the participants were unaware of the other three remaining sustainable design methods: zero-waste pattern layout, subtraction pattern cutting and multifunctional garment design.

Fashion design entrepreneurs balance economic sustainability and socio-environmental sustainability in sourcing, design and manufacturing

Regarding balancing environmental sustainability and profitability, Participants A, B, D, E and F indicated that environmental sustainability and economic sustainability are connected. Participant A indicated that making a profit while disregarding environmental sustainability is counterproductive. According to Brubaker (2015), entrepreneurs can fix catastrophes by innovating sustainable business models that can influence customers and increase profit. Participant D indicated that a designer must be able to solve problems and produce garments that bring in profit. Some of the participants concurred that balancing environmental sustainability and economic sustainability is a process that requires intentional development and time. Some of the methods that participants use to balance environmental sustainability and economic sustainability are reducing fabric waste, using waste for sellable products and producing garments based on orders only. Participant B stated that profit and environmental sustainability is a process that involves both research and collaboration with other professionals who are knowledgeable about environmental sustainability.

With regards to balancing social sustainability and economic sustainability, all the participants indicated that it is possible to balance these. Some of the methods that the participants use to balance social sustainability and economic sustainability are as follows:

- Intentionally producing garments that are affordable to the target market;
- Developing employees' skills through training workshops;
- Providing rent-free space in the retail store for emerging designers' products; and
- Providing factory space for employees' private clients on weekends.

Regarding balancing employees' salaries and social sustainability, three participants indicated that they pay their employees based on existing systems such as the Basic Employment Act, the Bargaining Council, the Companies Intellectual Property Commission (CIPC) and union regulations. One participant indicated that his employees are paid above the existing minimum wage standard. Two participants indicated that they use their standard based on the current cost of living in SA, the daily operational cost of the business, the level of employee work experience and overtime. Overall, the various avenues that the participants use to empower their employees demonstrate a value for human life and the services rendered by their employees.

Fashion design entrepreneurs' current socio-environmentally sustainable practices at the sourcing and manufacturing stages

Participants B, D and F source sustainable fabrics such as linen, sustainable cotton and wool on a small scale. These participants manufacture sustainable clothes on a small scale for their upper-class customers because most of their customers cannot afford the clothes. All the participants revealed that they manufacture their garments in-house. As mentioned, all participants in this study save their fabric offcuts. Participants A and C reuse their fabric offcuts to make accessories. The remaining four participants indicated that they donate their fabric offcuts to their employees, charity organisations and local

communities. Participants D and F indicated that there should be better systems to manage fabric offcuts. The participants are not always able to donate their fabric offcuts, which results in unused fabric offcuts filling up their studios, and these may end up in landfills. Participant F pointed out that as a small business, it is difficult to prepare fabric offcuts and garments for recycling due to a lack of recycling services in the area they operate in. This may suggest that there is a need for more accessible recycling services to streamline recycling for fashion design entrepreneurs.

This study found that garment reuse and renting are not common practice among the participants. Participant A reports redesigning and reusing garments that do not sell. Participant D reported that they occasionally rented runway garments and found that there is no market for renting clothes. This may suggest that fashion design entrepreneurs can initiate and build a renting culture among customers.

Fashion design entrepreneurs' current economically sustainable practices at the sourcing, design and manufacturing stages

Exploring participants' various economically sustainable practices in fashion supply-chain operations was the fourth sub-aim of this study. Economically sustainable practices in this study were threefold, namely sourcing locally manufactured fabrics, businesses making profit consecutively and overall economic contribution to the TCI. Several international authors Cadigan (2014), Ho and Choi (2012), Sprague (n.d.) and Fontes (2016) acknowledge that sourcing fabrics in the country where your business is situated is one way of improving the local economy. Participant A indicated that they source locally manufactured conventional cotton. Participant B indicated that the socio-environmentally friendly cotton and hemp they source are manufactured locally. Based on participant C's website, some of their African print fabrics are produced by South African fabric manufacturers. Participant F sources linen and conventional cotton in SA. Participants D and F pointed out that the industry needs more textile mills to increase local production. In addition, Participant D indicated that they source wool fibres locally, and the fibres are then sent overseas to be woven and finally imported back to SA. Thus, more wool and leather mills are needed in SA to increase the local TCI production capacity, reduce pollution incurred in shipping and alleviate poverty by providing jobs.

Participants B, C, D, E and F source their synthetic fabrics from South African wholesalers who stock imported fabrics. These findings suggest that imported fabrics are readily available in SA and that there are not enough fabric factories to cater to local demand. Importation of fabrics is not economically friendly because it does not benefit the local TCI and the country and impedes the growth of textile and clothing factories. Given that the SATCI has few textile factories, it is understandable that the fabrics that participants source are often imported. Although South African fabric wholesalers may employ a few people, the countries that produce these fabrics have greater economic benefits (in terms of fabric production), good production capacity for their TCI and employment opportunities for their local communities.

With regards to consistently making a profit, participants A, B, C and F revealed that they have been consistently making a profit, and this has allowed them to remain in business. Participant F indicated that having multiple businesses in one location is one of the ways he manages financially. This may suggest that for some small and medium enterprises, it may be necessary for them to expand their services to deal with tougher business seasons. Participants D and E indicated that they were only able to make a profit after three years, and this was due to assistance from a business rescue specialist. Both participants highlighted

the importance of business skills in managing a business. This suggests that without the right sets of business skills, it is difficult to remain sustainable and make a positive contribution to the local TCI and the country. Regarding economic contributions to the TCI, all the participants in this study indicated they are making an economic contribution to the TCI because they manufacture their garments locally.

Conclusion and recommendations

This study has revealed that fashion design entrepreneurs incorporate minimal sustainable practices in one to two stages of their supply chain operations. The minimal sustainable practices are not solely motivated by the desire to contribute to a sustainable TCI and reduce socio-environmental harm. Regarding sourcing, the study revealed that there is a need to educate fashion design entrepreneurs on sustainable fabrics and where to source them. Sustainable fabric manufacturers and stockists need to be visible in the marketplace, as this will further increase awareness and purchases of the fabrics. The data uncovered the knowledge and skills gap at the garment design stage. It is crucial to empower fashion design entrepreneurs with sustainable garment design knowledge and skills training in the advancement of a sustainable SATCI. Sustainable design methods may increase the quantity and variety of sustainable clothes in the South African retail environment and provide customers with more options. The participants in this study have shown that saving fabric offcuts for reuse and donation is a widespread practice while renting and redesigning garments is rare. Garment renting, repair and redesigning are sustainable manufacturing methods that can decrease clothing consumption and the production of new fabric and reduce landfills. The findings of this study reveal that there is a need to promote garment renting and repair among fashion design entrepreneurs and customers. Additionally, fashion design entrepreneurs can practise sustainable manufacturing by redesigning garments that do not sell or by donating them to charitable organisations. Incorporating minimal sustainable practices and processes in one or two stages of the supply chain operations is a starting point towards building a sustainable TCI. For fashion design entrepreneurs to increase their sustainable contribution to the industry, moderate to maximum sustainable practices and processes need to be implemented at every stage of supply chain operations.

This study had a limited criterion. First, we suggest that future research should include clear target market criteria (upper class, middle class and lower class). Second, future studies should have an equal number of participants who have been operating for the same number of years. Participant B stated that sustainability is a journey that takes years to implement. It can be deduced that as a business progresses, there are unique supply-chain operations that must be modified, adapted and preserved accordingly. Third, a longitudinal study will provide in-depth insight into methods that fashion design entrepreneurs can use to transform their businesses in a sustainable manner. In conclusion, this study is not representative of the entire South African TCI. This study offers valuable insight into the current practice of micro- to-small businesses of mainstream fashion design entrepreneurs' sourcing, designing and manufacturing operations.

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References

Anson, R. (2012). Editorial: Can the shift of textile and clothing production to Asia be reversed? *Textile Outlook International*, 159, 4–9.

Babbie, E. R. (2016). *The basics of social research* (7th ed.). Cengage Learning.

Bomgardner, M. M. (2018, June 15). These new textile dyeing methods could make fashion more sustainable. *Chemical & Engineering News*. https://tinyurl.com/4e2stve6

Brubaker, R (2015, September 9). The next big thing for entrepreneurs: Sustainability. *Forbes*. https://tinyurl.com/3wazpzmy

Cadigan, E. (2014). *Sourcing and selecting textiles for fashion: Sourcing and selection*. Fairchild Books.

Chapman, J. (2015). Prospect, seed and activate: Advancing design for sustainability in fashion. In K. Fletcher & M. Tham (Eds.), *Routledge handbook of sustainability and fashion* (pp. 74-81). Routledge.

Choi, T. M., & Li, Y. (2015). Sustainability in fashion business operations. *Sustainability*, 7 ,15400-15406. https://doi.org/10.3390/su71115400

Cotton SA. (2016, March 10). Cotton is making a comeback. https://tinyurl.com/32rvyvbs

Cuc, S., & Vidovic, M. (2011). Environmental sustainability through clothing recycling, operations and supply chain management. *Operations and Supply Chain Management*, *4*(2), 108-115. http://doi.org/10.31387/oscm0100064

The Cutting Class. (2013, October 25). Subtraction pattern cutting with Julian Roberts. https://tinyurl.com/yexakyxk

Daniel, L. (2022, September 1). Pick n Pay Clothing aims for 60% local by 2028 – years of cheap Chinese imports make that tough. *Business Insider*. https://tinyurl.com/4425y4zd

Dehaan, E. (2016, July 01). Fast fashion: Environmental and social impact. *The Eco Guide*. https://theecoguide.org/fast-fashion-environmental- and-social-impact

Durrani, M., Ravnløkke, L., & Niinimäki, K. (2016, November 23-24). Shared emotional values in sustainable clothing design approaches. In R. Early & K. Goldsworthy (Eds.), *Circular transitions proceedings: A Mistra future fashion conference on textile design and the circular economy, 23–24 November 2016 ,Chelsea College of Arts, Tate Britain, London* (pp. 81-91). Centre for Circular Design. https://tinyurl.com/4mfsn7mx

Ecochic Design Award. (2014, May 27). Reconstruction design technique. *The Ecochic Design Award.* https://tinyurl.com/yfemtjj4

Ecochic Design Award. (2015). Building a sustainable fashion business. *The Ecochic Design Award*. http://www.ecochicdesignaward.com/s/LEARN_Business_ENG_2015.pdf

Ecochic Design Award. (2017, June 15). Zero-waste design technique. *The Ecochic Design Award*. https://tinyurl.com/yk8f7zm2

Enviroserv. (n.d.), Textile, leather and wood. http://www.enviroserv.co.za/industries/textile-leather-wood

Del Monte, C. (2021, January 11). Part Two: Preferred South African plant fibre textiles. Twyg. https://twyg.co.za/part-two-preferred-south-african-plant-fibre-textiles/

Fisk, P. (2010). *People, planet, profit: How to embrace sustainability for innovation and business growth*. Kogan Page Publishers.

Fletcher, K. (2014). *Sustainable fashion and textiles: design journeys* (2nd ed.). Routledge.

Fontes, J, (2016, January 25). Sourcing locally is better: Myth or not? *PRé Sustainability*. https://tinyurl.com/36xwm2tv

Gwilt, A. (2014). *A practical guide to sustainable fashion*. Bloomsbury Publishing.

Hendriksz, V. (2016, May 25). (Re) defining sustainability: Repair, recycle, reuse and reduce. *Fashion United*. https://tinyurl.com/4um9a6xe

Hill, R. P. (2017, September 5). Did you know? Non-biodegradable clothes take 20 to 200 years to biodegrade. *Edge*. https://tinyurl.com/5xxs9fez

Ho, H. P. Y., & Choi, T. M. (2012). A five-R analysis for sustainable fashion supply chain management in Hong Kong: A case analysis. *Journal of Fashion Marketing and Management*, *16*(2), 161–175.

Holm, L. S. (2013). Innovative fashion concepts and the communication of sustainability. In K. Niinimäki (Ed.), *Sustainable fashion: New approaches* (pp. 146-159). Aalto University.

Kawana, J. (2017, November 1). Eco fashion with four local designers, fashion handbook. *Fashion Handbook*. https://fashionhandbook.co.za/eco-fashion/

Koo, H. S., Dunne, L., & Bye, E. (2014). Design functions in transformable garments for sustainability. *International Journal of Fashion Design, Technology and Education*, *7*(1), 10–20. https://doi.org/10.1080/17543266.2013.845250

Lang, C., & Wei, B. (2019). Convert one outfit to more looks: Factors influencing young female college consumers' intention to purchase transformable apparel. *Fashion and Textiles*, *6*(26),1-19. https://doi.org/10.1186/s40691-019-0182-4

Lee, J. (2014, February 25). The latest in sustainable textiles. *Triple Pundit*. https://www.triplepundit.com/story/2014/latest-sustainable-textiles/58881

Li, M. M., Chen, Y., & Wang, Y. (2018). Modular design in fashion industry. *Journal of Arts & Humanities*, *7*(3), 27-32. http://dx.doi.org/10.18533/journal.v7i3.1271

Mahlati, V. (2017, March 16). Local textile industry needs support to be safe. *Independent Online*. https://tinyurl.com/2mr9vw8e

Martinko, K. (2017, April 12), Which fabrics are most sustainable? *Treehugger*. https://tinyurl.com/ab2fwvur

May, J. (2019, April 21). Nipped in the waste: Why sustainable fashion is a big ask for local designers. *Timeslive*. https://tinyurl.com/w4f23ph

Niinimäki, K. (Ed.). (2013). *Sustainable fashion: New approaches*. Aalto University.

Norway Geographical. (2019, July 11). Polyester vs cotton: Differences and comparison. https://norwaygeographical.com/polyester-vs-cotton/

Norwich University. (2020, October 20). How creating a closed-loop supply chain can make businesses greener. https://tinyurl.com/bdc932y3

Olajire, A. A. (2014). The petroleum industry and environmental challenges. *Journal of Petroleum & Environmental Biotechnology*, *5*(4), 2-19. http://dx.doi.org/10.4172/2157-7463.1000186

Pervez, W. (2017). *Design for disassembly - A circular approach.* [Master of Fine Arts in Design dissertation, Virginia Commonwealth University]. https://scholarscompass.vcu.edu/etd/4773/

Reuters. (2015, October 4). Clothing retailers eye local supply. *Independent Online*. https://tinyurl.com/3tjv2ur2

Rissanen, T. (2013). *Zero–waste fashion design: A study at the intersection of cloth, fashion design and pattern cutting* [Doctoral thesis, University of Technology]. https://opus.lib.uts.edu.au/handle/10453/23384

Sandin, G., & Peters, G. M. (2018). Environmental impact of textile reuse and recycling: A review. *Journal of Cleaner Production*, 184, 353-365. https://doi.org/10.1016/j.jclepro.2018.02.266

Shen, B. (2014). Sustainable fashion supply chain: Lessons from H&M. *Sustainability*, *6*(9) 6236–6249. https://doi.org/10.3390/su6096236

Sherburne, A. (2009). Achieving sustainable textiles: A designer's perspective. In R. S. Blackburn (Ed.), *Sustainable textiles: Life cycle and environmental impact* (pp. 1-32). Woodhead Publishing.

Smal, D. N. (2016). The role of environmental sustainability in a design drive fashion industry: A South African case study [Doctoral thesis, Cape Peninsula University of Technology]. https://doi.org/10.13140/RG.2.1.5179.6720

Sprague, J. (2015, April 30). Why sourcing local can help benefit your business in a big way. *American Express*. https://tinyurl.com/58juv7r7

Textile Today. (2013, September 11). Fashion merchandising: Sourcing. https://textiletoday.com.bd/fashion-merchandising-sourcing/

Twyg. (2020, November 10). Part one: Preferred South African animal fibre textiles. https://twyg.co.za/part-one-preferred-south-african-animal-fibre-textiles/

UN. (2015). Universal declaration of human rights. http://www.un.org/en/universal-declaration-human-rights/

Zoltkowski, A. (2022, January 27). What on earth is a clothing supply chain? *Good on You*. https://goodonyou.eco/what-is-a-clothing-supply-chain/

Zu, L. (2014). International perspective on sustainable entrepreneurship. In C. Weidinger, F. Fischler, & R. Schmidpeter, (Eds.), *Sustainable entrepreneurship: Business success through sustainability* (pp. 67-100). https://doi.org/10.1007/978-3-642-38753-1_6

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Connecting female migrants to healthcare systems through smartphone apps: An asset-based design case study translating social capital of community organisations into sociotechnical systems

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Abstract

Workers in community organisations in Amsterdam and Bogota daily use smartphones for personal reasons. However, smartphone apps have been outside their organisational reach. Thus, our paper explores sociotechnical systems' opportunities to bridge community organisations and female migrants to macrosystems such as healthcare systems. Our selected community organisations, Casa Migrante in Amsterdam and Kilombo Yumma in Bogota, were born out of serving peer migrants from Latin American and Afro-Colombian backgrounds. Their services provide support to female migrants who suffer abuse and poverty. Built on cultural practices and social structures of their own, these organisations live on the periphery of macrosystems. They struggle to be appreciated and integrated into macrosystems and digital networks. Thus, our paper highlights the core of their services, using asset-based design, and translates their social capital into sociotechnical systems such as smartphone apps. This is intended to reveal, consolidate and integrate their efforts into wider systems.

Keywords: Community organisations, Female migrants, Smartphone apps, Asset-based design, Sociotechnical systems, Sociotechnical capital

Introduction

Supporting the harsh realities of newly arrived low-income migrants are community organisations. Migrants carry a heavy burden, as they tend to be seen as people taking advantage of opportunities offered by the host countries or cities or as a threat since their presence downgrades the quality of life in neighbourhoods where they settle or brings petty crime to an area (Ryu & Tuvilla, 2018). This creates a general unwelcoming narrative around low-income migrants.

Additional burdens include the expectation from hosting systems that these migrants will be able to stand on their own feet with some limited support, such as language courses or subsidies (Ryu & Tuvilla, 2018). Migrants' abilities to thrive depend on multiple factors, such as strong ties to local networks, institutional entities, labour skills or legal immigration status (Biswas et al., 2012). Due to these internal and external barriers, migrants suffer from significant vulnerabilities, isolation and mental health issues (Hou et al, 2020; Standing, 2011; Syed, 2016).

