



# The Design Journal

An International Journal for All Aspects of Design

ISSN: 1460-6925 (Print) 1756-3062 (Online) Journal homepage: <https://www.tandfonline.com/loi/rfdj20>

## Discussing about “Inclusion in Sharing-Based Services”. A design workshop using an analytic tool

Daniele Busciantella Ricci, Hua Dong, Alessandra Rinaldi & Francesca Tosi

To cite this article: Daniele Busciantella Ricci, Hua Dong, Alessandra Rinaldi & Francesca Tosi (2017) Discussing about “Inclusion in Sharing-Based Services”. A design workshop using an analytic tool, The Design Journal, 20:sup1, S4671-S4677, DOI: [10.1080/14606925.2017.1352964](https://doi.org/10.1080/14606925.2017.1352964)

To link to this article: <https://doi.org/10.1080/14606925.2017.1352964>



© 2017 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 06 Sep 2017.



[Submit your article to this journal](#)



Article views: 273



[View related articles](#)



[View Crossmark data](#)



Citing articles: 1 [View citing articles](#)

# Discussing about “Inclusion in Sharing-Based Services”. A design workshop using an analytic tool

Daniele Busciantella Ricci<sup>a\*</sup>, Hua Dong<sup>b</sup>, Alessandra Rinaldi<sup>a</sup>, Francesca Tosi<sup>a</sup>

<sup>a</sup>Laboratory of Ergonomics and Design, Department of Architecture, University of Florence

<sup>b</sup>Inclusive Design Research Center, College of Design and Innovation, Tongji University

\*Corresponding author e-mail: daniele.busciantellaricci@unifi.it

**Abstract:** The activities based on collaboration and shared consumption are hard to classify and it is not possible to define a taxonomy. Also, in this field some evidence address racial discriminations, the lack of worker protections and a lack of regulations. The authors argue that considerations about ‘inclusion’ and ‘exclusion’ state are needed for services involved in sharing-based activities. In addition, the ‘Sharing-Based Services’ (SBS) conceptual framework is proposed to study and analyse services in sharing-based contexts. In particular, this paper describes the activities of a design workshop organised with the aim to open a discussion about the aspects of the ‘inclusion’ and ‘exclusion’ in SBS. An analytic toolkit (‘Sharinc’) was used with the aim to consider these aspects analysing the structure of a SBS. Finally, this paper presents the results of the workshop achieved by the usage of the toolkit and by participants’ feedback.

**Keywords:** Design for Inclusion, Design for Services, Inclusion, Sharing, Sharing Economy

## 1. Introduction and background

In the last decades, a multitude of activities based on collaboration and shared consumption rapidly appeared. These activities underline the progression from goods based to sharing-based consumptions; where sharing is considered “an alternative to the private ownership” (Belk, 2007). They are all those activities “related to situations which partially and temporarily dissolves the sense of ‘I’ in to the sense of ‘us’” (Aria & Favole, 2015). Also, the term ‘sharing’ is often confusing and the expression ‘sharing economy’ is used in various ways. In fact, some researches suggest that it is hard to classify all these kind of activities and it is not possible to define a taxonomy (Codagnone & Martens, 2016). In addition, some evidence address racial discriminations (Codagnone & Martens, 2016; Edelman & Luca, 2014; Edelman, Luca, & Svirsky, 2016; Ge, Knittel, MacKenzie, & Zoepf, 2016), the lack of worker protections (Summers & Balls, 2015), and a debate about the regulations (Codagnone & Martens, 2016). The authors of this paper argue that considerations about ‘inclusion’ and ‘exclusion’ states are needed for services involved in shared activities.

## 1.1 Sharing-Based Services: a conceptual framework

The Sharing-Based Services (SBS) is a conceptual framework proposed by the authors of this paper with the aim to study and analyse services based on the concept of 'sharing'. The SBS conceptual framework describes four macro-groups of services as following; (i) services that describe activities based on a person-to-person relations and mainly regulated on non-profit business; (ii) services that describe activities based on person-to-person relations and mainly regulated on profit business; (iii) collaborative services where the final user is actively involved and assumes the role of service co-designer and co-producer (Jégou & Manzini, 2008; Manzini & Coad, 2015); (iv) services that describe activities based on a 'person-to-system', 'pseudo-sharing' (Belk, 2014), and mainly regulated on profit business (e.g. short-term renting). Studying and analysing the structure of services in this framework can highlight interesting aspects about the concept of inclusion and exclusion.

