

---

# Designing for Sharing in Local Communities

**Lone Malmborg**

IT University of Copenhagen  
Copenhagen-2300, Denmark  
malmborg@itu.dk

**Ann Light**

Northumbria University  
Newcastle upon Tyne  
NE1 8ST, UK  
ann.light@northumbria.ac.uk

**Geraldine Fitzpatrick**

Vienna University of Technology  
Vienna, 1060 Austria  
geraldine.fitzpatarick@tuwien.ac.at

**Victoria Bellotti**

Palo Alto Research Center (PARC).  
Palo Alto, CA 94304 USA  
bellotti@parc.com

**Margot Brereton**

Queensland University of  
Technology  
Brisbane, Australia  
m.brereton@qut.edu.au

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the Owner/Author.  
Copyright is held by the owner/author(s).  
CHI'15 Extended Abstracts, Apr 18-23 2015, Seoul, Republic of Korea ACM 978-1-4503-3146-3/15/04.  
<http://dx.doi.org/10.1145/2702613.2702645>.

**Abstract**

The Sharing Economy has brought new attention to the everyday practice of sharing. Digital tools are changing both what we can do together across neighbourhoods and how we think about sharing our time, materials and skills. It is possible to design to boost resource management, economic wellbeing and social resilience by fostering sharing practices, but do different designs speak to different priorities in design for sharing?

**Author Keywords**

Collaborative Consumption; Local Community; Peer-to-Peer; Sharing Economy; Reciprocity; Timebanking.

**Motivation**

While notions of bartering and sharing are centuries old, there is a rapidly growing interest in the 'sharing economy', its boom in everyday life reflected in the popular press [e.g., 10] in academic research [3,4,5,7, 8,9] and in government interest [6]. Related concepts include timebanking, timesharing, peer-to-peer sharing, collaborative consumption, collaborative economy and so on.

Societies have always sought to make good use of limited resources such as time, space, enthusiasm, and surplus goods and produce. Popular examples for how such things are being shared include Craigslist, Airbnb,

car sharing services, food sharing [8], tool sharing and so on. Many of these reflect new models of economics and distribution of resources.

There are also initiatives around new welfare structures and possibilities for civic engagement based on notions of sharing [e.g. see 8]. This reflects the changing of attitudes towards the welfare systems where citizens for different reasons are in need of care or support. Further, most citizens desire engagement in society and the public sector needs to engage civic society in order to ensure the survival of current levels of welfare (see e.g. the Give&Take project [8]).

'While sharing extends the capacity of households and communities to function effectively, demanding fewer resources and spreading them further, it also generates social and cultural connection, such as knowledge and friendship. ...These activities increase the sense of interdependence and collaborative spirit that is the basis of both fulfilment and resilience in crisis, going to the heart of what makes society sustainable.' [9]

However, while technology has been a key enabler for many of these developments, to date there is only a nascent research agenda around how best to understand and design for sharing in all its various forms and contexts (e.g. [9]). Further these new models of sharing are proving disruptive and governments and societies are still working out how to integrate these models (as evidenced for example by the UK government review on the sharing economy [6]).

This workshop will discuss and create imaginative futures of how can we design for sharing based on civic

and peer engagement in the local. We will discuss and elaborate concepts for sharing that retain knowledge, expertise and abilities of citizens to perform exchange of favours in barter-like ways in the local community. We imagine a future of reciprocal sharing and exchange of professional and voluntary services. The need and opportunity for innovative sharing thinking is underpinned by a number of strong, enabling drivers including societal and economic macro trends, recent findings on the positive effects of prolonged professional activity and voluntary work by seniors, and enabling ICT interfaces and networking tools.

Motivations and drivers behind sharing and how the sharing affects the people involved needs to be discussed. We already see several conflicts of values related to the good neighborhood or good citizenship versus commercial interests related to sharing concepts playing out in media all over the world. We need to address such value conflicts and discuss what we can learn in terms of designing for positive sustainable sharing practices of citizenship in local communities.

The workshop reviews sharing from a social, economic and environmental sustainability perspective, discussing how social cohesion as well as resource exploitation are fostered, and presenting examples of the nuanced work of local initiatives based in the examples of sharing practices (existing or imagined) submitted by workshop participants.

This workshop will invite key researchers actively engaged with topic of sharing and technology support for sharing communities. We imagine workshop participants to be HCI researchers and practitioners with an interest in design for sharing from a technical

platform perspective, from a service design perspective, from a sustainability perspective, with a mutual interest to discuss how we can design to support sustainable citizenship through sharing and what the sharing economy might contribute to local communities and society in general.