In the case of female migrants, they fall into the category of 'inferior' workers, involving low-skilled and low-wage labour (Phizacklea, 1983). Their labour conditions impede them from looking for health services in a timely manner. In the Netherlands, migrants avoid seeking healthcare services due to fear of deportation or high financial costs (Van Walsum, 2016). In Colombia, although all citizens are entitled to free access to care, the amount of paperwork and complexity of the public healthcare system make women withdraw from using it. In both cases, the lack of timely access to healthcare services increases health inequity.

Allowing migrants to navigate unfamiliar places occurs with smartphones. These are a lifeline to low-income migrants in the Netherlands, as they help them to stay connected to their loved ones and find their way in new cities. They also allow safety and connectivity, plus sending money to their loved ones in other countries (Alencar et al., 2019; Mazzucato et al., 2008).

The pervasiveness of smartphones, even in low-income populations, has enabled apps such as Tarjimly (https://www.tarjimly.org/) and Shifra (https://shifra.app/en) to provide healthcare information to migrants and translation services. However, limited smartphone apps exist that connect community organisations, migrants and healthcare systems. This phenomenon can be partially explained as small and underfunded organisations suffering from the "organisational digital divide" (McNutt, 2008). This phenomenon refers to the lack of limited organisational information communication tools, which hampers their ability to connect to wider systems and to prove their effectiveness in working with migrants in macrosystems (Riza et al., 2020).

Thus, we ask, how are the services and related challenges of our selected community organisations in Bogota and Amsterdam? How do they establish connections to macrosystems such as the healthcare system? How can smartphones support community organisations in connecting female migrants and healthcare systems? What are the distilled principles for guiding the development of smartphone apps for these community organisations?

Our main contribution is to characterise the services of our selected community organisations. Next, we explore the role of smartphone apps in enhancing those services towards healthcare systems, by distilling principles that respect the sensitivity of female migrants' situations and the social capital and possibilities of community organisations.

Theoretical lenses

We selected sociotechnical systems, sociotechnical capital and collaborative services theories to support our study.

Sociotechnical systems

The term sociotechnical system alludes to the human–machine intricate components found in small-scale devices such as smartphones or large objects and infrastructure such as public transport, the internet or any other technology-based product. The socio part involves people and users, and the technical part is the machine or technologically based aspects (Ropohl, 1999).

Sociotechnical systems are highly embedded in modern life, and society cannot function any longer without them (Edwards, 2003; Ropohl, 1999). Digital sociotechnical systems have achieved high pervasiveness; thus their absence or failure in functioning creates a significant disruption in work and personal life (Amir & Kant, 2018).

Although sociotechnical systems are modelled out of human activities, they impact human relations and interactions permanently. This is because, at the core of sociotechnical systems, the premise is to socialise technology, as well as technical social interactions (Ropohl, 1999). Thus, the human and societal aspects of sociotechnical systems are to be closely considered.

Taking sociotechnical systems' implications into consideration is sociotechnical capital. This concept takes the social capital of communities, understood as social interactions, relations, and motivation to connect

and act together, as the base to transform them into sociotechnical relations. Therefore, sociotechnical systems substitute social structures and interactions of users, intending to enhance their social fabric through technology/machine possibilities (Robison & Siles, 2002).

Furthermore, sociotechnical capital explicitly challenges the assumption that sociotechnical systems such as information communication technologies (ICT) increase people's abilities to act together by simply having them. Instead, sociotechnical capital proposes to use social capital to promote adoption and expected benefits (Resnick, 2001).

Building further on social capital are collaborative services (Baek, et al., 2018). Where services are built out of the capital of human relations. They address social issues and build on social capital by increasing trust among communities, support and care. This capital contributes not only to the resilience of societies but also to social innovations (Manzini, 2007; Meroni & Sangiorgi, 2011).

Collaborative services create not only services but collaborative networks (Baek & Manzini, 2012). These collaborative networks can be explained since capital is something usually implied for high-income segments and yields. However, capital within social capital is the ability of groups to cooperate in horizontal ways within their networks, without hierarchical structures to stop them while creating improved outcomes for them, despite scarce resources (Robison & Siles, 2002).

These collaborative services are usually circumscribed in the culture and social institutions of communities, which makes them invisible to outsiders (Blomberg & Darrah, 2015). Thus, the role of service designers is to carve out those imperceptible services that are ingrained in community discourses and translate them into something new, yet highly recognisable to the community studied, respecting the central human condition, social capital and organicity of their interactions (Sangiorgi & Prendiville, 2014).

To summarise:

- Opportunities are created by digital sociotechnical systems such as smartphones and apps, which are widely used by migrants and community organisations.
- The imperative human and social capital requirements in designing sociotechnical systems, referred to as sociotechnical capital, enhance the capabilities of users such as migrants and community organisations.
- The potential of smartphone apps is to increase integration into macrosystems such as healthcare systems.
- Our role as service designers and design researchers is to carve out those invisible services, coined as collaborative services and next to translate them into smartphone apps to increase appreciation and clarity concerning their contributions to macrosystems and society at large.

Method

We selected three complementary methods for our study. The first is a literature review, which we used to introduce the selected community organisations and frame the problems around them (Creswell, 2014). The second is asset-based design (ABD), which is used for community design and builds on the cultural and social capital of communities (Pei et al., 2022). It differs in particular from human-centred design (HCD), which focuses on mitigating negative aspects of interactions with a focus on momentary functional requirements. HCD is argued to overlook social structures, leading to social and cultural exclusion (Vink & Oertzen, 2018; Wong-Villacres et al., 2020).

Particularly in designing digital sociotechnical systems, the focus should be on leveraging existing assets such as social capital and cultural practices, which are crucial assets for effective community digital interventions (Pei et al., 2022). Thus, ABD aligns well with the concept of sociotechnical capital proposed by Resnick (2001). Moreover, ABD seeks the identification of robust practices already developed by communities to be translated into interventions such as digital sociotechnical systems that fully represent those communities (Cho et al., 2019).

ABD proposes focusing on assets such as care, solidarity, social networks and local expertise (Wong-Villacres et al., 2020), variables selected for answering through our study. The approach is intrinsically participatory, as it intends to work with communities in co-creating their futures and mitigating social and technological inequalities (Wong-Villacres et al., 2021).

In the co-creation of those asset-based futures, we selected paper prototyping techniques as means to represent a service, where its usage and technical aspects become more apparent. Paper prototypes are seen as a means to illustrate smartphone app services and to crystallise the capital from community organisations (Sanders & Stappers, 2014). Thus, paper prototypes are a means of inquiry to shape the social technical capital of such community organisations (Koskinen et al., 2011).

For our data analysis, we selected inductive content analysis (ICA). This method abstracts data into groups to answer the research questions using concepts, categories or themes. ICA is used when the data collection process is open and follows loosely defined themes (Kyngäs 2020). For our inductive analysis, we used the asset variables introduced earlier by ABD of care, trust, solidarity and sharing resources to guide us.

Results

Responding to the vulnerabilities of female migrants are Casa Migrante in Amsterdam and Kilombos in Bogota. Kilombos were founded by Afro-Colombian women trained in African ancestral medicine. Their midwifery roles came along with leadership traits, which made them community leaders. After being displaced from their territory of origin, they founded ethnomedical organisations called Kilombos in Bogota. These provide safe health spaces for Afro-Colombian women and children. Reclaiming their bodily traditions through ancestral midwifery became a form of reclaiming their dignity (Gutiérrez Páez et al., 2017).

Casa Migrante was created by a Christian pastor aiming to support Spanish-speaking migrants mostly of Latin American heritage in Amsterdam, who were affected by language and cultural barriers. In brief, women working in prostitution suffered from significant abuse, and societal stigma knocked on their doors. Regrettably, female migrants working in prostitution are mostly unaccounted for in migration and diaspora studies (Agustín, 2006).

The Christian tradition encourages people to treat neighbours and foreigners with kindness and generosity, to look after the sick, feed the hungry, etc and devote oneself to the service of people in need (Kirillova et al., 2014; Laba, 1991)

Afro-Colombian beliefs have two roots: Catholic Christian tradition, imposed by the Spanish colonisers and sub-Saharan western African heritage. The latter has as its central premise the “ubuntu spirit”, which means “I am because we are” (Hamedani et al., 2012) and is expressed through the ideals of compassion, reciprocity and dignity to build and maintain a community with justice and mutual caring relations. This

strong level of collectivism is also perceived in their identity, which mostly comes from kinship and family ties such as “who I know”, and “what family and community I belong to” (Nussbaum, 2003).

These beliefs are in opposition to Protestant ones embedded in Dutch society and capitalist systems, in which the sooner a person is removed from the support of a mother, a community and religion, the more independent and self-reliant this person will become (Laba, 1991).

These beliefs have transcended religion and become part of neoliberal economic and political models in Colombia and the Netherlands, creating significant contrasts with our selected community organisations, whose beliefs and culture of collective support, care and sacrifice guide their existence, as our next method’s findings illustrate.

Asset-based design findings

In the next paragraphs, we present our findings per organisation, following the selected ABD variables of care, trust, solidarity and sharing resources. First, we present in Table 1 the summary of the description of co-creation sessions and include two photo collages.

Table 1: Description of the co-creation sessions.

	Casa Migrante	**Kilombo Yumma**
Number of co-creation sessions	1	1
Attendants	7	6
Profile	Female migrants, volunteers and personnel	Personnel: nurse, community health worker, healer, ancestral midwife, environmental technician and Matrona
Duration	120 minutes	90 minutes
Consent forms	Signed by all attendees	Signed by all attendees
Raw data	Post-its, notes, audio recordings, paper prototypes and photographs. All data stored in a secure server of Eindhoven University of Technology.	Notes, audio recordings, paper prototypes and photographs. All data stored in a secure server of Eindhoven University of Technology.
Attendees’ recruitment	Carried out by community organisation via social media and WhatsApp.	Carried out by community organisation face-to-face and via WhatsApp.

Casa Migrante

Care: Care happens at various levels:

1. Pragmatic
2. Personal

3. Emotional
4. Healing

1. *Pragmatic care: Language, cultural and process translation*
   Personnel and volunteers help female migrants access the healthcare system by making appointments for them, accompanying them to their appointments, translating from Spanish to Dutch and mediating during the appointment to ensure that the female migrant's articulation of her health needs is clearly understood by the physician and vice versa.

   The nurse volunteer mentioned that the translating services that Casa Migrante provides go beyond language and involve cultural aspects as well. When she joins someone at a healthcare appointment, she supports the migrant to define and voice her needs to the physician in question. Physicians in the Netherlands tend to ask people "What can I do for you?" which is a foreign concept to Latin American communities, who are not used to articulating their health needs assertively. Thus, for a female migrant having to do this on the spot with a stranger such as a physician is a difficult task where cultural guidance is required.

2. *Personal care: Own health last*
   Latin American female migrants tend to neglect their health. This is because they put the needs of others above theirs or because they lack health education and information or enabling conditions to seek healthcare services, such as flexibility at work or fear of deportation.

   Furthermore, some suffer from emotional and/or physical abuse, which diminishes their self-esteem and agency to act. In supporting these women to understand that they need to put themselves first, look after themselves and seek care, this self-awareness is a significant task of Casa Migrante. Workshops throughout the year take place to provide spaces to speak and discuss these abuse topics. Women are usually recruited via a WhatsApp message, and announcements are made via Facebook.

   One participant argued that she did not know that she had health issues. She went to the doctor since her boyfriend told her that she was gaining too much weight. It turned out she had thyroid issues. Now she takes medicine and supplements to manage it. Despite not being with that partner anymore, she has learned to look after herself, especially now that she is by herself in the Netherlands.

3. *Emotional care: Overcoming barriers to find own strength*
   Psychological, social services and doulas are offered to migrants at Casa Migrante. These services are provided during weekends and evenings to accommodate the working life of female migrants. However, the notion of mental health is also diluted for these women. It takes time and pondering for them to engage in therapy. Domestic violence and general abuse are prevalent subjects addressed by these services. The vulnerability of these women makes it hard for them to act on it.

   The doula volunteer at Casa Migrante argued that Latin American women that she sees at Casa Migrante have a lot of trauma and that pregnancy brings significant cultural clashes between Dutch and Latin American healthcare approaches, which ultimately make women not trust their bodies and themselves. In addition, the baby may not be intentionally conceived, creating greater anxiety in women. Thus, a large part of her work is to help these women trust themselves and their bodies.

4. *Healing care: Cohabiting together as a repairing act*
   Some of these migrants do not have stable homes to live in. This can be due to eviction, because women decide to leave their abusive partners or simply because they cannot find a home. Casa Migrante provides an open living room six days a week. After their opening time, 2 pm, people and women flock to the living room and lounge of Casa Migrante. Here they find peers in the same situation, they feel safe, and they have a warm place to be and food to eat. The open living room is the place where all the above care forms connect and cement and where warmth is experienced at an emotional repair level.

Care, therefore, is defined as a journey on which the personnel and volunteers of Casa Migrante embark with female migrants to teach them self-care. This means identifying their health needs, finding a voice within the healthcare system and larger systems, understanding their rights, meeting peers and acting upon their inner strengths. One female migrant argued that she has learned about the benefits of being part of a macrosystem. Currently, she pays for her healthcare insurance, which makes her feel good about herself and secure.

Trust: Next to language support and cultural translation, there is indefinite time and availability to accompany and listen to female migrants. Indefinite time is necessary to understand what they need and to build trust.

Solidarity, sharing resources
Sharing resources is a natural and embedded activity of Casa Migrante. These can be information, time, guidance, food, a living room, etc. In the open living room, people can easily connect and extend their network, acquaintances and peers, which leads to more emotional support and living opportunities for them.

Image 1: Photo collage from Casa Migrante co-creation session.

Kilombo Yumma
Care: Care at Kilombo Yumma happens at
1. Pragmatic
2. Physiological and emotional and
3. Spiritual levels

1. Pragmatic care: Accessing health insurance, removing bureaucratic obstacles
Kilombo Yumma helps female migrants realise the services of the national healthcare system for this population. The nurse and community health workers are trained to know how to manoeuvre the bureaucracy to issue health insurance for their population.

Pragmatic care involves removing the bureaucratic barriers to accessing the national healthcare services in Bogota. The personnel also create referrals, book appointments with health units and hospitals and, if necessary, join them in these appointments.

2. Physiological and emotional care: Complementing western medicine with ancestral midwifery
To Kilombos Yumma's personnel, western medicine is limited in supporting health since it is only approached from the physiological aspects. In their communities, when a woman gets pregnant, her role within the community varies. Having a baby is following an important milestone in the personal and emotional development of a woman, such as getting their period. These milestones also involve an emotional and communal transition that needs to be addressed, which is ignored by western healthcare systems. When women suspect they are pregnant, they consult matrons, midwives or healers to guide them in their process. This process is a journey where chants, massages, and tailor-made pregnancy advice are provided. All of it is aimed at making the woman feel safe, prepared and supported by her community in her transition.

However, ancestral midwifery also involves physiological aspects carried out by midwives. They ask questions and examine the pregnant woman. To be sure, they go through a list of risky conditions in pregnancy such as palpitations, beeping ears, headaches etc. Through their hands, the size of the belly and the position of the baby are checked. If they notice the baby is breech, they have different techniques to reposition him/her. All these practices provide comfort and safety to the population.

As midwives know their limitations, they are very comfortable leaning on nurses' expertise to complement their examination and to refer women with high-risk conditions in pregnancy to the national healthcare system. Women referred by Kilombos to the healthcare systems are closely followed up to ensure they are seen and understand the necessary treatment to be followed. They insist that their work goes beyond the symptoms. It is to guide and accompany women at a deeper level.

3. Spiritual care: Piercing through the soul of everyone in need
The Matrona from Yumma is very explicit about the spiritual care they provide to their population. She describes Kilombo's service as seeing through the eyes of people into their soul to fully understand the person in front of them to best support him/her.

Spiritual care is understood as taking the time to assess the family situation of that person by asking "Who do you live with, who works in the house or earns money, who do you look after, who looks after you and who is your support network?"

In this process sometimes, the female migrant is given a plant to look after. Kilombo's personnel intend to assess the well-being and ability of that person to look after herself and others. Thus, spiritual care is defined as picking through the soul of the person, revealing and assessing her emotional needs.

Solidarity: Connected to spiritual care is solidarity. A core part of their tradition is to heal through group rituals called "sanación", which translates as healing. Many female migrants who visit Kilombo Yumma are victims of war, which means they have been displaced by force and terror from their homes. They may have been raped by armed men. They have witnessed and lost relatives in the war. Thus, Kilombo Yumma is a place where literal and figurative healing takes place. Kilombo Yumma personnel get together around the woman who has been through a very difficult experience. They encircle her and through chants and calling out the inner strength of the person and collective support, they aim to help her to move on. This is accompanied also by active listening, which is a daily activity they carry out at Kilombo Yumma.

The Matrona expressed offence at the fact that the Secretary of Health does not understand nor distinguish between their ritual practices. Some are aimed at healing the person and others are aimed at getting the community in sync by holding hands and sharing their collective good intentions, good health and support.

Sharing of resources: Donations or other goods are something found at Yumma. This is because they are a central resources hub for the community for information, guidance, medicine and support. Many people tend to arrive by lunchtime since they know that the food will be shared. They say: “Where one eats, many can eat also”.

Paper prototype findings

Casa Migrante

The participants recognise their daily use of smartphones and selected apps such as Uber, maps, WhatsApp and calendars. However, they dislike apps with extensive data and complex navigation formats.

The main challenge Casa Migrante identified was the lack of digital tools to connect and coordinate female migrants to volunteers who want to support them. Currently, there is much back and forth between the personnel of Casa Migrante and female migrants before the volunteers get involved.

Thus, the idea of having an Uber service-type app for volunteers and female migrants was defined as essential to increase coordination and the number of female migrants being helped by Casa Migrante. The app would allow the Casa Migrante personnel to do less coordination and provide more social, legal, emotional and practical guidance to other female migrants. Furthermore, this app would fill upa gap in the Dutch healthcare system:

The nurse volunteer argued that in the past there were translators in hospitals to support people, which today do not exist anymore. Thus, the work of the volunteers becomes even more important to culturally and personally support the female migrant be understood and helped properly.