## 1.2 Inclusion in Sharing-Based Services

The reflections about the concepts of 'exclusion' and 'inclusion' in SBS are driven by the following questions:

- Are the SBS conceptual framework services inclusive?
- Are they able to enhance human diversity?
- Are they able to respect different human needs, values and ways of living?
- Who or what is excluded?

The authors argue that it is necessary to reflect upon different human dimensions to answer these questions. Therefore, a first consideration regards the usage of, the access to, and the participation in the activities provided through a service. They may be affected by individuals' physical and cognitive capacities and needs, economical status, cultural and political factors. The purpose is that considering the inclusion and the exclusion in SBS means taking into consideration aspects such as; (i) how people physically and cognitively interact with physical objects and spaces, physical and digital systems inherent to the services considering aspects such as vision, hearing, thinking, dexterity, locomotion (Clarkson & Coleman, 2015; Clarkson, Dong, & Keates, 2003; Clarkson, Waller, & Cardoso, 2015; Goodman-Deane, Waller, Williams, Langdon, & Clarkson, 2011; Waller, Bradley, Hosking, & Clarkson, 2015); (ii) how cultural factors influence the services, how the diversity, different ways of living, different values are treated; (iii) how social factors affect the possibility to create relationships, social support, solidarity through the service; (iv) how legislation, policies and practises affect the political dimension and the opportunity of participating in public life through the service; (v) how the economical status, the costs, the labour condition and the economical sustainability is considered in the service. The authors consequently argue that considering the inclusion in SBS means taking into consideration the aspects mentioned for every component of the SBS.

## 2. Methodological approach

The design workshop was organised with the aim to encourage a discussion about the concepts of 'inclusion' and 'exclusions' in the framework of the Sharing-Based Services (SBS) using the analytical toolkit named 'Sharinc'. The participants were involved in the 1.5 hour design workshop during 'Design for Next' (12th European Academy of Design Conference) in Rome (Italy). The workshop was conducted through three main phases; (i) the presentation of the main topics; (ii) the analysis and the design phase of a SBS with the toolkit; (iii) comment and feedback phase.

The first phase was managed as a keynote presentation for around 25 minutes with the aim to introduce the main topics. During the second phase the participants were divided into two different groups. Every group had the same toolkit composed by the main template of the tool, a deck of cards, post-its and pens. They were invited to interact with the toolkit with the aim to analyse an existing or a new SBS. During this phase the facilitator provided suggestions on how to take advantage of the toolkit features. At the same time the facilitator collected feedback, comments and suggestions about the toolkit.

The participants were a heterogeneous group of 8 people from different countries such as Brazil, China, Colombia, Italy and The United States of America. They were professionals, academics and students.

## 2.1 The 'Sharinc' Toolkit

The 'Sharinc' Toolkit is an upgrade from previous tested versions named I-SBS Toolkit designed to understand and analyse the structure and the exclusion variables in a SBS. The 'Sharinc' Toolkit is composed by a template printed in a A0 format table and a set of 112 cards. The main template of the toolkit is designed according to 9 elements that generally describe the basic structure of a SBS. These elements are:

- the 'Provider' that describes who the main service provider is; the entity that delivers the service;
- the 'Matching system' that is the physical or virtual 'space' where the system 'matches' the different or similar needs between parts;
- the 'Motivation'; it answers the question 'Why?';
- the 'User(s)' that clarifies 'Who is the user?', 'Who is the final user?', 'What kind of needs they have', 'What kind of problems they may have';
- the 'Exchange' component that describes 'What the users will exchange?';
- the 'Support system'; it is the support that the service delivers to understand and solve the customer/users/stakeholders' requests, problems and difficulties and it answers question 'What kind of support is provided by the service?';
- the 'Guarantee'; this element is one of the most important components because trust and safety in a SBS are the main elements for the success of the service; it answers the questions 'What is the element that assures the trust between parts?';
- the 'Space' that describes the physical or the digital environment; 'Where?' is the main question;
- the 'Shared elements'; it answers the questions 'What?', 'What element is really shared?', 'What do the users share?'.