### Goals

The overall goals of the workshop are:

1. To bring together researchers and practitioners actively engaged in understanding of and designing for new models of sharing communities, to facilitate the formation of a new sub-community in HCI and collectively map out future research challenges.
2. To review sharing from a social, economic and sustainability perspective and to discuss how social cohesion as well as resource exploitation is fostered.
3. To present examples of the nuanced work of local initiatives based in the examples of sharing practices (existing or imagined) submitted by the workshop participants.
4. To formulate statements/visions regarding sustainable sharing in local communities.
5. To establish a number of imagined, scenario-based sharing concepts based on the preceding discussions and established vision / statements.

### Issues to be addressed

Conceptualising the design and research space around sharing and local communities requires consideration of a number of diverse issues, already touched on. Hence open questions to be explored at the workshop include:

*Creating and sustaining community:* How to create a critical mass to become 'community'? How to create new social practices? How to promote and sustain ongoing engagement and active participation? How to encourage taking as well as giving? What role is there for brokers, facilitators, etc? What is the administrative work required to manage a sharing community?

*Exchange models:* What are the different models of exchange that exist? What are the advantages and disadvantages, best fit, of these for different types of communities? What is exchanged and how? How are exchanges valued? How does 'local' play out?

*Technology platforms:* What is the role of technology in supporting sharing communities? What platforms can be used when where and how? What are common/different features of existing platforms?

*Trust, give and take:* Does social exchange have to be simplified across digital interfaces? How do we address commercial models in the collaborative economy? How does vetting, insuring and validating partners affect the underlying ideas of sharing; of giving and taking? Is there more to sharing than turning empty bedrooms and availability of parking space in crowded cities into cash?

*Lessons learnt:* Based on studies of existing exchange, sharing services: what works, what doesn't work? What are the critical issues?

*Societal and economic impacts:* How do we negotiate the disruptive effects of sharing communities, e.g., on commerce, on governments, etc? What are the implications of new models of commerce, such as taxing, privacy and other risks? How is equity and

inequality managed in sharing systems that go beyond personal sharing?

### Conclusion

Digital technologies are rapidly changing where, how and what we can share. It is timely to look at the interactions that accompany this disruption and identify the key points that the HCI community can offer to practices that improve environmental, economic and social sustainability. Both design and analytic skills will

### References

- [1] Aigrain, P. (2012). *Sharing: Culture and the Economy in the Internet Age*. Vasa
- [2] Baerten, V. (2005). Design for togetherness. *ShangHai*, 59-64. Retrieved from [http://www.academia.edu/download/30857482/Cumulus\\_Proceedings\\_Shanghai.pdf#page=416](http://www.academia.edu/download/30857482/Cumulus_Proceedings_Shanghai.pdf#page=416)
- [3] Bellotti, V., Carroll, J. M., & Han, K. (2013). Random acts of kindness: The intelligent and context-aware future of reciprocal altruism and community collaboration. *Proceedings of the 2013 International Conference on Collaboration Technologies and Systems, CTS 2013* (pp. 1-12).
- [4] Bellotti, V., Cambridge, S., & Hoy, K. (2014). Towards community-centered support for peer-to-peer service exchange: rethinking the timebanking metaphor. *Proceedings of the ...*, 2975-2984. Retrieved from <http://dl.acm.org/citation.cfm?id=2557061>
- [5] Brereton M, Ghelawat S, (2010) [Designing for participation in local social ridesharing networks - grass roots prototyping of IT systems](#), *Proceedings of the 11th Conf. on Participatory Design 2010* p199-202

be brought to bear on how this most central of human activities can be supported and furthered.

### Acknowledgments

Thanks to the AAL programme, and national funding programmes in Austria and Denmark for funding the Give&Take research project and for the UK Digital Economy Sustainable Society Network+ for funding the *Design for Sharing* research project.

- [6] Dept for Business Innovation and Skills. Independent report: Sharing economy review: terms of reference. Retrieved from: <https://www.gov.uk/government/publications/sharing-economy-review-terms-of-reference/sharing-economy-review-terms-of-reference> [Last accessed 6 Oct 2014]
- [7] Ganglbauer, E., Fitzpatrick, F., Subasi, O. and Güldenpfennig, F. (2014). Think globally, act locally: a case study of a free food sharing community and social networking. In *Proceedings of CSCW '14*. ACM, New York, NY, USA, 911-921.
- [8] Give&Take - Designing a reciprocal exchange service for a good and engaged senior life. EU/AAL project 2014-2017. <http://givetake.eu/>
- [9] Light A. and Miskelly, C. (2014). Design for Sharing. Northumbria University / The Sustainable Society Network+.
- [10] The rise of the sharing economy. *The Economist*, March 9 2013.: Retrieved from <http://www.economist.com/news/leaders/21573104-internet-everything-hire-rise-sharing-economy> [Last accessed 6 Oct 2014]