Introducing the app would be done by the Casa Migrante personnel, since the coordinator argued that once the relationship is established with Casa Migrante, female migrants feel comfortable being helped by any volunteer female to go to the doctor, as long as this person can speak Spanish.

Last but not least, the number of meetups between volunteers and female migrants is captured by the app and can be accessed by Casa Migrante. In this way, evidencing their effectiveness in connecting female migrants to Dutch healthcare would be possible.

Kilombo Yumma

All personnel from Yumma use smartphones daily. However, few of them are literate in using computers. They find the paper forms that they need to fill in from the Secretary of Health cumbersome and an extension of racial subordination from macrosystems to them. Thus, they want to have an app on their smartphones.

The purpose of the app is to support Yumma to collect data in easier and more empowering ways. The data variables to be collected need to be defined since they currently see that the paper forms do not represent their ancestral practices in culturally appropriate ways, which subsequently means their lack of representation within the national healthcare system and national data systems.

Thus, to Yumma any sociotechnical app aims to streamline data collection while acknowledging and increasing the representation of their ancestral practices.

Thus, the opportunities identified are:

A. Swift data collection instead of cumbersome forms
B. Representation of medicine and combined approach
C. "Ubuntu" of health
D. Impact through referral data

A. *Swift data collection instead of cumbersome forms*

Currently, they use several forms to collect data from the population to characterise them, their living situation and their health issues. These tasks are done by the Secretary of Health; thus Yumma is the data clerks Moreover, the forms take a long time to fill in, interrupt their flow of practices and affect the human connection, which aims to establish a "spiritual" connection.

B. *Representation of medicine and combined approach*

Kilombo Yumma has a western and ancestral medicine approach, provided by their multidisciplinary team including a senior nurse. Regrettably, the Secretary of Health and its forms undermine their ancestral medicine practices. Instead, there are general questions in the forms such as ancestral medicine next to acupuncture. In the eyes of Kilombo Yumma, this underrepresents them at the local and macrosystem levels. Thus, the smartphone app aims to collect their combined ancestral and western medicine practice as presented in Table 2 below. A limited selection of data fields was selected for this paper to illustrate the sociotechnical system opportunity.

Table 2: Selection of data fields to be included in their sociotechnical system.

Ancestral medicine data	*Western medicine data*
Is the baby well positioned in the belly?	Has the pregnant mother experienced any unusual symptoms?
Is the baby "boxed" in the belly?	Does the pregnant mother have pain down under the belly?
Has the pregnant female received ancestral advice?	Does the pregnant female have a headache?
Did the healer advise the pregnant female?	Does the pregnant female have to bleed?
Does the pregnant female have beeping sounds in her ears?	What is the pregnant female's foetocardia?
Does the pregnant female have blurry vision?	What is the pregnant female's blood pressure?
Are the ankles of the pregnant female swollen?	What is the pregnant female heart rate?

A. *'Ubuntu' of health*

To Yumma, the support network and living situation of female migrants is essential to understand and capture. In their view, when these aspects are not in place and the woman is pregnant, the outcome of the pregnancy will not be good. Lack of good nutrition leads to problems with the baby, to mention one thing. Thus, the questions to be included in the app are:

- Who do you live with?
- Who is your support health network?
- How many people earn an income in your family?
- Who takes care of you (financially and emotionally)?
- Who do you look after?

B. Referrals

Yumma creates many referrals to the healthcare system and other public instances. Thus, they would like to capture the type and number of referrals done monthly, as follows:

- National health insurance
- Subsidy claims
- Food
- Ambulance
- Birth at hospital

One of the main takeaways from the prototypes was the significant interest in creating lists of activities or symptoms in a smartphone app to which they could answer YES or NO to avoid interrupting their routines and rituals. Since they are a large team, their preference is that only one person completes the app, instead of all of them having to enter data, as happens today.

Image 2: Photo collage from Kilombo Yumma co-creation session.

Discussion

Mitigating structural gaps for female migrants to access the healthcare systems in Amsterdam and Bogota are Casa Migrante and Kilombo Yumma community organisations. Despite their deep care and significant efforts to help female migrants, the lack of appropriate sociotechnical systems impedes them from being appreciated beyond their communities.

Due to their type of work and sociotechnical systems' literacy, it was found important to introduce sociotechnical systems to these organisations and female migrants in smartphone apps. Those apps also should follow the features and logic of WhatsApp, Uber, Calendars or Anylist, which are familiar to them.

However, to ensure that sociotechnical systems are fully adopted and meet the core values and practices of these organisations, they should also follow the sociotechnical capital identified and presented next.

Sociotechnical capital principles for community organisations

1. *Jointly defining health needs for appointments to happen*: The identification of the health need is something that requires time and personal interaction with female migrants. Once the health need has been identified, a series of administrative activities comes to make the appointments happen. These are enabled and registered in the apps.

2. *Extending relations:* The more effectively the community organisations can do their work using the apps, the more relations and support are created for the female migrants. The natural horizontal navigation of their own and extended networks is enhanced through the apps.

3. *Feeling represented in large networks:* Naming and capturing their traditions in sociotechnical apps is crucial to create a better understanding and representation of these communities within the society they are part of but invisible to.

4. *Impact in numbers:* Finally, through the apps the select community organisations have immediate access to the activities and their total number is summarised. This can be displayed on their social media page, shared with macrosystems, etc.

The sociotechnical capital principles distilled through our study are built upon several complementary aspects of the social capital and services of the community organisations selected. This capital involves soft and hard aspects, such as defining a health need through active listening and having data (total number of activities) from their efforts. It is clear that for female migrants and community organisations such soft qualities in place enabled the hard ones to happen. Thus, this is replicated and visualised (Image 3). Without sociotechnical capital, the leap for these organisations to more digital and robust sociotechnical systems is questionable.

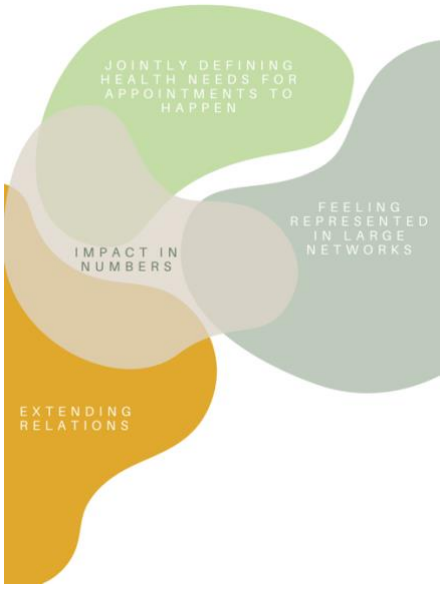

Image 3: Sociotechnical capital pillars for community organisations.

Through ABD and paper prototyping, we carved out the imperceptible services of community organisations in Amsterdam and Bogota. These methods enabled the service designers and design researchers to articulate sociotechnical capital for these organisations. However, these methods have limitations as follow-up is required to assess and further these opportunities for these organisations, which is outside the scope of this paper. These methods created enthusiasm in the community organisations as they opened an invisible door to them. However, without the external support of design and engineering teams, the materialisation of these opportunities continues to be far-fetched to them.

Conclusion

Female migrants from Latin American origin arriving in a new country such as the Netherlands and its capital city, Amsterdam or Afro-Colombian migrants from the Pacific coast arriving in Bogota experience significant social, cultural and bureaucratic barriers to accessing healthcare services. Helping them in navigating this complexity are community organisations. These organisations, however, suffer from a lack of sociotechnical organisational systems to support them in connecting female migrants and the healthcare systems. These organisations also suffer from a lack of visibility and electronic ways to prove their impact on macrosystems. Finally, their social capital and assets of care, solidarity and ability to support female migrants have not yet been captured in sociotechnical systems. Thus, through ABD and sociotechnical capital, we prototyped two digital apps for smartphones, aimed at cementing their core services of community organisations to amplify their services involving deep care for their communities while establishing bridges and ways to prove their efforts to macrosystems. To materialise these initial opportunities, further efforts within and beyond these community organisations are required.

References

Agustín, L. (2006). The disappearing of a migration category: Migrants who sell sex. *Journal of Ethnic and Migration Studies*, *32*(1), 29-47.

Alencar, A., Kondova, K., & Ribbens, W. (2019). The smartphone as a lifeline: An exploration of refugees' use of mobile communication technologies during their flight. *Media, Culture & Society*, *41*(6), 828–844.

Amir, S., & Kant, V. (2018). Sociotechnical resilience: A preliminary concept. *Risk Analysis*, *38*(1), 8–16.

Baek, J. S., Kim, S., Pahk, Y., & Manzini, E. (2018). A sociotechnical framework for the design of collaborative services. *Design Studies*, *55*, 54–78.

Biswas, D., Toebes, B., Hjern, A., Ascher, H., & Norredam, M. (2012). Access to health care for undocumented migrants from a human rights perspective: A comparative study of Denmark, Sweden, and The Netherlands. *Health and Human Rights*, *14*(2), 49–60.

Blomberg, J., & Darrah, C. (2015). Towards an anthropology of services. *The Design Journal*, *18*(2), 171–192.

Cho, A., Herrera, R. G., Chaidez, L., & Uriostegui, A. (2019, May). The "Comadre" project: An asset-based design approach to connecting low-income latinx families to out-of-school learning opportunities. In *CHI '19: Proceedings of the 2019 CHI conference on human factors in computing systems* (pp. 1–14). Association for Computing Machinery.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage.

Edwards, P. N. (2003). Infrastructure and modernity: Force, time, and social organization in the history of sociotechnical systems. In T. J. Misa, P. Brey, & A. Feenberg, *Modernity and Technology* (pp. 185–226). MIT Press.

Gutiérrez Páez, C. E., Arguello Pirazán, E., & Rodríguez Murcia, R. A. (2017). *Análisis de inclusión social de población afro-descendiente en centros de práctica de medicina ancestral Kilombos en Bogotá* [Master's dissertation, Universidad de LaSalle]. https://ciencia.lasalle.edu.co/maest_gestion_desarrollo/118

Hamedani, N. G., Purvis, T. M., Glazer, S., & Dien, J. (2012). *Ways of manifesting collectivism: An analysis of Iranian and African cultures*. University of Maryland. https://mdsoar.org/handle/11603/7293

Hou, W. K., Liu, H., Liang, L., Ho, J., Kim, H., Seong, E., Bonnano, G. A., Hobfoll, S. E., & Hall, B. J. (2020). Everyday life experiences and mental health among conflict-affected forced migrants: A meta-analysis. *Journal of Affective Disorders*, *264*, 50–68.

Koskinen, I., Zimmerman, J., Binder, T., Redstrom, J., & Wensveen, S. (2011). *Design research through practice: From the lab, field, and showroom*. Elsevier.

Kirillova, K., Gilmetdinova, A., & Lehto, X. (2014). Interpretation of hospitality across religions. International Journal of Hospitality Management, *43*, 23–34.
Kyngäs, H. (2020). Inductive content analysis. In H. Kyngäs, Mikkonen, K., & M. Kääriäinen (Eds.), *The application of content analysis in nursing science research* (pp. 13–21). Springer.
Laba, R. (1991). *The roots of solidarity: A political sociology of Poland's working-class democratization*. Princeton University Press.
Manzini, E. (2007). Design research for sustainable social innovation. In R. Michel (Ed.), *Design research now* (pp. 233–245). Birkhäuser.
McNutt, J. (2008). Advocacy organizations and the organizational digital divide. *Currents: New Scholarship in the Human Services*, *7*(2), 1–16.
Mazzucato, V. (2008). The double engagement: Transnationalism and integration. Ghanaian migrants' lives between Ghana and the Netherlands. *Journal of Ethnic and Migration Studies*, *34*(2), 199–216.
Meroni, A., & Sangiorgi, D. (2011). A new discipline. In *Design for services* (pp. 9–33). Gower.
Nussbaum, B. (2003). African culture and Ubuntu. *Perspectives*, *17*(1), 1–12.
Pei, L., Wong-Villacres, M., Erete, S., Rosner, D., Taylor, A., & Wiberg, M. (2022). Who we are and what we have: Designing with minoritized communities. *Interactions*, *29*(5), 5. https://doi.org/10.1145/3557984
Phizacklea, A. (Ed.). (1983). *One way ticket: Migration and female labour*. Routledge.
Resnick, P. (2001). Beyond bowling together: Sociotechnical capital. In J. M. Carroll (Ed.), *HCI in the new millennium*, (pp. 247–272). Addison-Wesley.
Riza, E., Kalkman, S., Coritsidis, A., Koubardas, S., Vassiliu, S., Lazarou, D., Karnaki, P., Zota, D., Kantzanou, M., Psaltopoulou, T,.& Linos, A. (2020). Community-based healthcare for migrants and refugees: A scoping literature review of best practices. *Healthcare*, *8*(2), 115. https://doi.org/10.3390/healthcare8020115
Robison, L. J., Schmid, A. A., & Siles, M. E. (2002). Is social capital really capital? *Review of Social Economy*, *60*(1), 1–21. https://doi.org/10.1080/00346760110127074
Ryu, M., & Tuvilla, M. R. S. (2018). Resettled refugee youths' stories of migration, schooling, and future: Challenging dominant narratives about refugees. *The Urban Review*, *50*, 539–558. https://doi.org/10.1007/s11256-018-0455-z
Ropohl, G. (1999). Philosophy of socio-technical systems. *Techné: Research in Philosophy and Technology*, *4*(3), 186–194.
Sangiorgi, D., & Prendiville, D. (2014). A theoretical framework for studying service design practices: First steps to a mature field. In E. Bohemia, A. Rieple, J. Liedtka, & R. Cooper (Eds.), *19th DMI: Academic design management conference: Design management in an era of disruption, London, 2–4 September 2014* (pp. 2422–2440). Design Management Institute. https://tinyurl.com/mt8c6dpk
Sanders, E. B. N., & Stappers, P. J. (2014). Probes, toolkits and prototypes: Three approaches to making in codesigning. *CoDesign*, *10*(1), 5–14.
Standing, G. (2011). *The precariat: The new dangerous class*. Bloomsbury Academic.
Syed, I. U. (2016). Labor exploitation and health inequities among market migrants: A political economy perspective. *Journal of International Migration and Integration*, *17*(2), 449–465.
Syed, I. U. (2016). Labor exploitation and health inequities among market migrants: A political economy perspective. *Journal of International Migration and Integration*, *17*(2), 449–465.
Van Walsum, S. (2016). Regulating migrant domestic work in the Netherlands: Opportunities and pitfalls. In A. Triandafyllidou (Ed.), *Irregular migrant domestic workers in Europe: Who cares?* (pp. 161–186). Routledge.
Vink, J., & Oertzen, A. S. (2018, July). Integrating empathy and lived experience through co-creation in service design. In A. Meroni, A. M. Ospina Medina, & B. Villari (Eds.), Service design proof of concept: Proceedings of the ServDes. 2018 conference (pp. 471–483). Linköping University Electronic Press. https://ep.liu.se/ecp/150/ecp18150.pdf
Wong-Villacres, M., DiSalvo, C., Kumar, N., & DiSalvo, B. (2020). Culture in action: Unpacking capacities to inform assets-based design. In *CHI '20: Proceedings of the 2020 CHI conference on human factors in computing systems* (pp. 1–14). Association for Computing Machinery. https://doi.org/10.1145/3313831.3376329
Wong-Villacres, M., Gautam, A., Tatar, D., & DiSalvo, B. (2021). Reflections on assets-based design: A journey towards a collective of assets-based thinkers. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW2), 1–32. https://dl.acm.org/doi/10.1145/3479545
Wong-Villacres, M., Gautam, A., Roldan, W., Pei, L., Dickinson, J., Ismail, A., DiSalvo, B. Kumar, N., Clegg, T., Erete, S., Roden, E., Sambasivan, N., & Yip, J. (2020, October). From needs to strengths: Operationalizing an assets-based design of technology. In CSCW '20: Conference companion publication of the 2020 on computer supported cooperative work and social computing (pp. 527–535). Association for Computing Machinery. https://dl.acm.org/doi/abs/10.1145/3406865.3418594

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Place-making alternative social innovations in a rentier state

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Abstract

This work discusses place-making practices as a possible category of social innovation processes in a rentier state. We aim to document alternative processes that conceptualize different forms of participation and human agency. We want to provide a different discourse where individuals' representations of their complex system of symbols, rules, and codifications of living in cities prevail. Thus, we provide a theoretical framework of the city under capitalism to introduce place, space and practice later. We introduce Wachsmuth's (2014) postulation of the city as a "category of practice" to document one representation of urban processes via alternative visualizations in the Emirate of Sharjah, UAE. We use a case study approach to record the complexity of happenings in place-making and its relation to social innovation processes. The results indicate that social innovations and place-making/practices processes encompass collective and collaborative actions of a specific social group toward satisfying a social need. However, the latter differs in intentions, actions and outcomes, as individuals concentrate on intervening places to deal with their longing for home while creating a sense of belonging through a series of rituals in an urban context. This work provides an opportunity to advance the understanding of social innovations in other contexts while offering frameworks that honour immigrants' cultures and social realms and thus bring into being other worlds. Thus, we require epistemological approaches, theoretical frameworks and a dialectic character that offer an alternative to prevent exclusionary conceptualizations of participation.

Keywords: Social innovation, Place-making, Practice, City as a category of practice

Introduction

Cities display the material processes subsumed in the relationship between humans, the environment and the landscape under capitalism. Their design sets urban hierarchies with restrictions and privileges that inhibit or facilitate individuals to struggle or succeed socially and economically. These urban compositions exhibit the fluid reality of material flows of commodities, money, capital and information, which can be transferred and shifted across the globe. Capital accumulation and the locations of its division of labour have a distinctive material landscape (as fixed capital) that is produced as a "thing" in place. This spatiality is as integral to its structure and reproduction as its temporality (Soja, 1989) and is imbued with meaning in everyday social practices. Researchers regard place space as an integral component of social structure and action. They are reconsidering the spatiality of social life, specifically how people act and get attached to the environment (Derr, 2002; Vorkinn & Riese, 2001) and how its changes affect their sensitivity. This reappraisal forces a reflection and reconciliation about how experiences are lived and acted out in place and how they relate to and embed in political and economic practices that are operative over broader spatial scales.