The template of the toolkit works as a matrix with columns and rows. It is graphically organised in three main parts. The 9 common elements are reported in the first and bigger column on the left; each row reports a description and the specific colour of the element. The central part of the template is the space for the subcategories where every row is designed by a set of square with coloured dots. The colours of the dot are the equivalent to the element colour. Different sizes of the dots represent a different influence of the subcategory on the service structure; the central columns present bigger dots highlighting the 'core' of the service structure. The last group of columns on the right is the space for the user reflections about four parameters such 'Exclusions', 'Insights', 'Problems', and 'Solutions'. The 'Exclusions' parameter encourages an investigation about 'who is excluded', the users, the stakeholders, and the entities that are excluded for every element. 'Insights' should encourage the user to describe more considerations about goals, functions and needs.

‘Problems’ is the space where barriers, obstacles, complications should be described for each element and related subcategories. ‘Solutions’ is the space to report possible ‘inclusive solutions’ after the analysis. In addition, the cards identify the subcategories of the main elements. Every card represents a different subcategory and reports; the name and the distinctive colour of the main element; and the name and an icon to indicate the subcategory.

The I-SBS tool was used according to the following three main steps; (i) understanding the 9 elements reported in the first column on the left; (ii) reporting at least one subcategory for each element using the cards as facilitators; (iii) reporting reflections and considerations following the indication in the last four columns on the right.

The workshop data, feedback and results were studied with a qualitative approach and collected in a table according to the following aspects; (i) abstract; (ii) objectives; (iii) participants sample; (iv) methods and tools; (v) results; (vi) findings and remarks; (vii) future developments.



Figure 1 - Figure 2 The analysis phase of the workshop; the participants interact with the ‘Sharinc’ Toolkit.

## 3. Results

### 3.1 Design workshop results

The main design workshop results were the analysis of two services; an existing service and the concept of a new one. Indeed, a group of participants analysed the web community of a famous multinational technology company. The participants looked at the web community as a ‘space’ where it is possible to share knowledge. They used the toolkit to visualise the structure of this service identifying some possible solutions for a more inclusive web community system. The other group used the toolkit with the aim to visualise and manage a service concept based on data sharing. In particular, they used the toolkit to consider aspects such as the security and the privacy in this kind of services. According to these topics they opened a discussion about the relationships among the different subcategories with the aim to visualise the structure of the service concept. They finally gained some reflections about who can be excluded by system in specific subcategories of the service structure.

### 3.2 Results from the participants’ feedback

The main feedback, comments and suggestions of the participants are reported in Table 1. Also, the same table reports remarks and future developments acquired during the workshop activities observing and interacting with the participants.

Table 1. Feedback, comments, suggestions, future developments.

Area of interest	Feedback / comments / suggestions	Future developments
Visual and graphics features	Colours, icons and graphical details emphasise the aesthetic aspect of the toolkit and they are useful for (i) understanding the process; (ii) perceiving the toolkit as a game despite the usage complexity; (iii) engaging participants.	/
Template's layout	The main template of the toolkit allows a useful and detailed visualisation of a service structure especially for existing services. The same template is considered more complex for the visualisations of new service concepts.	Designing new features to support the creation of new service concepts.
Discussion area	The participants spent most of the time reflecting on the structure of the services.	Designing new features to support the 'discussion phase' about 'Exclusions', 'Insights', 'Problems', 'Solutions'.
Usefulness of the toolkit	Designing new services with a human-centred approach (especially if the analysis starts from an existing service). Creating a tangible way to talk about the concepts of 'exclusion' and 'inclusion' in services. Managing complex service structures. Revealing specific problems in the early phases. Encouraging the discussion in a work group. Comparing different services. Mapping conceptual ideas. Revealing market positioning.	Testing the toolkit in different contexts. Designing a packaging for the toolkit. Designing a digital version of the toolkit. Creating a tutorial.
Cards	The cards were correctly used to identify the subcategories. Also they were used as a support to design new subcategories.	Designing more cards to represent more subcategories.
General	The toolkit should be easier and faster to use. It is expected that the Toolkit simplify the ideation phase.	Simplifying the analysis process and supporting the ideation phase with additional features.

## 4. Conclusions

The format applied in this workshop confirms the value of this technique to gain qualitative feedback and suggestions. They are useful to envision possible upgrading of the toolkit despite it being used in a short range of time and with an exiguous number of participants. In addition, the Table 1 suggests a set of possible future developments with the aim to optimise the toolkit in favour of analysing and designing inclusive SBS.