For centuries, people have acted and embodied resilience through creativity and ingenuity, to deal with challenges imposed by nature and humans. Communities have acquired the ability to reduce the impact of, cope with and recover from the effects of shocks and stresses of crises and disasters without compromising their long-term prospects. There is an increasing number of movements, among those social innovation,

across the world where citizens are setting spaces for people to learn a myriad of tools to create, build and devise solutions relevant to their community. Social innovation is one of the most recognized disciplines, as 'it applies new approaches, takes existing processes, and brings new tools to bear in solving the world's most pressing societal challenges. Social innovation seeks to achieve scale by harnessing the power of collaboration to address societal issues in a better and more efficient way' (McKinsey & Company, 2016, p. 1). Citizens might have the aid of governments and/or the empowerment of private philanthropists to gain access to resources that give them agency. These resources might provide them with the means to communicate, collaborate, interact, exchange and co-create value in different types of social initiatives. However, this theoretical framework and conceptual approach might differ depending on the economic system where it is used and implemented and on the inhabitants' migratory status living in that context.

This work explores the complexity of place-making and practice as a locus of social innovation processes in a rentier state. This work has four sections. We start with the theoretical framework of the city as a category of practice to later move to the concepts of place, space and practice and social innovation. Subsequently, we introduce the case study, where we document a practice, cricket, that is representative of the cultural identity and visual discourse of the urban landscape of the Emirate of Sharjah. This practice and the act of place-making exhibit the inner realities (interventions) that describe how things interact and coordinate in the micro-scale realm. The third section consists of the discussion between social innovation and place-making practice, specifically their commonalities and differences in their approaches, practices, processes and requirements. We offer a conclusion and a series of future research recommendations to advance the topic.

Literature review

City as a category of practice

Contemporary urban studies appear to encounter the spectre of universalizing theory, which embodies an extensive line of Eurocentric epistemologies that might perpetuate narratives of their embeddedness within social processes. Those studies generally explore spatial arrangements and social patterns of particular urban places leading to an all-encompassing, acontextual and neocolonial metanarrative. Thus, urban theorists are increasingly questioning and challenging the sites and biases upon which urban studies have been based (Davis, 2004; Robinson, 2002, 2003; Roy, 2009; Stren, 2001; Wachsmuth, 2014). They argue that universalizing theory might ignore the power-laden realities of differences, place specificity, everyday life, struggles and experiences of inhabitants (Brenner, 2018). Researchers studying cities of the global South bring relevant, atypical and different analyses since their work manifests a closer consideration of how theory and site interact and how cities are informed. Their research provides evidence that the so-called third-world urbanization or underdevelopment urban theory no longer fits the Euro-American theoretical approach. They demonstrate that contemporary urban forms of analysis are ill-equipped to describe the conditions they aim to decipher (Angelo & Wachsmuth, 2015; Roy, 2009). They argue that 'methodological Cityism' projects fail to fully comprehend the varied impacts of urbanization processes because they assume a particular set of social, economic and power relationships endemic to the concept of the city that no longer hold.

Wachsmuth (2014) postulates that the city ought to be treated as a category of practice, an ideological representation of urban processes, rather than a category of analysis. This view offers the opportunity to observe people's relationship to urbanization processes rather than a category of analysis adequate to describe these processes. It shifts the explanatory task away from abstracting complex urbanization

processes into objective city moments. It centres on mapping how these processes are experienced and interpreted by social actors in everyday life and formed into practical representations (Wachsmuth, 2014). The city will look more like a cognitive map (Lynch, 1960; Mazer & Rankin, 2011) that depicts spontaneous representations that arise directly from everyday urban spatial practice. For example, researchers studying the ambiguous and expanding borders of the globalized Middle East explore traditionalism, cosmopolitanism and modernity. Those examining modernity document the landscapes of malls, gated communities, Islamicized public spaces and informal settlements (Alawadi, 2014; Elsheshtawy, 2010; Rab, 2011; Singermann & Amar, 2006).

We mapped objective city moments of spatial practices and representational spaces to observe people's relationships to urbanization processes in the Emirate of Sharjah. The objective was to document how social actors experience and interpret these processes in everyday life and form them into practical representations of social action. We studied the United Arab Emirates (UAE) because it is a rentier state, wherein the rental of oil prospects or their exports provides one of the primary incomes. We will attempt to define a rentier state. It is a challenging endeavour as each economy has some elements of rent, and the state of the oil phenomenon's impact differs on the state's nature in the Arab region. First, a rentier state is thus an economy where wealth is created around a small fraction of the society (Beblawi, 1987). The state, the principal rentier in the economy, plays a crucial role in moving economic activity. The rent held in the hands of the government is redistributed to the population. Citizenship becomes a source of economic benefit. In 2020, the UAE had a population of 9.282 million and 94,7997 were Emirati citizens (UAE Governmental Portal, 2021).

In this context, noncitizens furnish the managerial and service labour for the country's day-to-day functioning. Nevertheless, the social and cultural aspects of migrant life lie outside Emirati society, as migrants are temporary. Hence, we researched locations in the Emirate of Sharjah where practices alter, bend or reflect a distinct way of life. We selected those practices that exhibit the mediation of everyday experiences through inhabitants' interaction and coordination in the micro-scale realm. Our objective is to offer different spatial narratives from the all-encompassing, acontextual and neocolonial metanarratives that might perpetuate narratives of their embeddedness within social processes. We focus on those narratives that unveil the realities of differences, place specificity, everyday life, struggles and experiences of inhabitants (Brenner, 2018).

Place-making

Scholars have studied place from the viewpoints of anthropology, human geography, sociology, etc., as it is not an abstract entity and influences (and is influenced by) broader social, economic and political processes and developments. Place interlinks with an assemblage of elements co-existing in a specific order (de Certeau, 1984), has multiple dimensions (Entrikin, 1991), qualities (Relph, 1976; Seamon & Sower, 2008), and varying spatial and temporal scales (Lefebvre, 1991; Soja, 1991). It is the terrain where the consumption of space (capitalist utilizers) and the production of enjoyment (community users) clash, and basic social practices, like tradition, self-identification, solidarity, social support, reproduction, etc., are lived out. These social spaces become a force of production, representing a network of exchange and a flow of commodities, communication, energy and resources. In the opinion of Lefebvre (1991), the production of space is the process and the outcome of the process that encompasses the totality of flow and things of the capitalist material geographical landscape. The interaction between place and space is crucial, as the

space of the whole takes on meaning through a place, and each part (each place), in its interconnection with other parts (places), engenders the space as a whole.

A sophisticated body of theory has explored 'place' and the 'production of space'. Both concepts are structured dialectically in the human experience since the comprehension of space is related to the places we inhabit and derive from the meaning itself (Relph, 1976). The concept of place is regarded as a location created through human experiences, which requires a space filled with meanings and goals. A place has an unlimited size as it refers to an event (has taken place), a myth (said to have taken place), or a history (authority) that happened in a location. Space is more abstract as it is an assembly of coexistent elements in a particular order to spatially focus on human intentions, experiences and actions (Seamon and Sowers, 2008). Lefebvre (1996) argues that the production of space also occurs through representations of the everyday, lived experience of space and the collective meanings of representational spaces (Image 1).

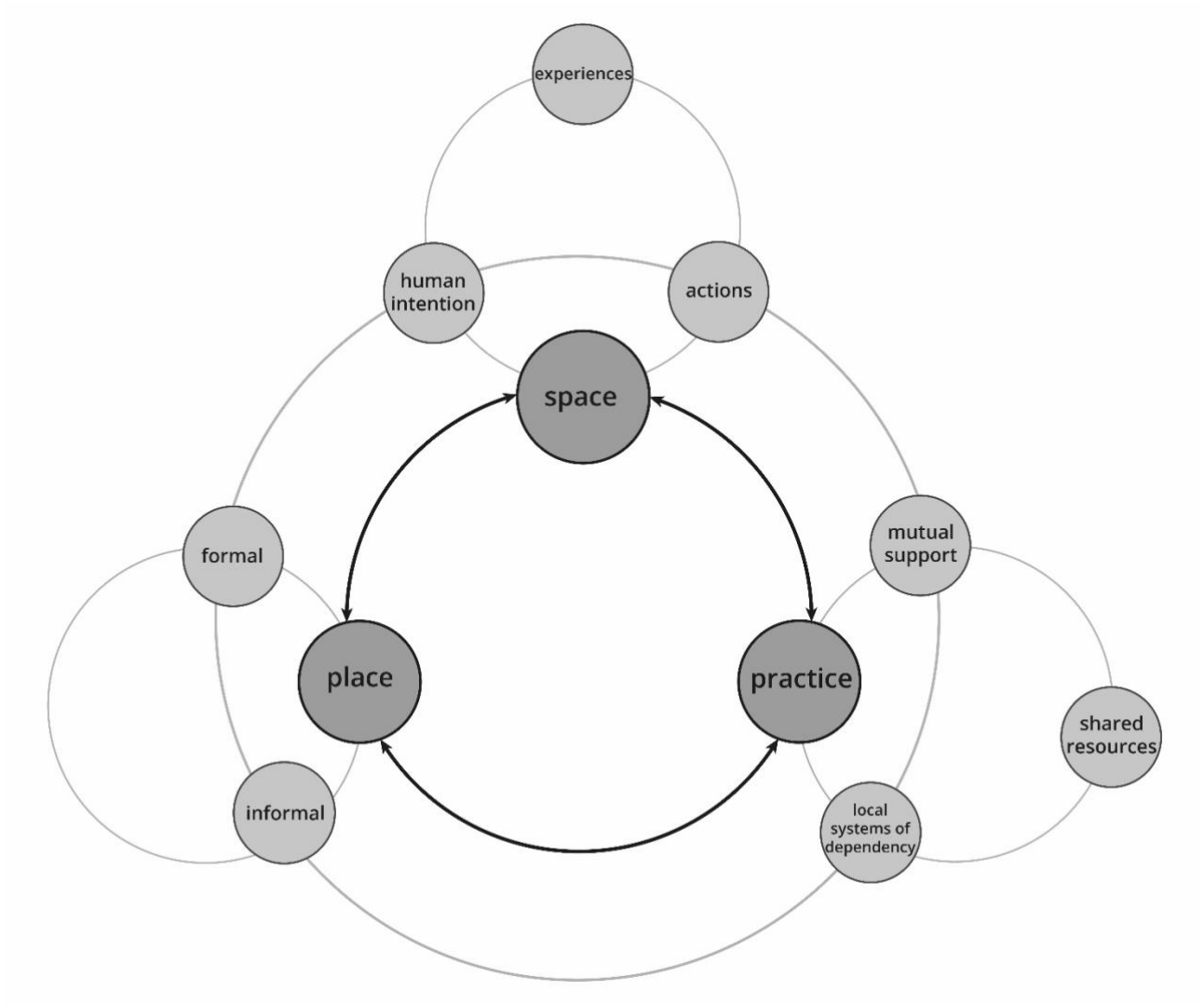

Image 1: Constellation of elements of place-making.

People undertaking daily rituals – mundane/extraordinary, random/staged – are transforming urban processes and forms while creating places of belonging. In these places, individuals carry out different practices, which are an intrinsic part of the generation of space (Lee & Ingold, 2006; Schatzki, 2001;

Sheringham, 2006). Practices reflect the total nexus of interconnected human practices, including knowledge, meaning, human activity, power, language, social institutions and historical transformation (Schatzki, 2001). Practices are not just individuals undertaking activities or actions dislocated from a bigger context but are fundamental for understanding the society they are part of (Pink, 2012). They display rituals in which individuals repeat a series of actions involving gestures, words and objects performed in a place (Aractingi & Le Pape, 2011). They are also media for individuals to attach cultural depth to their local realities by layering an attachment to a collective and accruing a sense of belonging.

In the design of a city, professionals must distinguish between place and space since both are embodied in material processes. Professionals need to understand their mode of determination and their mediation, the place construction and transformation and how they forge together in a dialectic unit. Studying a place from a political stance could reconcile how experience is lived and acted out in a place and how this relates at different scales. We could question: Whose place? What kind of place? Which place? Professionals are designing for inhabitants. Lefebvre (1991) proposes the 'conceptual triad' to contemplate other modalities of space within a single theory. The aim is to expose, decode and read space by differentiating their dialectical character of interaction. (i) Representation of space refers to the conceptualized space constructed through the discourse of professionals and technocrats. It comprises the various codifications and objectified representations used and produced by these agents. (ii) Representational space is the directly lived space experienced through the complex symbols and images of the inhabitants and users. This space overlays the physical space and the symbolic use of its object, unveiling some underground, clandestine side of social life, while (iii) spatial practices are those secret society's space. These practices are revealed by deciphering spaces through people's perception of their daily reality concerning space usage. They structure everyday life and a broader urban reality ensuring societal cohesion, continuity and specific spatial competence.

Social innovation

The term social innovation (SI) is an active and evolving concept in praxis and theory, which raises debates about its approaches, practices, processes and requirements. Its realm has extended from the public and policy level to international academic and scientific study, as its application cuts across all fields and sectors of society, such as civil society, educational institutions and the public/private sector. Its theoretical underpinning draws inputs from economics, management, business and technology innovation, human organization, economic diversity, social anthropology, sociology, political studies and governance, among other fields of knowledge. The ecosystems for SI actions can be found in socio-technical approaches, socio-behavioural fields and creative arts documented around the world (Beham et al., 2009; Goldenberg et al., 2009; Howaldt & Schwarz, 2010; Nicholls & Murdock, 2012). Consequently, its discussion demands integrating the many different and even conflicting meanings of social practices offering a broadness that is crucial for understanding the concept.

Since the early 19th century, the term SI has been associated with social reforms and revolutions in education and work. Its meaning has evolved with the advent of new behaviours and practices encompassing all areas of society. Recently, the term has served to label any social phenomenon or process of change (Bernal & Cecchini, 2017). This plethora of vastly divergent subject matter and problem dimensions subsumed under the same heading without making distinctions between meanings, conditions, genesis and diffusions, affect the development of a concept. Distinctions are important because they help to understand the concept when it is implemented under specific living conditions experienced by

a population. In broad terms, SI aims at activating, fostering and utilizing the innovation potential of the whole society to face the neglected, poorly served or unresolved services/actions organized by the state (Andrew & Klein, 2010; Goldenberg, 2004; Morales Gutiérrez, 2009; Mulgan, 2006; Neamtan & Downin, 2005). It is distinguished from other manifestations of social change, as certain factors drive its initiatives in an intentionally targeted manner to satisfy better or answer needs and problems than is possible based on established practices.

SI demands a collaborative effort in the learning journey toward developing a social innovation solution. This journey might have different facets depending on the socioeconomic and cultural environment and the institutions of a nation. However, the outcomes aim to satisfy human needs, raise awareness about and open access to human rights, reach a concrete achievement and improvement, create a long-lasting and broad impact and enhance institutional capacity to learn (Table 1). Its effects lead to the development of social capital, social cohesion, empowerment and democracy and cause necessary changes in the relationship and development of cross-sectoral partnerships. Their realm extends from the public and policy level to academic and scientific study, as its application cuts across all fields and sectors of society. These cross-sectoral collaborations among the public sector, civil society and the private sector are crucial to reaping their full potential.

Table 1: Social innovation common factors.

Have a collective and collaborative action
Contribute to satisfying human needs that have not been considered or satisfied
Raise awareness about and open access to human rights
Enhance human capabilities
Empower a particular social group
Reach a concrete achievement and improvement
Have a long-lasting and broad impact
Be social by both their means and their end
Require learning and institutional capacity to learn

SI relies on the interaction of many actors (civil society, public sector, private sector, government, financing bodies and academic institutions) to achieve different impacts or effects (local, national, global and glocal), using a specific governance model (centralized, multilevel or social network) to address needs. These actors are deemed to give analytical primacy to systems and processes of change that use communities' knowledge and cultural resources to generate innovation. This type of innovation becomes social when it is accepted and diffused in society or certain societal sub-areas, and later it becomes institutionalized as a new social practice. Image 2 conceptualizes the series of stages, stakeholders and actions involved in the SI process. In each of the five stages, different actors interact and collaborate by exchanging information and cooperating to deal with the various milestones posed (Domanski & Monge-Iriarte, 2017; Murray et al., 2010). For example, citizens are suppliers of information about their needs and contributors to developing and improving the outcomes generated. They are committed to collaborating, learning and trusting others to exchange and gain knowledge that fosters dialogues that allow them to meet their needs.

The nature of this process raises questions about who is responsible for leading the efforts to generate, implement and evolve SIs and how those who are accountable can contribute to its success.

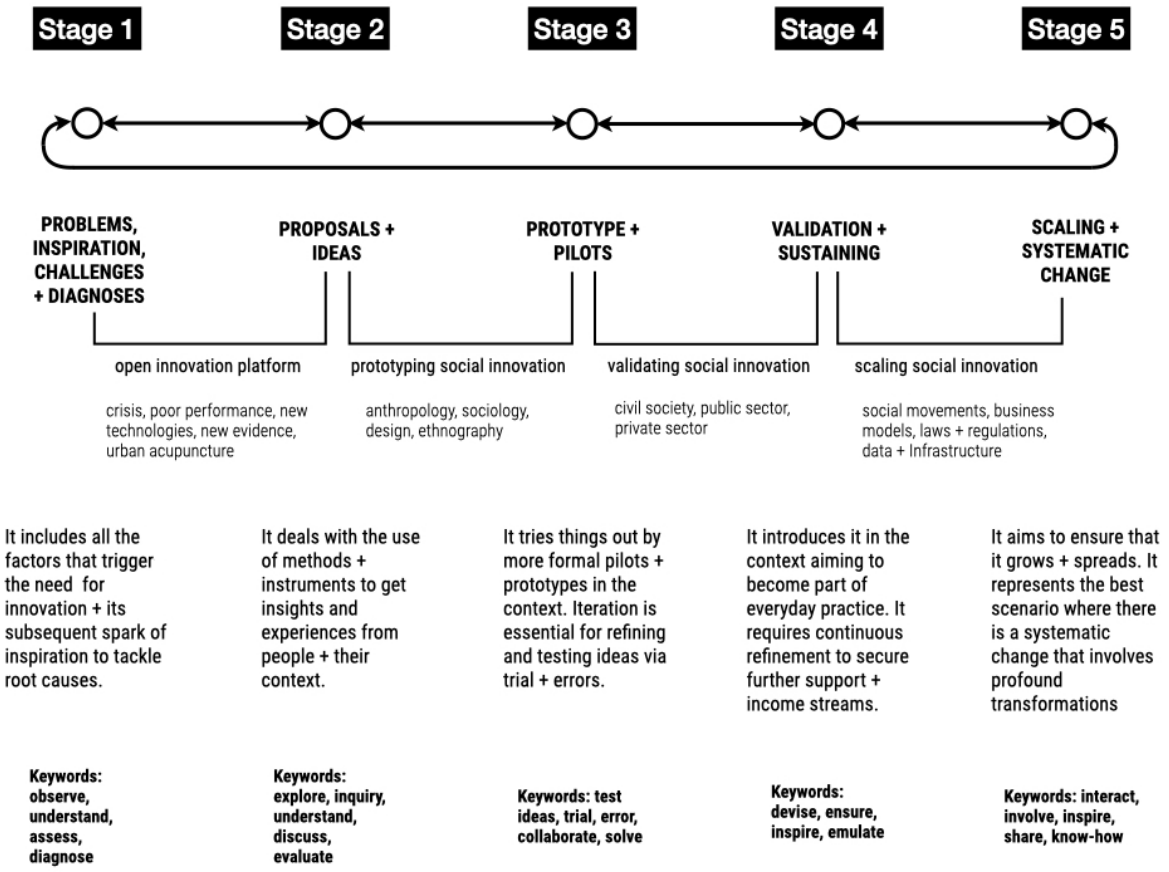

Image 2: Stages of social innovation.

Responsible innovation

Responsible innovation is an instrument that organizations can use to properly embed scientific and technological advances in society without causing more problems than they solve. Managers require sophisticated approaches, frameworks and resources to identify and define how their organizations should innovate, where they could innovat, and how they should think about adapting or configuring their innovation process. This implementation calls for a commitment to being anticipatory of those intended and potential unintended impacts, reflective about the underlying purposes, motivation and potential impacts, inclusively deliberate to dialogue, engage and debate with the public and stakeholders and responsive in the inclusive, open and collective process of reflexivity (Owen et al., 2013). Therefore, managers have to be aware of understanding the norms, laws and standards within a specific society (context) to ensure the avoidance or prevention of impacts and behaviours during the implementation of innovations. Above all, they must reflect on the dilemmas and unintended and undesirable economic and social impacts of innovation, such as the undercover value of cheap labour, labour reproduction and ecological externalities. In this case, we regard it to address SIs.

We used design thinking (DT) and anthropology to introduce responsible innovation to sensitize practitioners about the negative implications of neoliberal capitalism. We argue that anthropology can assist DT in bringing other types of knowledge and kinds of experiences and expertise to understand groups

from a cultural perspective (holism) and comprehend behaviour from the participant's point of view (cultural relativism). Postmodern anthropology and interpretative anthropology approaches enable individuals to explore the invisible, silenced others within the cultures and domains they are excluded from (Said, 2014) and historically specific processes to express their challenges (Coombe, 1991). They provide instruments to depict the social world in ways those in specific positions live, negotiate and define meaning and value in everyday life. This reflective process is relevant to address and inquire more significant systematic questions (Image 3). Therefore, DT and anthropology contribute to democratizing the SI process by addressing power and vulnerability from a plural view.

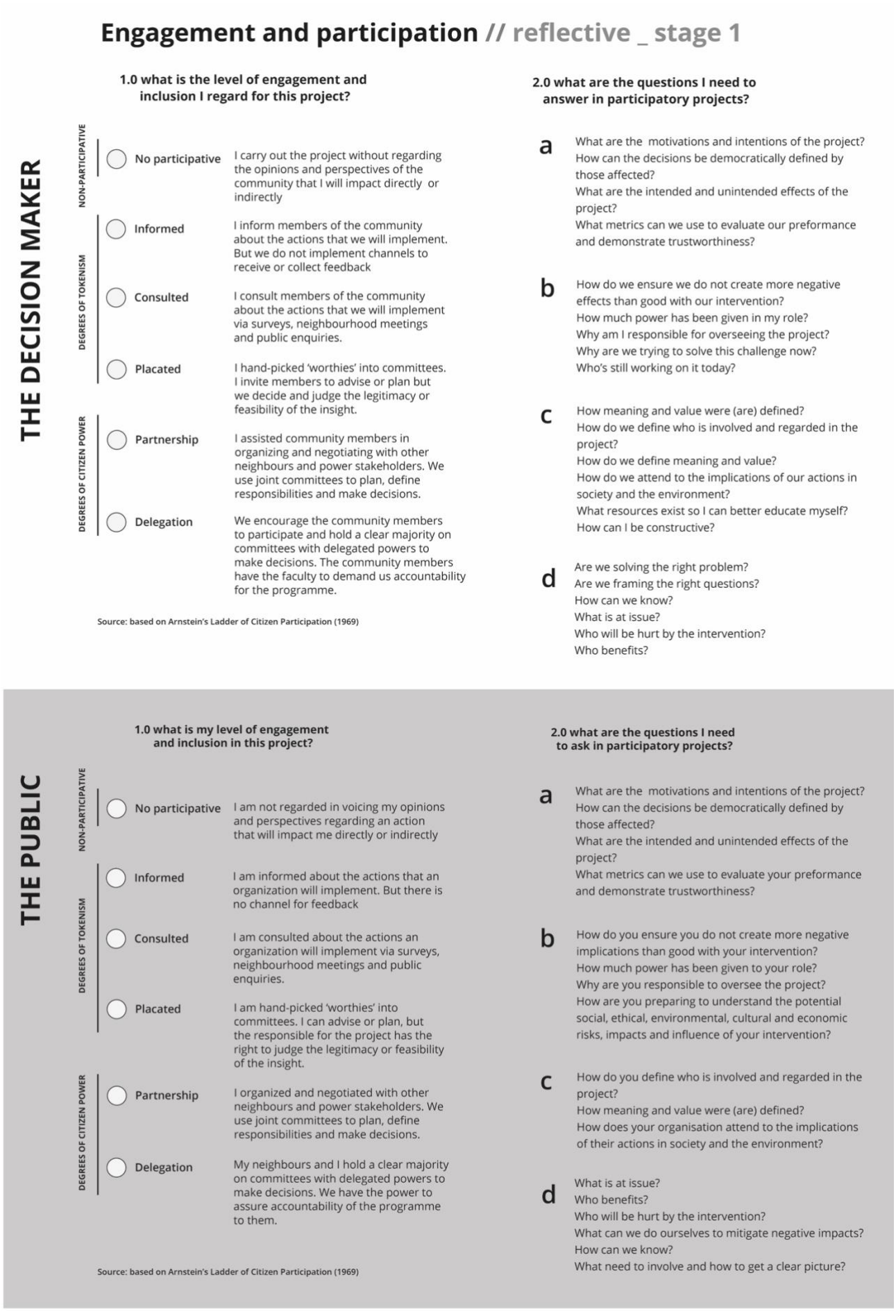

Image 3: Engagement and participation stage.

Case study

Our case study is located in the Emirate of Sharjah, one of the seven Emirates of the UAE, which shares a border with the Sultanate of Oman, the Kingdom of Saudi Arabia, the Gulf of Oman and the Persian Gulf. Sharjah is the third most populous emirate. Its history dates back over 120,000 years since human settlements were found in the Mleiha area. It has been a commercial and trade city, a political port and a cultural (identity) hub. In the past three decades, the ruler has invested heavily in regenerating the city's old town section as a public art and culture site leading to being regarded as "the Cultural Capital of the Arab World" by UNESCO in 1998 (Foreign Affairs, 2008).

The UAE has one of the most significant number of South Asian immigrant populations (59.4%), including Indian (38.2%), Bangladeshi (9.5%), Pakistani (9.4%) and others (2.3%). The UAE experienced large-scale migration for construction involving mainly male migrants in the 1970s. This Asian migration to the UAE has become more differentiated over time. For example, many migrants from these nations remain low-skilled labourers, others have semi-skilled and skilled jobs, while others have professional or para-professional qualifications. These migrants are pushed to migrate due to economic and social issues, such as poverty or the incapacity of local economies to generate jobs for them. They are attracted to migrate because it represents an opportunity to send money back home and have better quality of life for their families. These groups have few places to create a sense of community. Among those is the intervention of places to play cricket. There is a diaspora of migrants from South Asian countries, India, Pakistan, Bangladesh and Indonesia, among others, that intervene in empty spaces, alleys, parking lots and urban voids across the UAE. They use these spaces to practise cricket (ritual) every Friday from 5:00 am to 9:00 am. In this case, we will describe a synthesis of various groups intervening spaces in the Emirate of Sharjah.

They repurpose the place into a temporary informal and regulated cricket pitch. They use any object available, such as bags with objects, bricks, rocks or lime, to make evident and alive their landmark of practice, the 22-yard cricket pitch. Inhabitants bring their wickets, bats and balls to set imaginary geometric boundaries. In some cases, the external boundaries overlap when other groups practise nearby. The practice is masculine-centric, attracting blue-collar, construction and administrative employees. Their weekly practices become rituals as members perform a social liturgy in a codified, repetitive and consistent way for decades – meeting in a specific location and bringing along objects, dressing behaviours, norms and rules. These practices show a communal negotiation, resolution and network of exchanges with clear signs of specific diasporas, ethnicity, status and experience. Cricket unifies the space and places through the conscious process of structuring values, memories, goals, behaviours and skills relevant to this location. Informal pitches exemplify the representational space via complex symbolic and lived experiences.
In contrast, the spatial practices unveil the invisible side of immigrants' social life, creating a collective memory of their identity (Image 4).

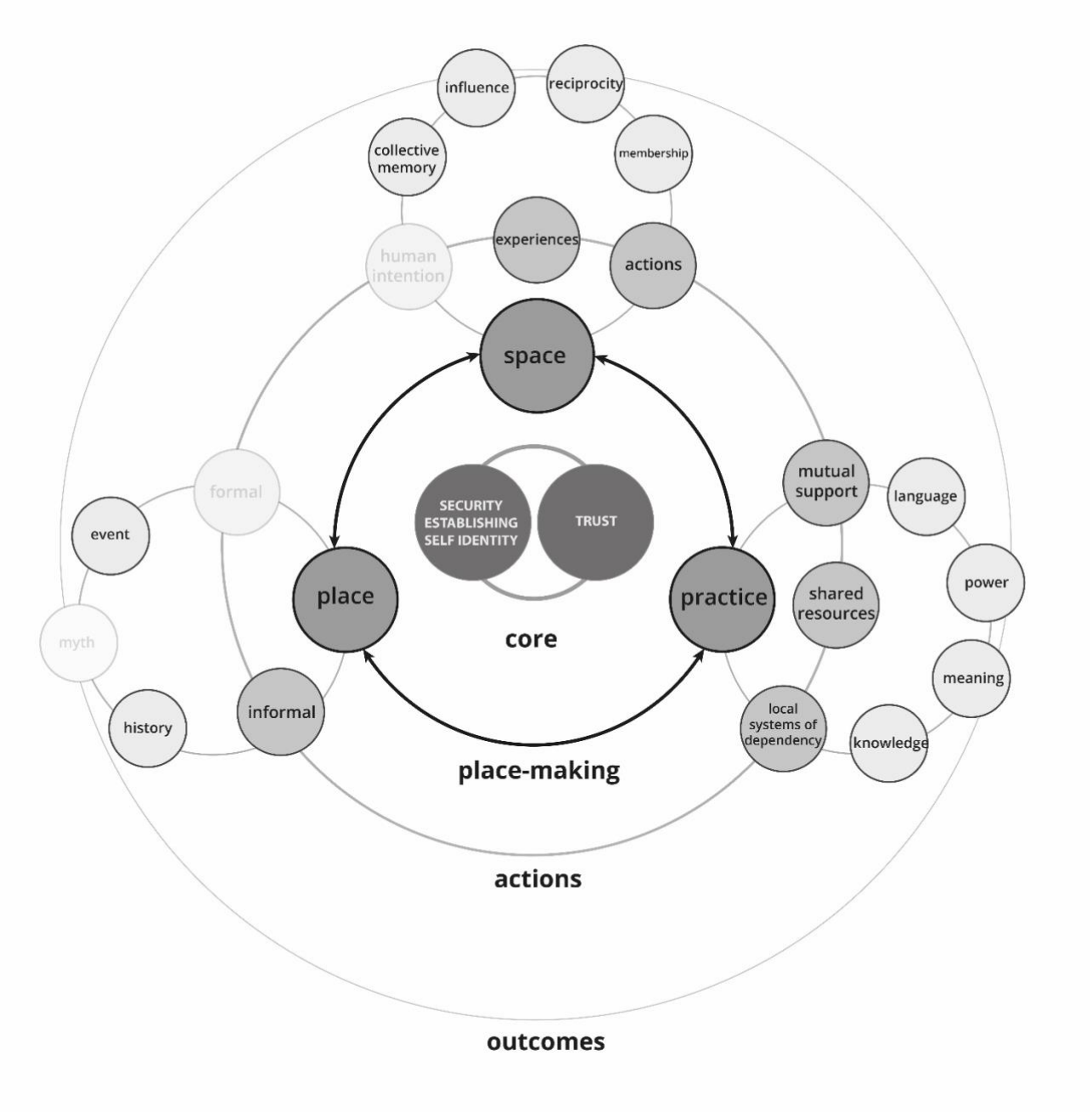

Image 4: Cricket place-making.

This practice-place represents an interesting case of transformative threshold and a locus of potential in SI since there is a communal negotiation and resolution of an array of complexities. The place-making practices (cricket) share similarities in the rituals and how cricket is a medium to build trust, security and establish self-identity as a migrant. They use clothing and equipment that represents the visual identity of their team's notions of craft, aesthetics and identity. It also exhibits clear signs of individuals' diaspora, status and experience. It is inferred that members of different diasporas create trust networks to maintain their practice since their immigrant status pushes them to forge trust. Members might have different hierarchies and roles in organizing the games and inviting new members. However, these place-making practices vary depending on the nature of the spaces, as they have unique characteristics in their flexibility of use and negotiation that enable different type of appropriation.

We identified two types of typologies in the nature of the SI intervention. First, semi-consolidated SI, where the space intervened is planned and designed for a specific purpose (e.g. construction or demolished area, etc). Even though private or governmental entities regulate the space, members can borrow it to build a formal and regulated playground. This urban space is claimed by residents who do not have the means to become members of a formal space of practice. Members are empowered to change or modify the space where they can formally undertake their rituals. Membership for this space can be earned through an invitation to work relations or their active participation in continuously improving the place of practice. Second is consolidated SI, where the space is informal, and members borrow it to transform its real purpose into a temporary informal and regulated playground (e.g. an informal parking area). This urban space is claimed by residents who do not have the means, capabilities or interest in designing a formal space of practice. They use the space unauthorized for a period of time to undertake their rituals (cricket pitch). Memberships are obtained through the sporadic discovery of the group, word of mouth or personal invitation. Members claim their space and command level through seniority and consensus.

Discussion

This work explores whether place-making and practices are alternative ways of SI processes in the UAE. To this effect, the work examines the key elements and factors innate in SI and its process and place-making and practice and processes. Table 2 shows similarities in the collective and collaborative actions required from a specific social group to satisfy a social need not considered. In both cases, social groups (and other SI actors) focus on using social means to develop social outcomes that raise awareness about human needs. Indeed, there are differences in their approaches, as SI has stakeholders, multiple actors and institutions that might support different endeavours. They rely on cross-sectoral collaborations between the public sector, civil society and the private sector to learn and grow. However, it also means that the institutional agency has a willingness and capacity to learn. Their processes aim to enhance human capabilities to empower a particular social group to reach a concrete achievement and improvement that is long-lasting and has a broad impact.

In comparison, place-making is an approach initiated by and for social groups as a self-agency activity to deal with their lived experiences as immigrants. The group members create learning through their ritual experiences that are shared formally or informally through verbal narratives, such as events, histories or myths, that are only understood by members experiencing them. Place-making is a vehicle to acknowledge and celebrate the invisible side of their social life to create mutual support and shared resources to secure establishing a self-identity. Their goal is to preserve their cultural identity by creating a space to recall home and a sense of belonging in the micro-scale realm.

Table 2: Social innovation and place-making: common factors.

Social innovation	Place-making
Have a collective and collaborative action	Have a collective and collaborative action
Contribute to satisfying human needs that have not been considered or satisfied	Contribute to satisfying social needs that have not been considered
Raise awareness about and open access to human rights	Raise awareness about the complex symbolic and lived experiences of immigrants

Enhance human capabilities	Unveil the invisible side of the social life of immigrants
Empower a particular social group	Create mutual support and share resources of a particular social group
Reach a concrete achievement and improvement	Reach security by establishing self-identity
Have a long-lasting and broad impact	Create local systems of dependency at the micro-scale realm
Be social by both their means and their end	Be social by both their means and their end
Require learning and institutional capacity to learn	Embed self-agency and exercise collective learning capacity

When we analyse the SI process along with the place-making practice process, we observe that despite similarities in the collective and collaborative actions of a specific social group toward satisfying a social need, there are differences in the stages, intentions, actions and outcomes. If we use the case study as a singular example (Image 5), we can notice that the first stage starts as an action dealing with longing for a place or situation that might recall home. To start a practice, they must connect with other individuals of a similar social group to create a community. The second stage focuses on creating opportunities through exploring, inquiring and discussing where they can intervene to perform their practice. The third stage consists of intervening in a place to perform a practice for a specific time, leaving the physical area intact after completing it. The fourth stage concentrates on sustaining the practice by securing group members to get involved and participate in the rituals to sustain them and create collective action. Finally, the last action concentrates on producing possibilities through creating local systems of interdependency where members of the social group interact and can maintain their language, meaning, knowledge and wisdom and thus create other plural worlds.