## References

- Aria, M., Favole, A. (2015). La condivisione non è un dono!. [*Sharing is not a gift!*]. In M. Aime, M. Aria, R. Bodei, L. Bosio, A. Caillé, A. Favole, S. Latouche, & L. Serianni (Eds.), *L'arte della condivisione: per un'ecologia dei beni comuni. [The art of sharing: an ecology of the commons]*. Italy: UTET.
- Belk, R. (2007). Why not share rather than own?. *The Annals of the American Academy of Political and Social Science*, 611(1), 126-140.
- Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, 67(8), 1595-1600.
- Clarkson, P. J., & Coleman, R. (2015). History of Inclusive Design in the UK. *Applied ergonomics*, 46, 235-247.
- Clarkson, P. J., Dong, H., & Keates, S. (2003). Quantifying design exclusion. In P. J. Clarkson, R. Coleman, S. Keates, C. Lebbon (Eds.), *Inclusive Design* (pp. 422-436). London: Springer.
- Clarkson, P. J., Waller, S., & Cardoso, C. (2015). Approaches to estimating user exclusion. *Applied ergonomics*, 46, 304.
- Codagnone, C., & Martens B. (2016, January). *Scoping the Sharing Economy: Origins, Definitions, Impact and Regulatory Issues*. Institute for Prospective Technological Studies Digital Economy Working Paper 2016/01. JRC100369.
- Edelman, B., & Luca, M. (2014, January). *Digital discrimination: The case of airbnb.com*. Harvard Business School NOM Unit Working Paper, (14-054).
- Edelman, B., Luca, M., & Svirsky, D. (2016, January). *Racial Discrimination in the Sharing Economy: Evidence from a Field Experiment*. Harvard Business School NOM Unit Working Paper, (16-069).
- Ge, Y., Knittel, C. R., MacKenzie, D., & Zoepf, S. (2016, October). *Racial and Gender Discrimination in Transportation Network Companies* (No. w22776). National Bureau of Economic Research.
- Goodman-Deane, J., Waller, S. D., Williams, E. Y., Langdon, P. M., & Clarkson, P. J. (2011). Estimating exclusion: a tool to help designers. In *Proceedings of Include 2011*. Royal College of Art.
- Jégou, F. & Manzini, E. (2008). *Collaborative services: Social innovation and design for sustainability*. Milano: Edizioni POLI.design.
- Manzini, E., & Coad, R. (2015). *Design, when everybody designs: An introduction to design for social innovation*. MIT Press.
- Summers, L., & Balls, E. (2015). *Report of the Commission on Inclusive Prosperity*. Washington: Center for American Progress. Retrieved from: <https://cdn.americanprogress.org/wp-content/uploads/2015/01/IPC-PDF-full.pdf>
- Waller, S., Bradley, M., Hosking, I., & Clarkson, P. J. (2015). Making the case for inclusive design. *Applied ergonomics*, 46, 297-303.

About the Authors:

**Daniele Busciantella Ricci** has a PhD in Design. He is a fellow of the Laboratory of Ergonomics and Design. He is a member of the Italian Society of Ergonomics and Human Factors. His interest is in human-centred and inclusive design for services.

**Hua Dong** is a Professor at the College of Design and Innovation, Tongji University. Hua founded the Inclusive Design Research Group at Brunel University and Tongji University. She is the international coordinator of the Inclusive Design Research Interest Group (InclusiveSIG).

**Alessandra Rinaldi** is an Architect and has a PhD in Design. She is a Researcher in Design at the University of Florence. Alessandra is a scientific coordinator of the Laboratory of Ergonomics and Design. She is a Professor of Interactive Design at Tongji University.

**Francesca Tosi** is a Professor of Industrial Design at the Department of Architecture, University of Florence. She is a scientific director of the Laboratory of Ergonomics and Design and she is the President of the Italian Society of Ergonomics and Human Factors.

**Acknowledgements:** The authors would like to thank the following for the collaboration: the members of the Inclusive Design Research Center (IDRC) at the Design and Innovation College (Tongji University, in Shanghai, China); the members of the Ergonomics and Design Laboratory at the Department of Architecture DIDA (University of Florence, in Italy); all the participants of the workshop for their valuable comments feedback and suggestions.