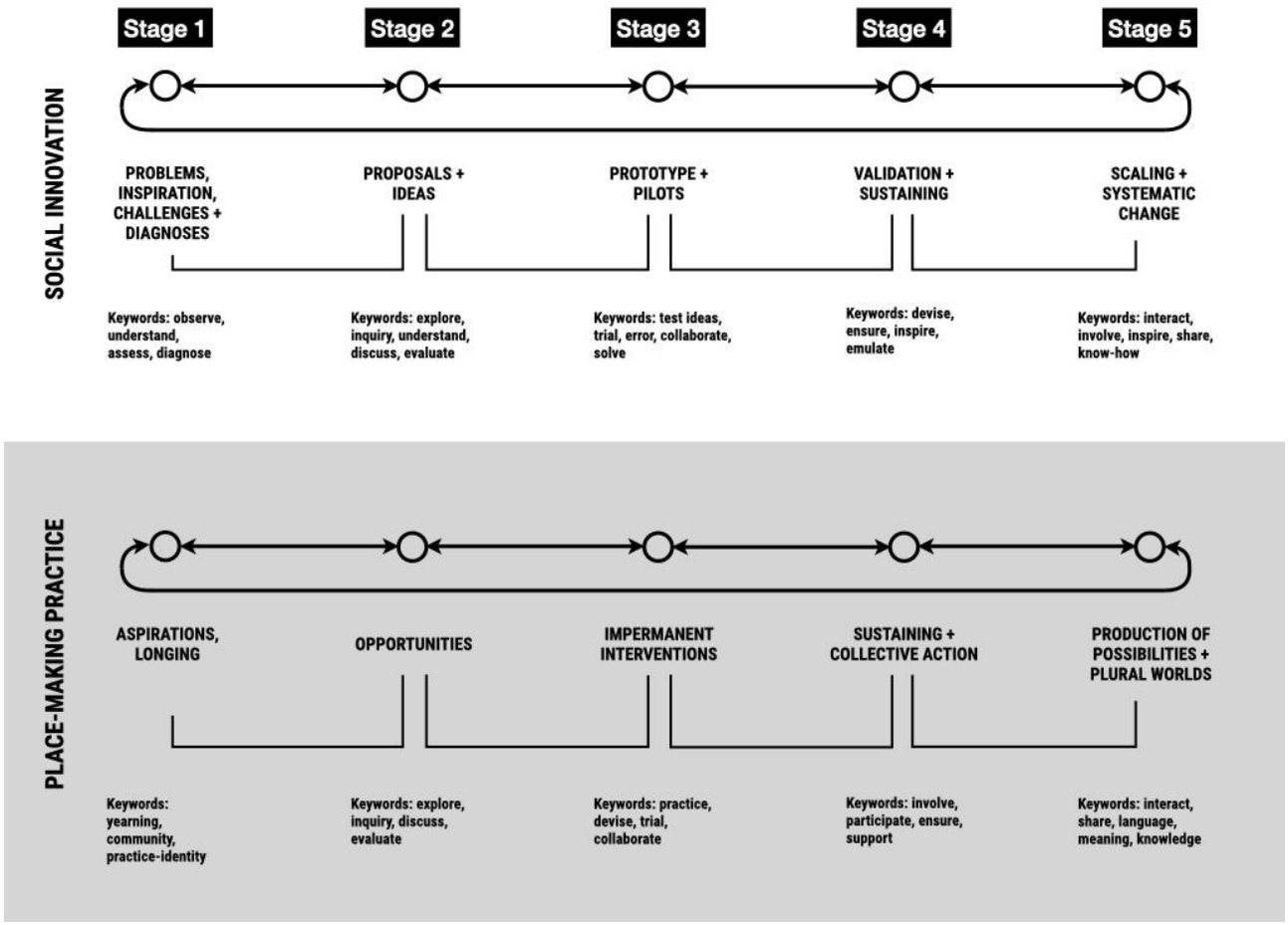

Image 5: Stages of social innovation and place-making / practice.

The place-making and practice stage differs from the SI process, as the objective of the latter is to diagnose a human situation that can be solved, scaled and procured into a systematic change in the context studied. Therefore, it requires the active participation of members of social groups, stakeholders and institutions. On the contrary, the case showed how individuals have self-agency to organise interventions that support their social (and cultural) needs. Consequently, the results show the need for a new conceptualisation of SI that considers different types of systematic change and the roles played by stakeholders. They need to recognise diverse phenomena and how the type of government, economic style and social establishment influence these. To advance SI theory, we need to document the realities at other latitudes and decolonise conceptualisations.

Conclusion

The work shows that SIs and place-making /practices processes encompass collective and collaborative actions of a specific social group toward satisfying a social need. However, the latter differs in the intentions, actions and outcomes, as the individuals have the self-agency to organize and intervene in places to support their social (and cultural) needs. They do not aim to solve a problem and find a solution that can be scaled and procured into a systematic change. They concentrate on intervening places to deal with their longing for home while creating a sense of belonging through a series of rituals in an urban context. We recognize the need to pursue further research and thus propose to analyse the city as a category of practice, where we can map practices that create temporary spaces of opportunity

and plural worlds embedded in the urban context. Therefore, we require epistemological approaches, theoretical frameworks and a dialectic character that offer an alternative to prevent exclusionary conceptualizations of participation. We need to listen to and document the perceptions and experiences of people to create concepts that honour their realities.

Acknowledgement

This research was partially funded by a CAAD grant in 2016 and a Butine Grant in Fall 2020. It was also partly commissioned by the Sharjah Architecture Triennial Research Initiative for the [forthcoming] publication and exhibition "Living Continuity". We also acknowledge the research curator, Sharmeen Inayat, for opening spaces to discuss, exchange and expand the research.

References

Alawadi, K. (2014). Urban redevelopment trauma: The story of a Dubai neighbourhood. *Built Environment*, *40*(3), 357-375.

Andrew, C., & Klein, J. (2010). *Social innovation: What is it and why is it important to understand it better*. Ontario Ministry of Research and Innovation. (Cahiers du centre de Recherche Sur Les Innovations Sociales (CRISES), Collection Etudes Theoriques, no. ET1003).

Angelo, H., & Wachsmuth, D. (2015) Urbanizing urban political ecology: A critique of methodological cytism, *International Journal of Urban and Regional Research, 39*, 16-27.

Aractingi, J., & Le Pape, G. (2011). *Rituals and catechisms in ecumenical rite in East and West at the crossroads masonics*. Editions L'Harmattan.

Beblawi, H. (1987). The rentier state in the Arab World. *Arab Studies Quarterly*, *9*(4), 383-398.

Beham, B., Drobnic, S., & Verwiebe, R. (2009). *Literature review: Theoretical concepts and methodological approaches of quality of life and work.* Utrecht University.

Bernal, M. & Cecchini, S. (2017). Social innovation in Latin America and the Caribbean. In J. Howaldt, C. Kaletka, A. Schröder, & M. Zirngiebl (Eds.), *Atlas of social innovation: New practices for a better future* (pp. 128–130). Sozialforschungsstelle, TU Dortmund University.

Brenner, N. (2018) Debating planetary urbanization: For an engaged pluralism. Environment and Planning, *Environmental and Planning D: Society and Space*, *36*(3), 570–590.

Coombe, R. (1991) Encountering the postmodern: New directions in cultural anthropology. *Canadian Review of Sociology*, *28*(2), 188–205.

Davis, M. (2004). Planet of slums: Urban involution and the informal proletariat, *New Left Review*, *26*, 5-34.

de Certeau, M. (1984) *The practice of everyday life*. University of California Press.

Derr, J. R. (2002). T*he poet's place in modernity: Heidegger, Eliot and Pound*. Loyola University Chicago.

Domanski, D., & Monge-Iriarte (2017). Social innovation in Chile. J. Howaldt, C. Kaletka, A. Schröder, & M. Zirngiebl (Eds.), *Atlas of social innovation: New practices for a better future* (pp. 134–136). Sozialforschungsstelle, TU Dortmund University.

Elsheshtawy, Y. (2010). *Dubai: Behind an urban spectacle*. Routledge.

Entrikin, J. N. (1991). *The betweenness of place: Towards a geography of modernity*. Johns Hopkins University Press.

Foreign Affairs. (2008). Cultural capital meets industrial prominence: The Emirate of Sharjah, charging ahead. *Foreign Affairs*, *87*(5), Sponsored section.

Goldenberg, M. (2004). *Social innovation in Canada: How the non-profit sector serves Canadians … and how it can serve them better*. Canadian Policy Research Networks.

Goldenberg, M., Kamoji, W., Orton, L., & Williamson, M. (2009). *Social innovation in Canada: An update*. Canadian Policy Research Networks.

Howaldt, J., & Schwartz, M. (2010). *Social innovation: Concepts, research fields and international trends. Report of ESF, EU and Aachen University*.

Lee, J., & Ingold, T. (2006). Fieldwork on foot: Perceiving, routing, socializing. In S. Coleman & P. Collins, (Eds.), *Locating the Ffeld: Space, place and context in anthropology* (pp. 67–86). Berg.

Lefebvre, H. (1991). *The production of space*. Basil Blackwell.

Lefebvre, H. (1996). *Writings on cities* (E. Kofman & E. Lebas, Trans.). Blackwell.

Lynch, K. (1960). *The image of the city*. MIT Press.

Mazer, K. M., & Rankin, K. N. (2011). The social space of gentrification. *Environment and Planning D: Society and Space*, *29*(5), 822-839.

McKinsey & Company. (2016). *Social innovation: Can fresh thinking solve the world's most intractable problems?* McKinsey & Company.
Morales Gutiérrez, A. C. (2009). Innovación social: Un ámbito de interés para los servicios sociales. Zerbitzuan: Gizarte zerbitzuetarako aldizkaria = Revista de servicios sociales, (45), 151–175.
Mulgan, G. (2006). *Social innovation: What it is, why it matters and how it can be accelerated*. Skoll Centre for Social Entrepreneurship
Murray, R., Caulier-Grice, J., & Mulgan, G. (2010). *The open book of social innovation*. The Young Foundation; NESTA.
Neamtan, N., & Downing, R. (2005). *Social economy and community economic development in Canada: Next steps for public policy*. Issues paper by the Chantier del' Èconomie Sociale in collaboration with the Canadian Community Economic Development Network (CCEDNet) and Alliance Recherche Universités-Communautès en Économic Sociale (ARUC-ÉS).
Nicholls A., & Murdock A. (Eds.). (2012). *The nature of social innovation*. Palgrave Macmillan.
Owen, R., Bessant, J. R., & Heintz, M. (Eds.). (2013). *Responsible innovation: Managing the responsible emergence of science and innovation in society*. John Wiley & Sons.
Pink, S. (2012). *Situating everyday life: Practices and places*. Sage.
Rab, S. (2011). Sharjah: Seascape urbanism in a Khaliji port city. In A. Perez-Gomez, A. Cormier, & A. Pedret, *Where do you stand: 99th ACSA Annual Meeting, Montreal, Canada, March 3-7* (pp. 791–800).
Relph, E. (1976). *Place and placelessness*. Pion.
Robinson, J. (2002). Global and world cities: A view from off the map. *International Journal of Urban and Regional Research*, *26*(3), 531–554.
Robinson, J. (2003). Postcolonialising geography: Tactics and pitfalls, *Singapore Journal of Tropical Geography*, *24*(3), 273–289.
Roy, A. (2009). The 21st century metropolis: New geographies of theory. *Regional Studies*, *43*(6), 819–830.
Said, E. W. (2014). Orientalism reconsidered. In B. Moore-Gilbert, G. Stanton & W. Maley (Eds.), *Postcolonial criticism* (pp. 126–44). Routledge.
Schatzki, T. (2001). Practice mind-ed orders. In T. Schatzki, K. Knorr-Cetina, & E. Von Savigny (Eds.), *The practice turns in contemporary theory* (pp. 42–55). Routledge.
Seamon, D., & Sowers, J. (2008). Place and placelessness, Edward Relph. In P. Hubbard, R. Kitchen, & G. Vallentine (Eds.), *Key texts in human geography* (pp. 43–52). Sage.
Sheringham, M. (2006). *Everyday life: Theories and practices from surrealism to the present*. Oxford University Press.
Singermann, D., & Ammar, P. (Eds.). (2006). *Cairo cosmopolitan: Politics, culture, and urban space in the Middle East*. AUC Press.
Soja, E. W. (1989). *Postmodern geographies: The reassertion of space in critical social theory*. Verso.
Stren, R. (2001). Local governance and social diversity in the developing world: New challenges for globalizing city-regions', In A. J. Scott (Ed.), *Global city-regions: Trends, theory, policy* (pp. 193–213). Oxford University Press.
UAE Governmental Portal. (2021). *History and facts*. https://u.ae/en#/
Vorkinn, M., & Riese, H., (2001). Environmental concern in a local context: The significance of place attachment. *Environment and Behavior*, *33*(2), 249–263.
Wachsmuth, D. (2014). City as ideology: Reconciling the explosion of the city form with the tenacity of the city concept. *Environmental and Planning D: Society and Space*, *32*(1), 75–90.

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Digital Job Onboarding: the Erasmus+ project for youth's digital upskilling

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Abstract

For many people, digital working has become a reality, especially through on-the-job training during the COVID-19 pandemic. Students were home-schooled, and companies and offices operated distance working. Digital skills became a key determinant in the employability of young people, and dealing with these new digital job realities is assumed by potential employers. Millions of jobs requiring digital skills already exist, and more will be created in the coming decade. The demand for digital skills in the workplace has never been greater. However, unemployed (young) people, school leavers in the transition to work, who are not embedded in a supportive institutional framework, have widely missed this capacity-building opportunity. The target group for this project is youth not in employment, education or training (NEET), as well as other young people at risk of marginalization. This project aims to help job-seeking young people adapt to the "new normal" after COVID-19 by improving their digital skills.

Keywords: Social impact, Innovation, Digital upskilling, Job onboarding, NEET, Youth, Unemployment, Employment, Education, Training, Young people

Introduction

Digital Job Onboarding (DJO - www.dj-training.eu) is an Erasmus+ project funded by the European Union which aims to familiarize youth with forms of new digital professional life, to upskill young people and to activate their career potential with a special focus on new forms of digital working. DJO's overall objective and scope is to close the gap of the digital divide during job onboarding for vulnerable target groups, especially young unemployed people without academic educational backgrounds, by developing, testing and delivering a training programme.

The programme is led by FH Joanneum Gesellschaft, one of the leading universities of applied sciences in Austria. Other members of the consortium are DEX Innovation Centre in the Czech Republic, which is a private innovation centre raising funds, creating new products, building startups and providing educational services, Fondazione Fenice Onlus, a training and research centre in Italy with specific skills in designing and implementing didactical and training activities in sustainable development, HAAGA-HELIA AMMATTIKORKEAKOULU, the second largest university in Finland, Jugend am Werk Steiermark GmbH in Austria, a non-profit organization providing social services to support children, young people and adults in all the ups and downs of life and SYNTHESIS Center for Research and Education in Cyprus, which initiates and implements social impact projects with a focus on social inclusion. All participating organizations are experienced in the fields of social innovation, education and training.

Methodology

As part of the project, an online survey was conducted, and several best practice examples have been collected in each partner country. The 3-month survey was held online via LimeSurvey and focused on current and future needs related to digital competencies in the workplace. It was addressed to representatives of the project's target groups. During the survey, the consortium reached

out to 252 employers, 238 companies and 233 unemployed young people in 5 countries: Austria, Cyprus, the Czech Republic, Finland and Italy. The main research questions were intended to inquire about what kind of digital skills are needed from the point of view of employers, as well as what kind of digital skills unemployed young people think they need to meet the demands of the current job market.

Towards evaluating the importance of job fitness competencies, the best practice examples collected through interviews, concerned the following main categories: 1) Dealing with computer programs and PC software, 2) New forms of work and requirements for job duties in the future, 3) Personally organising the demands of present-day jobs, 4) Professional use of social media in professional applications and 5) Safe use of computers and the internet.

Onboarding

Onboarding is a process of adult learning. It often involves a series of training and orientation programmes providing new employees with knowledge of the organization's vision, mission, operations, products, services and processes to build strong links between the employees and the organization. Onboarding is necessary for new employees to enable them to perform well in the new job and meet the organization's expectations. Training also allows employees to improve their knowledge and skills, attitudes and confidence at work.

Digital skills at the workplace: an overview

Different definitions of digital skills or competencies exist, and different terms such as "digital literacy", "digital competencies", "ICT-related skills" and "e-skills" are often used synonymously and/or interchangeably.

Digital skills are broadly described by UNESCO (2018) as the ability to use digital devices, communication application, and networks to access and manage information:

Basic or essential digital skills are considered to be the following:

- Email and instant messaging
- Word processing
- Social media for business
- Web-based research and problem-solving
- Data entry and handling
- Behaving safely and legally online

Advanced digital skills are considered to be the following:

- User experience design
- Coding
- Programming, web, and app development
- SEO, SEM, and content creation
- Data analysis

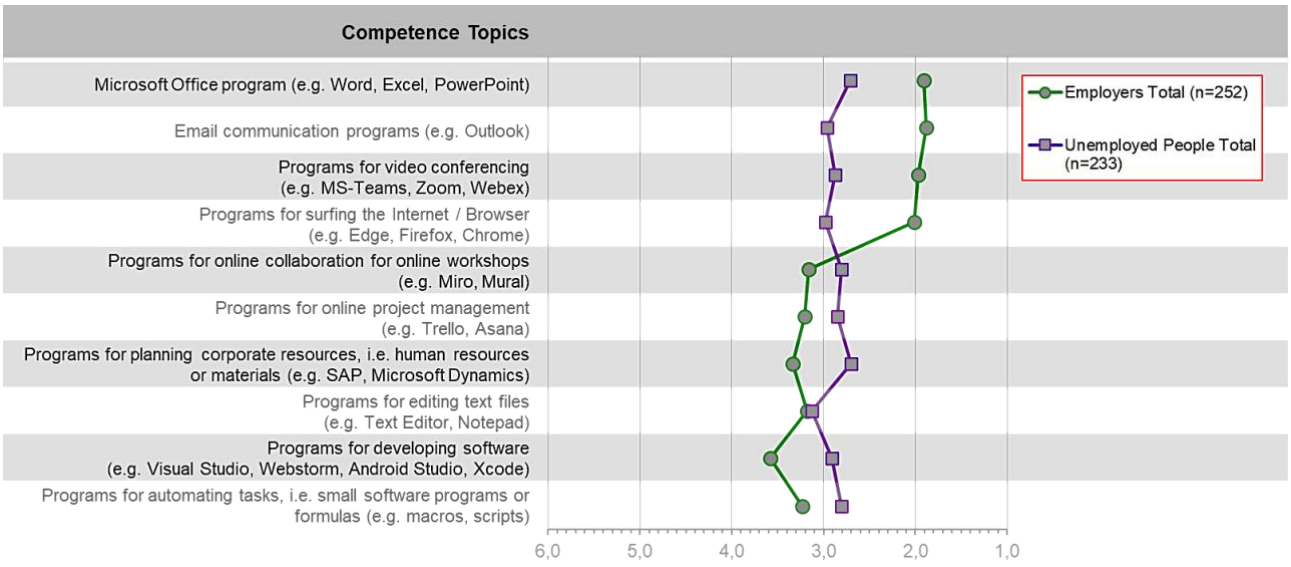
At the same time, digital competence is one of the *Key Competences for Lifelong Learning* (Council of the European Union, 2018). Based on its updated (2018) definition:

> *"at work and for participation in society. It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including*

digital well-being and competencies related to cybersecurity), intellectual property related questions, problem-solving and critical thinking ..."(Council of the European Union, 2018)

Findings of the online survey: Current state in partner countries

1. *Dealing with computer programs and PC software*



1 = Training/Competence for recently hired employees would be extremely important for me.
6 = Training/Competence for recently hired employees would not be important for me at all

Figure 1: Dealing with computer programs and PC software.

For both target groups (employers and unemployed people) the average importance ratings are relatively low (employers = 2.75; unemployed people = 2.87). In the area of dealing with computer programs and PC software, there are clear differences between the target groups of employers/companies and unemployed people:

- While the importance of training using a wide variety of software tools is expressed homogeneously among unemployed people, there is a clear preference among companies.
- Classic software programmes for day-to-day work (office, mail programmes, online communication and browser programmes) are preferred from the company's point of view as basic skills are important.
- High-end programmes (online collaboration, project management, ERP solutions …), on the other hand, are losing their importance from the companies' point of view, in contrast to unemployed people.

2. *New forms of work and requirements for the job duties in the future*

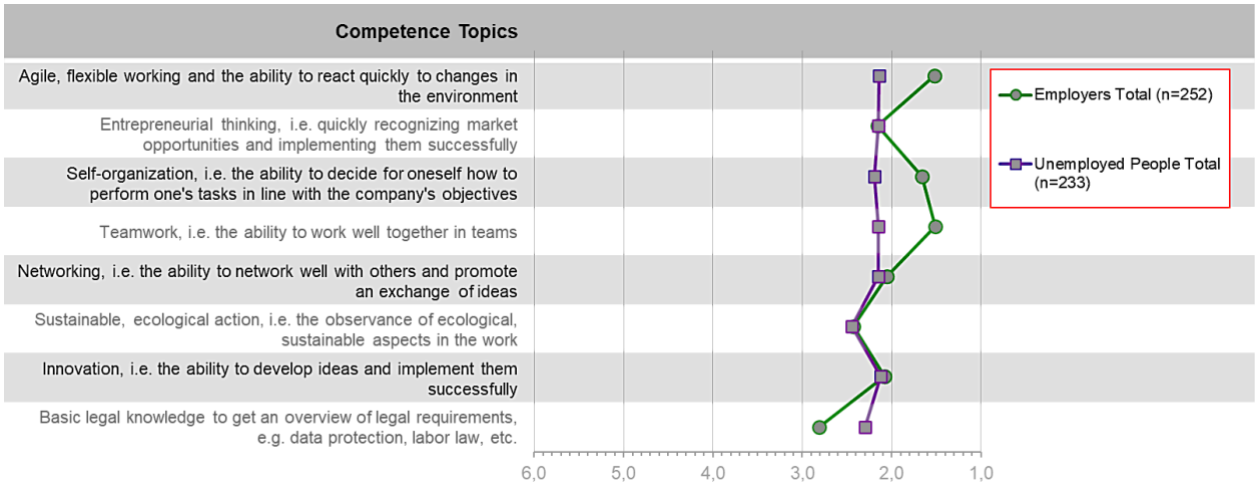


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Figure 2: New forms of work and requirements for the job duties in the future.

For both target groups (employers, and unemployed people), the average importance ratings are high (employers = 2.03; unemployed people = 2.21). In the target group of unemployed people, the various aspects of competences for new forms of work and requirements for job duties in the future are considered little differentiated in relation to their training needs. On the other hand, there are clear priorities from the point of view of the companies:

- Competence in agile and flexible working
- Competence in working in teams and
- Competences in self-organization.

Interestingly, the crucial global challenge of sustainable, ecological actions is regarded with more or less low relevance from the point of view of both target groups.

3. Personally organising the demands of present-day jobs

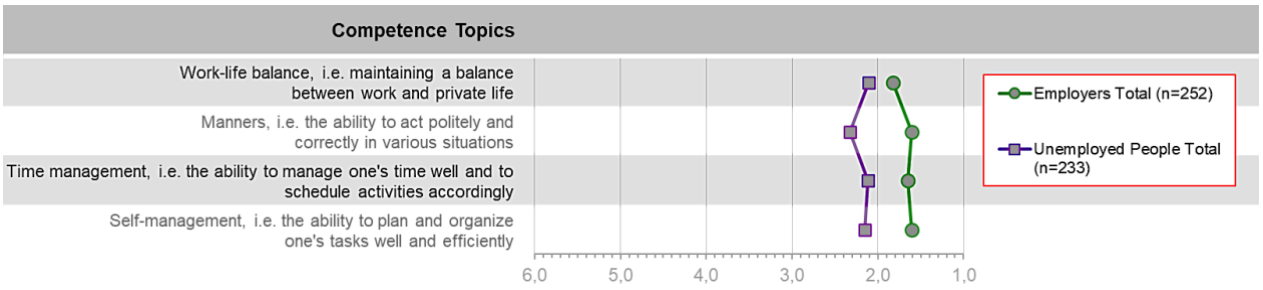

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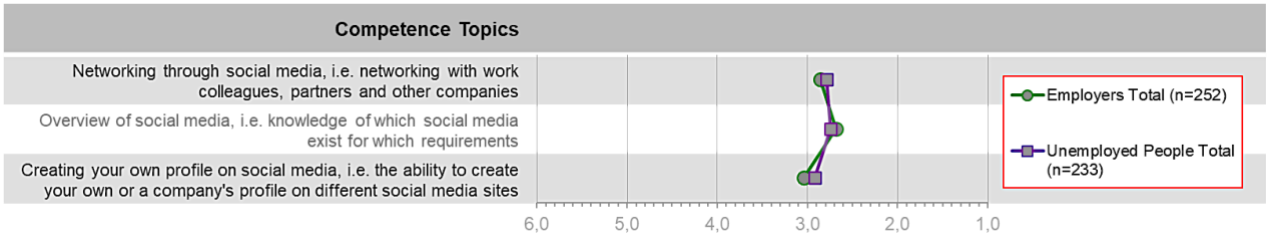
Figure 3: Personally organising the demands of present-day jobs.

For the employers, the importance ratings are on average higher than for the unemployed people (employers = 1.67; unemployed people = 2.18).

When it comes to skills for personally organising the demands of present-day jobs, there is a clear difference between the assessments of companies and unemployed people.

- Companies say that these skills are more important than unemployed people estimate their need for further training.
- While in the case of work–life balance both groups express relatively uniform importance, aspects such as politeness/manners, self-management and time management are assessed with higher importance by the group of employers.

4. Professional use of social media in professional applications



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6 = Training/Competence for recently hired employees would not be important for me at all

Figure 4: Professional use of social media in professional applications.

For both target groups, the importance ratings are on average low (employers = 2.86; unemployed people = 2.82).

When it comes to skills for using social media professionally (e.g. Facebook, Instagram, Snapchat, LinkedIn, Xing, Twitter ...), the assessments of importance are for companies (in the direction of their employees) and unemployed people in terms of their need for further training exactly at the same level. However, the absolute level of importance in this area is generally relatively low.

5. Safe use of computers and the internet

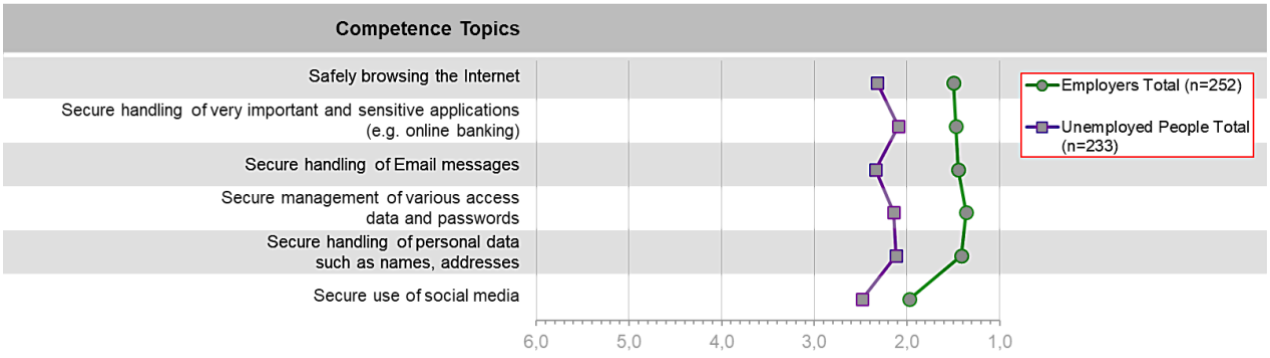

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Figure 5: Safe use of computers and the Internet.

For the employers, the importance ratings are on average higher than for the unemployed people (employers = 1.52 = high score; unemployed people = 2.25).

When it comes to skills for the safe use of computers and the internet, the assessments of importance for companies (in the direction of their employees) and unemployed people in terms of their need for further

training are very different. For companies, these competences are the most important of all five topics. They expect their employees to have very high qualifications in almost every aspect. For unemployed people, in contrast, there is less need for further training in these skills.

Findings of the online survey. Current state in partner countries

1. Dealing with computer programs and PC software

The first competencies group is comprised of competencies for using computer programs and PC software:

a) Microsoft Office (e.g. Excel, Word, PowerPoint)
b) programmes for video conferencing (e.g. Teams, Zoom, Webex)
c) programmes for surfing the internet/browsers (e.g. Firefox, Chrome, Edge)
d) programmes for online collaboration (e.g. Miro, Mural, Google Docs)
e) online project management (e.g. Trello, Asana)
f) programmes for planning corporate resources (e.g. SAP, Microsoft Dynamics)
g) programmes for editing files (e.g. Text Editor, Notepad)
h) developing software (e.g. Visual Studio, Webstorm, Android Studio)
i) programmes for automating tasks (e.g. macros, scripts)
j) file-sharing programs (e.g. OneDrive, Google Drive)

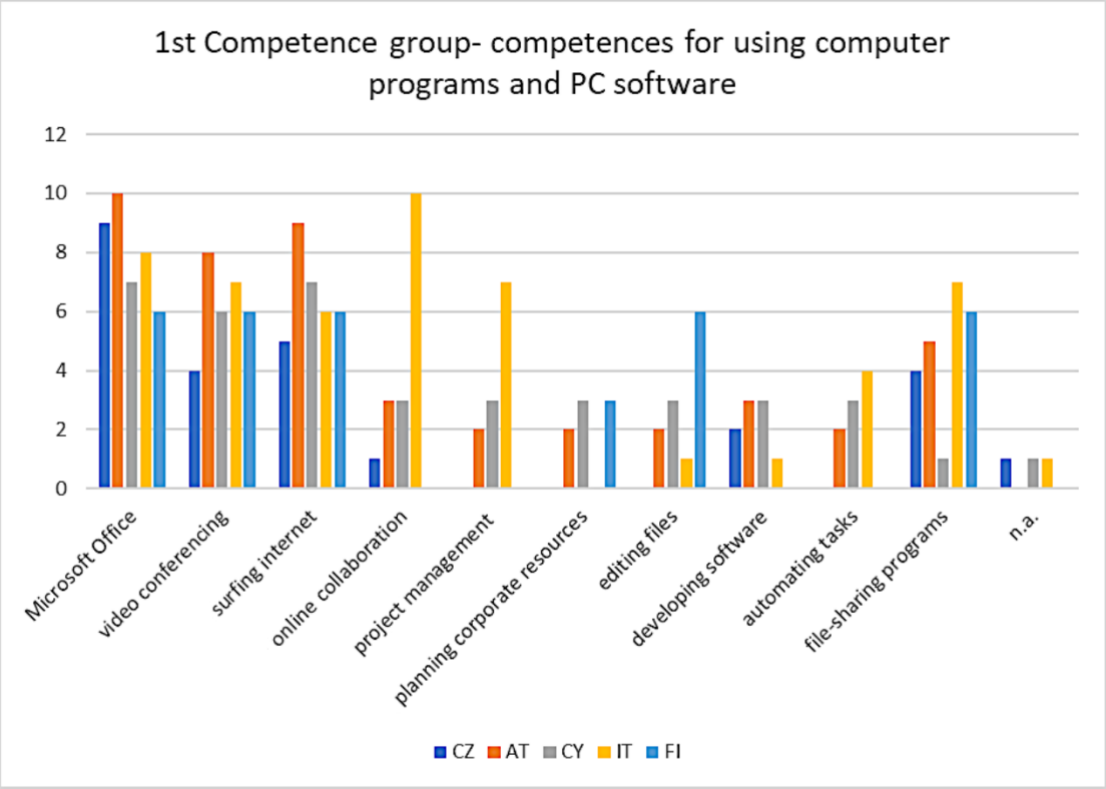

Figure 6: 1st Competence group - Competences for using computer programs and PC software.

Most of the companies have the opinion that the competencies of Microsoft Office, video conferencing and surfing the internet are very important. The competencies of online collaboration and project management" seem to be very interesting only for Italian companies. Only three companies from the Czech Republic, Cyprus and Italy believe that this competence group is not important. All three companies belong to the production sector.

2. New forms of work and requirements for job duties in the future

The second competencies group deals with new forms of work and requirements for job duties in the future. In the interviews the following points were raised:

a) agile, flexible working
b) entrepreneurial thinking
c) self-organization
d) teamwork
e) networking
f) sustainable & ecological action
g) innovation and
h) basic legal knowledge

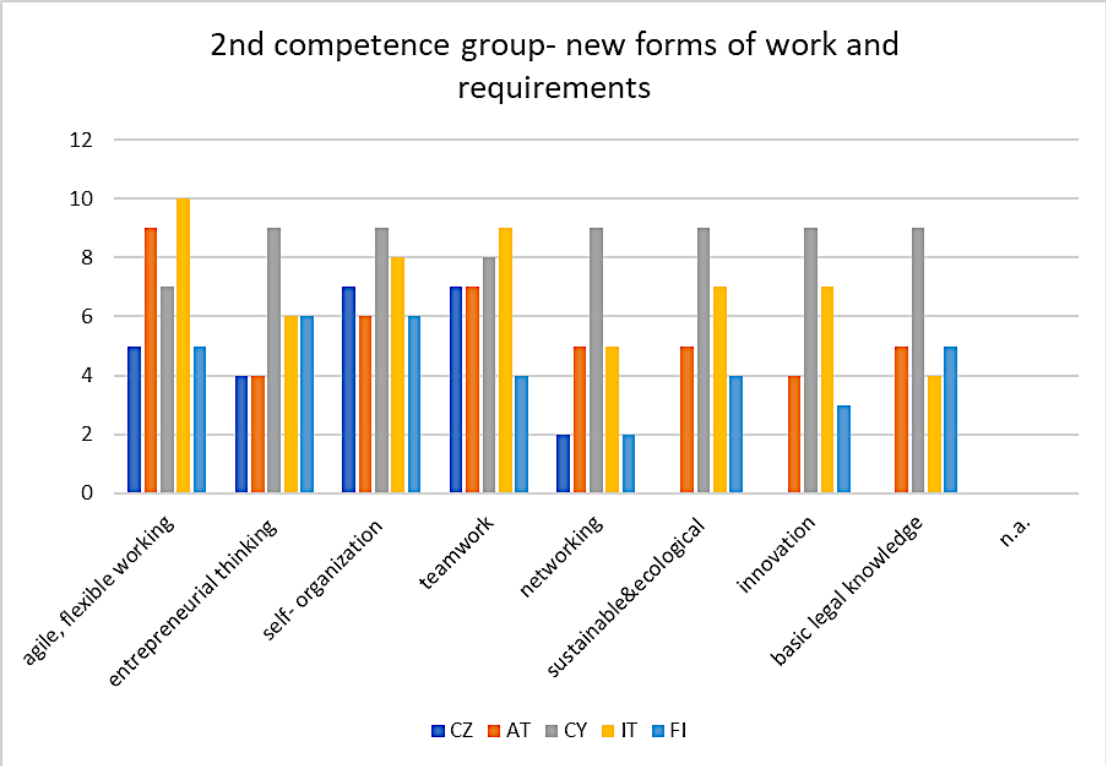

Figure 7: 2nd Competence group – New forms of work and requirements.

Overall, all competencies are important for the companies in all participating countries. Only the competencies of networking and innovation have slightly less interest amongst the companies, and Czech companies in particular showed no interest in these subjects.

3. Personally organising the demands of present-day jobs

The third competencies group deals with the demands of present jobs and personal organising:

a) work–life balance
b) manners/netiquette
c) time management
d) self-management
e) crisis management and
f) goals achievement (i.e. ownership and decisiveness, prioritising and coping with uncertainty)

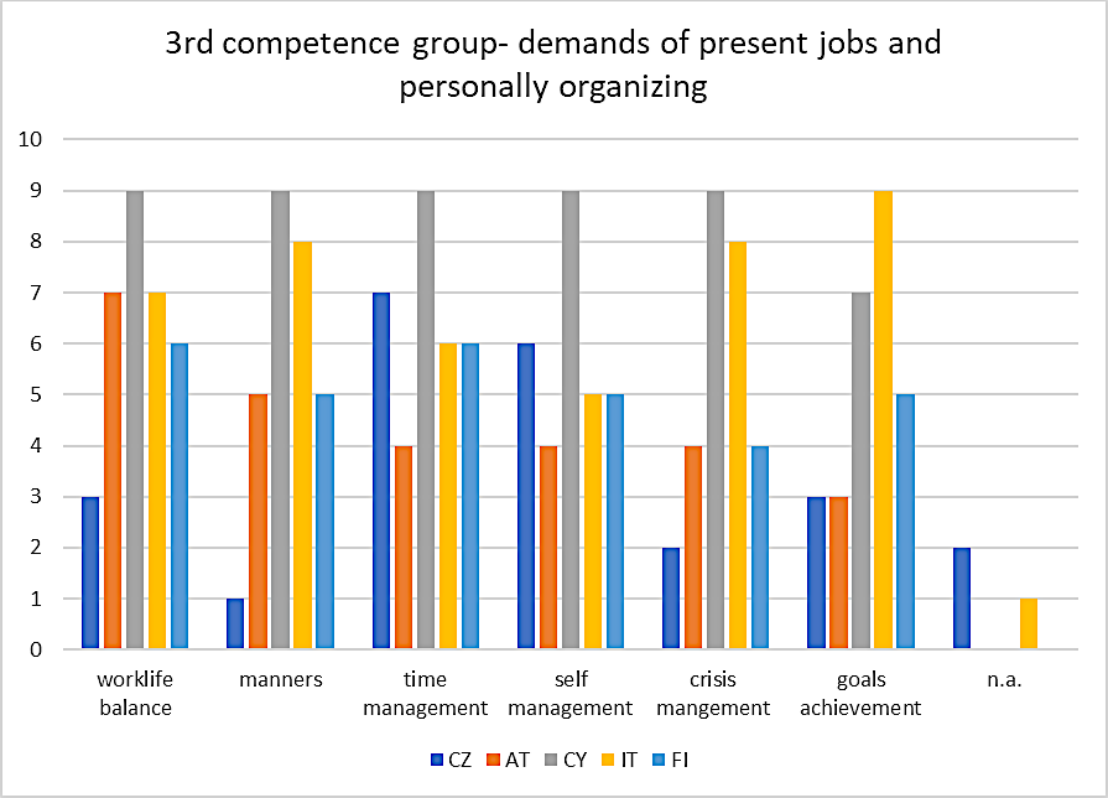

Figure 8: 3rd Competence group – Demands of present jobs and personal organising.

The companies' views towards this competence group show quite interesting national differences. In Italy, all competencies are of significant importance, while Czech companies see only time management as very important. Finnish companies are very interested in all sub-competencies of this competence group.

4. Professional use of social media in professional applications

The fourth competencies group is about competencies for professional use of social media in professional applications (e.g. Facebook, Instagram, Snapchat, LinkedIn, Xing and Twitter). The following issues were discussed:

a) networking through social media
b) overview of social media and
c) creating your profile on social media
d) not used in the company

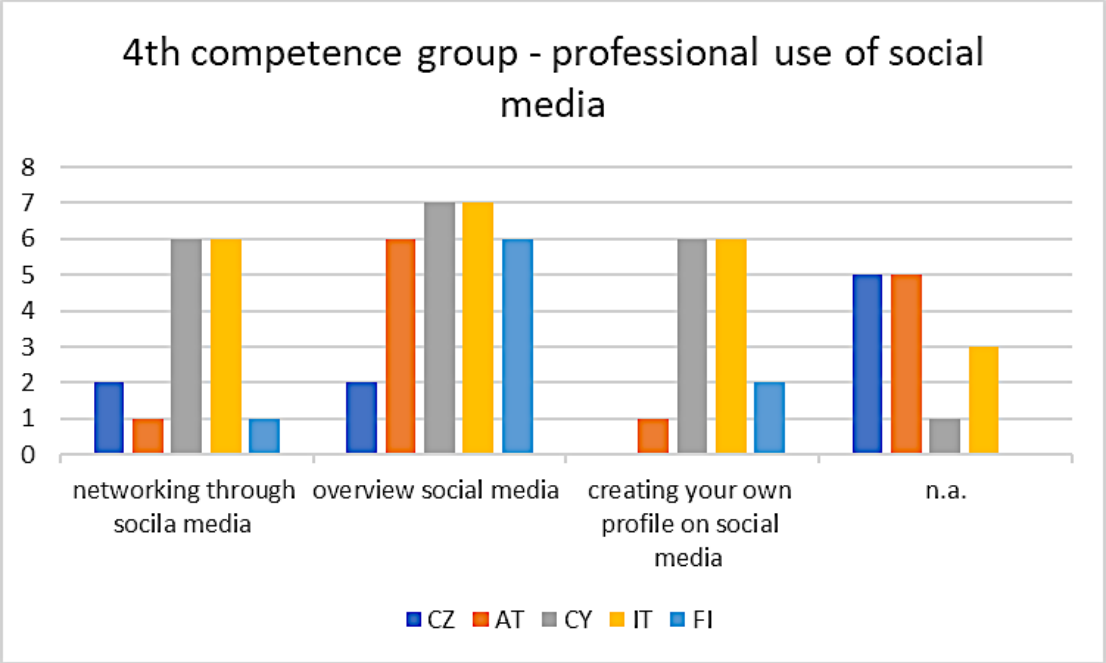

Figure 9: 4th Competence group – Professional use of social media.

5. Safe use of computers and the internet

The fifth and last competences group concerns the safe use of computers and the internet, and the following issues were raised:

a) safely browsing

b) secure handling of sensitive applications like online banking

c) secure handling of emails

d) secure management of passwords

e) secure handling of personal data

f) secure use of social media and

g) secure exchange of confidential files

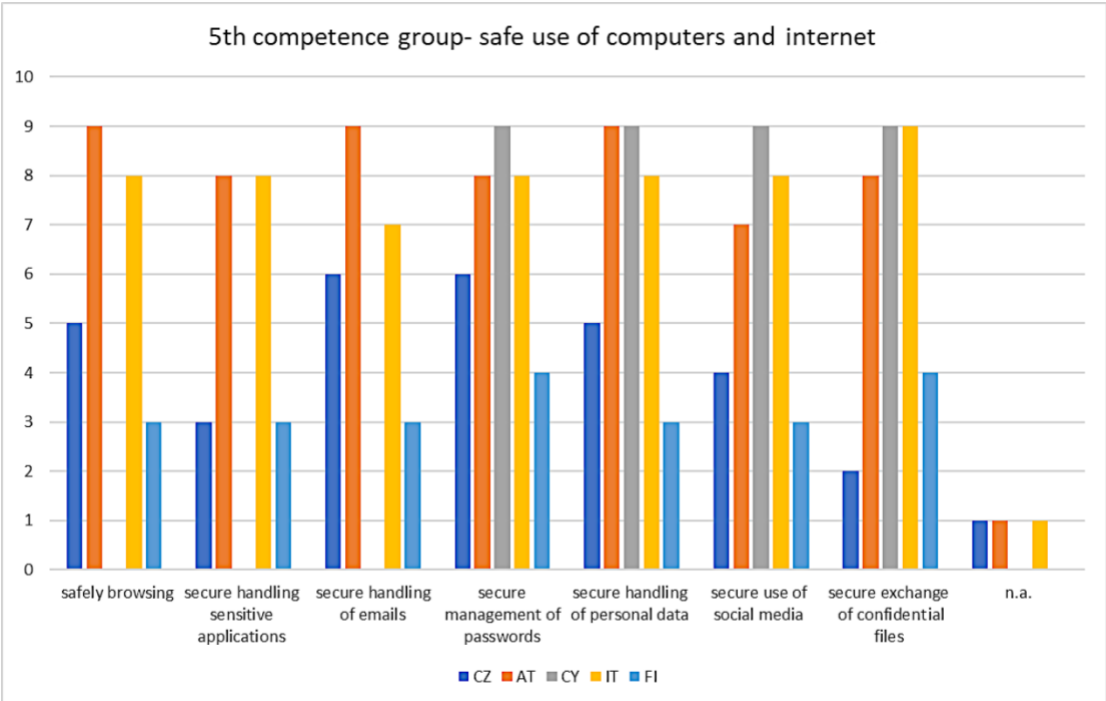

Figure 10: 5th Competence group – Safe use of computers and the Internet.

This competence group shows the greatest interest from all participating companies and nearly all companies. The companies that have shown a great deal of interest in these topics do not belong to the production sector.

Conclusions

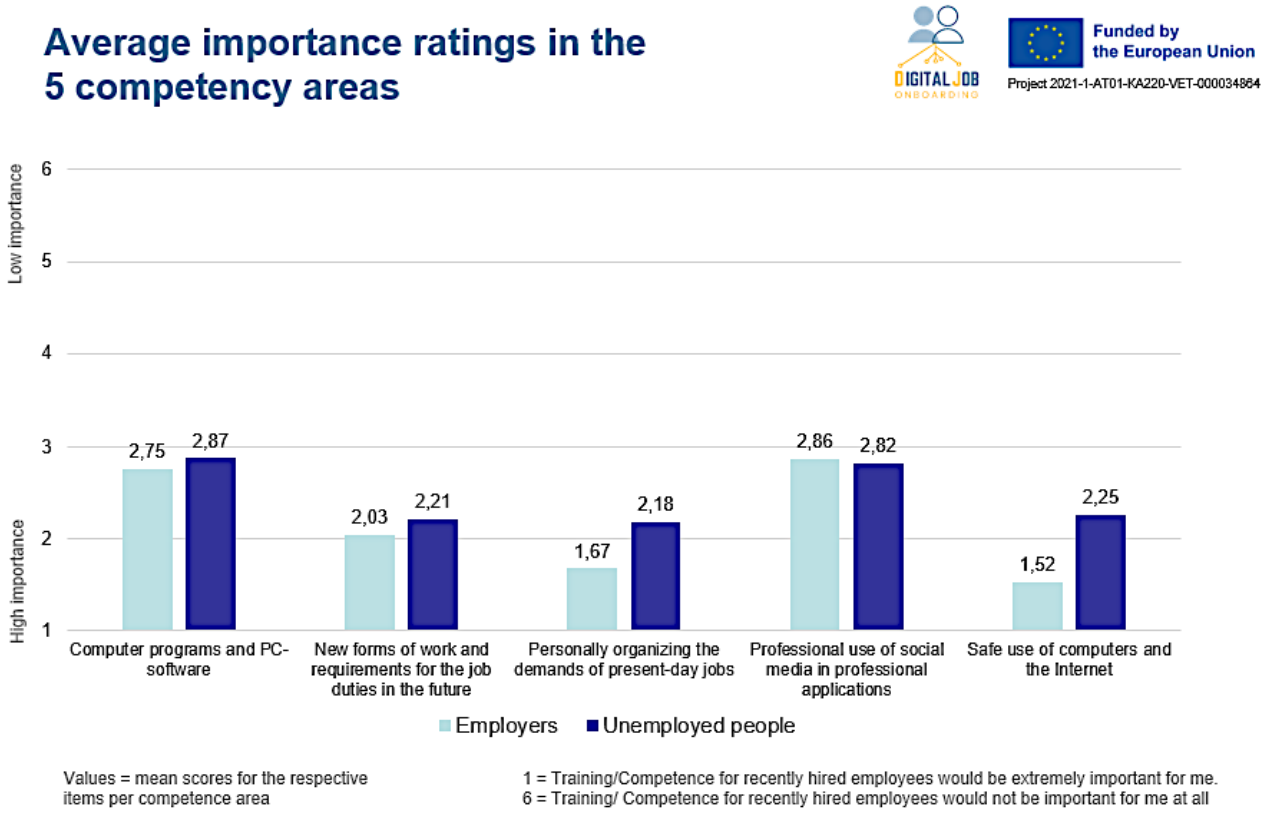

Figure 11: Average importance ratings in the 5 competency areas.

Organizations value the importance of the five competency areas towards their employees. Unemployed people, on the other hand, value the importance of further training in these skills areas. We can still compare both importance ratings, as they also reveal an interesting picture:

- The importance of training is rated relatively equally among unemployed people across all five competency areas.
- It is different in companies: there are major differences between the individual competencies. From the point of view of the companies, three topics of competence are particularly important (ranking):
    1. Safe use of computers and the internet
    2. Personally organising the demands of present-day jobs (work–life balance, manners, self- and time management)
    3. New forms of work and requirements for job duties in the future or skills managing new forms of work (agility, entrepreneurial thinking, self-organization, teamwork, networking, sustainability, innovation and basic legal knowledge)

Next steps

The completed study on (new) digital professional life and the current situation at workplaces, alongside the needs of employers and employees, will serve as the basis for the formulation of the content of a curriculum for a training programme targeted especially at 18-25-year-old unemployed youth. The curriculum will consist of 5 modules. This training programme will be implemented in the form of eLearning with links to physical learning (blended learning), suitable for learning at home but also in the workplace context. The curriculum will be streamlined according to the feedback collected during the implementation phase through work-related sustainability projects.

References

Atchoarena, D., Selwyn, N., Chakroun, B., Miao, F., West, M., & Coligny, C. (2017). *Working group on education: digital skills for life and work*. Broadband Commission for Sustainable Development; UNESCO. https://tinyurl.com/5x87rcc5

Council of the European Union. (2018, June 4). Council recommendation of 22 May 2018 on key competences for lifelong learning. *Official Journal of the European Union.* https://tinyurl.com/57b7mcah

Council of the European Union. (2020, November 4). Council recommendation of 30 October 2020 on a bridge to jobs – reinforcing the youth guarantee and replacing the Council recommendation of 22 April 2013 on establishing a youth guarantee. *Official Journal of the European Union.* https://tinyurl.com/4hwzrd96

Digital Job Onboarding. (2022). *Digital job onboarding PR1 report.* https://tinyurl.com/3mv7kjmx

Drucker, P. (1974), *Management: Tasks, responsibilities, practices*. Harper & Row.

Statista (2022). *Youth unemployment rate in EU member states as of January 2022*. https://www.statista.com/statistics/266228/youth-unemployment-rate-in-eu-countries

Statista (2022). *Unemployment rate in the European Union as of June 2022, by country*. https://www.statista.com/statistics/1115276/unemployment-in-europe-by-country/

Unesco. (2018, March 15, last updated 2023, April 20). *Digital skills critical for jobs and social inclusion*. https://www.unesco.org/en/articles/digital-skills-critical-jobs-and-social-inclusion

World Economic Forum. (2020). *The future of jobs report*. http://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf

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Book review: Design for social innovation: Case studies from around the world

Claire Pillar

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Book review: Design for social innovation: Case studies from around the world

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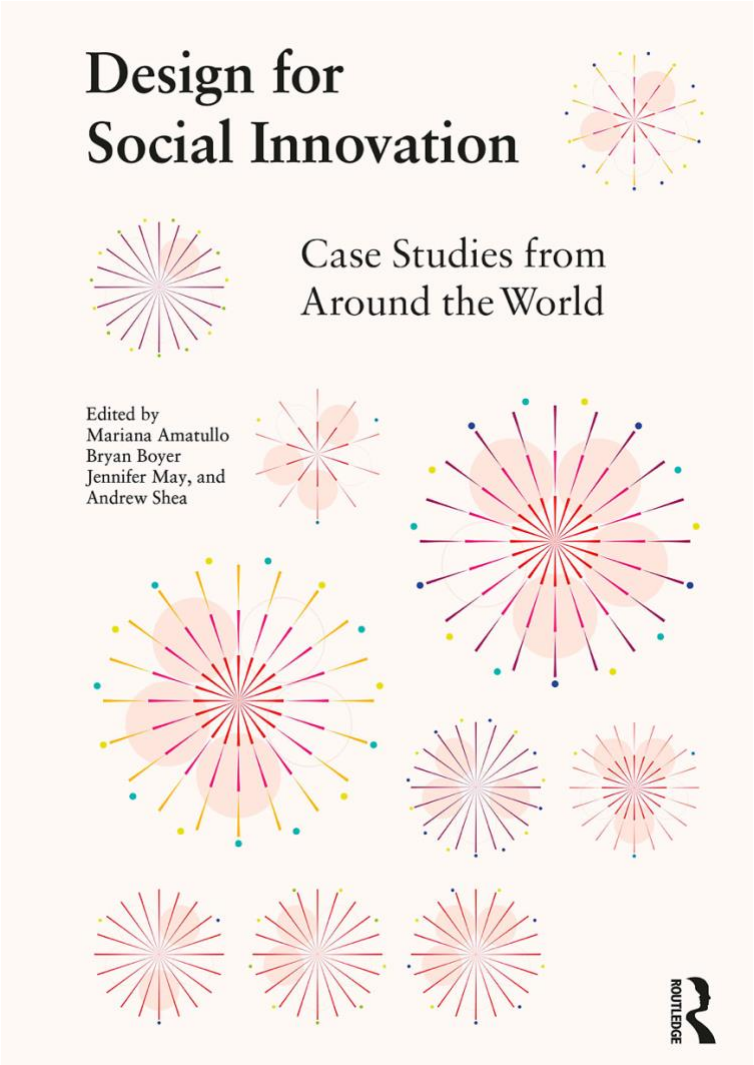

Amatullo, M., Boyer, B., May, J., & Shea, A., Eds. (2022). *Design for social innovation: Case studies from around the world*. Routledge. https://doi.org/10.4324/9781003021360 418 pp.

Featuring 45 case studies from 6 continents, this book is a snapshot of design for social innovation. An extensive introduction from the editors considers the boundaries and difficulties in projects based on design for social innovation: “With countless pilot projects, startups, and labs that have come and gone, the question is how the sustainability of design for social innovation practices can be enhanced. If that’s a question you care about, this book is for you”, they note.

The editors’ intention for this book was to understand how design for social innovation can be sustainable. The case studies included resulted from a global survey and include projects from Africa, Asia, Europe,

North and South America, Oceania and a few cross-continent projects.

A key concern is measuring the impact of design for social innovation projects. The editors found 37 different methods of measuring the impact of design for social innovation work, and ask: Is it reasonable to use the logics of yesterday to assess outcomes that represent elements of tomorrow? Issues their panel discussion identified were that DSI takes place at the intersections of disciplines and sectors with the involvement of many stakeholders; consultancy-based work is mismatched to goals of DSI initiatives and many factors are worked through as such projects progress.

While the projects presented in the book were mainly funded by government or the third sector, the editors were encouraged that a third of the cases were funded by fee for service.

The volume is a useful combination of 'how we did our design for social innovation' with panel discussion on issues facing design for social innovation.

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