The Little Book of SHARING in the city

Christopher T. Boyko, Claire Coulton, Serena Pollastri, Stephen Clune, Nick Dunn, Rachel Cooper and the entire Liveable Cities Team

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Acknowledgements

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What this little book tells you

This little book tells you about research that we did as part of the Liveable Cities project, looking at sharing in cities.[1] Through a series of conversations with researchers and workshops with citizens of Lancaster and Birmingham in 2015, we conclude that:

- Cities are important hubs for sharing and they always have been
- Sharing is more than just giving something to someone to use- there are a lot of factors to think about when trying to understand what sharing is!
- A way of classifying sharing in cities can help make sense of all the examples of sharing and allow for easy comparisons between examples
- The presence of physical and digital hubs and bridges and the need to promote sharing in different ways are incredibly important to sharing in cities
- There are a multitude of resources about sharing that can be useful if you want to find out more information on the topic
- Well-designed and fun exercises can get people mapping their examples of sharing in cities

This book therefore not only presents our current understanding of sharing, but illustrates how cities and communities can go about understanding the sharing phenomenon in their locality.

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1   Liveable Cities is UK Engineering and Physical Sciences Research Council-funded project involving four universities over 5 years. Our main aim is to transform the engineering of cities to deliver global and societal wellbeing within the context of low carbon living and resource security. For more information about the project, please visit: www.liveablecities.org.uk

Introduction

From early childhood, one of the first lessons our care givers teach us is how to share. We are taught to share our toys, our food and parents with our siblings and other people. As we grow older and become members of a family and community, we might find ourselves sharing things like bedrooms, bus journeys, lessons and gossip. In these examples, we are sharing space, skills and information, but these things aren't all that we share. Before we get into that, though, it makes sense for us to define what we mean by sharing.

What does it mean to share?

A sharing definition and factors affecting sharing

We all probably know what sharing is, but the nuts and bolts of sharing, including the size, scale and things that we share, are rarely discussed out loud or recognised as an act of sharing. At the start of our research, we looked for definitions of sharing and we found very little research in this area. One definition we found, and one that is very popular, comes from Russel Belk (2007), who defined sharing as *the act and process of distributing what is ours to others for their use and/or the act of receiving or taking from others for our use.* This definition is a good start; it suggests that sharing is a social act between one person who owns something and other people who don't own something. A simple example here might be that Jane has baked a large cake. This is too much for her to eat, and rather than throw it away, she takes the cake to work and shares it with her colleagues. Later, we will discuss why Jane didn't just throw her cake away, and why she shared it out. But for now, we'll discuss sharing some more.

In the example above, Jane owns the cake. She bought the ingredients and baked it herself; it is hers and she owns it. However, not everything we share is owned by a single person and shared among people we know. For example, every morning many of us share a bus journey with other people to get to work, or, on a sunny day, we might go to the beach, and we will share this space with hundreds of other people. And many of us shared feelings of sadness with friends on Facebook when

David Bowie died in 2016. In these examples, what we can see is that *ownership* of what is being shared is not just an individual or private thing, but can also be on a much larger, public scale; and what is being shared can both be real (material) or intangible (immaterial). In the first example, the bus company owns the bus, and we pay them to get us to work, but we also share the experience of the journey with other commuters. On the beach, we share the sand, the water, the sun and air with others (the water, sun and air are considered common goods because they are owned by nobody, yet enjoyed in theory by everybody- more about that a little later). The British government might or might not own the beach, but it is used as a common space that all can access. Finally, our sadness at the death of David Bowie was shared electronically, over the Internet, with people and friends who may or may not have wanted to share those feelings with us. These examples confirm what Julian Agyeman, Duncan McClaren and Adrianne Schaefer-Borrego (2013) have discovered: that what we share can be broadly defined as individual, collective or public, and the things we share can be things, services or experiences.

Two other things that impact our understanding of how sharing works are worth briefly mentioning: cost and scale. Sometimes what we share might be free of charge, but at other times, there may be a charge. Continuing with the examples from before, we may not give Jane any money for a slice of her cake because she doesn't want to take money for something she likes making; she'd rather share her masterpieces for free. However, we would definitely pay the bus company to ride on the bus. This might be because we don't want to buy a car to get to work or we might not want to add to the problem of excess traffic on the way to work. So rather than drive our car, we rent a seat for a short while on the bus. And both examples show the scale of sharing: Jane's cake is an example of small-scale (micro) sharing whereas sharing a seat on a bus is more of a large-scale (macro) example of sharing. Either way, it's still sharing and the examples show that it can happen in any numbers of ways.

In addition to his definition of sharing, Russell Belk also uses two terms, *sharing in* and *sharing out*, to describe who shares. When we talk about *sharing in*, we mean that sharing is taking place between close kin, so in this case, a family might all share a television and watch it together. *Sharing out* happens outside of close kin, between members of the community, groups and other individuals, more like Jane sharing her cake with her colleagues, or someone using Freecycle to give away an unused bicycle. So, both *sharing in* and *sharing out* refer to goods and resources that are privately owned by individuals or small groups. But these terms do not cover goods that are owned collectively. James Quilligan (2012) uses two terms to explain

what these are: public goods and common goods. *Public goods*, like parks, swimming pools, roads, education, health and sanitation, are resources that are provided to citizens and managed by local authorities, councils and governments. *Common goods* are collectively owned resources that people manage by negotiating their own rules through social or customary traditions, norms and practices. Here, we might use the example of a language, like English, or French. In these cases, nobody owns the language, and it is managed collectively.

Other terms for sharing

Now that we have broadened out our definition of sharing, we can extend this further to start thinking about different terms that are being used currently when people are talking about and doing sharing things.

In their book, 'What's mine is yours', Rachel Botsman and Roo Rogers (2010) note that there has been a renaissance in recent years linked to sharing, community and collaboration. They noticed things like eBay, lift-sharing, Freecycle, SwapShop, community gardens, car sharing and co-housing were becoming increasingly popular and all embraced elements of sharing, sharing out and redistributing goods for re-use. They call all of these examples *collaborative consumption*, and they include acts of sharing like renting, lending, borrowing, bartering, gifting and swapping. For Botsman and Rogers, collaborative consumption is an umbrella term that covers three distinct areas of sharing:

- The first is *product service systems* (PSS) and happens when people pay to benefit from a product but they don't own it outright. You may be involved in using a PSS when you use your local launderette, or if you hire something, like a car, or a floor sander.
- The second area of sharing is called *redistribution markets*. These use social networks or the Internet to redistribute things either for free, like through Freecycle, or for money. So, if you have ever sold an unwanted Christmas present on eBay, you have taken part in a redistribution market.
- The last area is called *collaborative lifestyles*. This is when people band together to share things like their time, their skills or perhaps space. Co-housing, community gardens or communal kitchens are all examples of this.

Along with collaborative consumption, a number of other terms around sharing are used that may mean the same thing or something similar. Perhaps the most common term is the *sharing economy*, which Benita Matofska (2016) describes as a social and
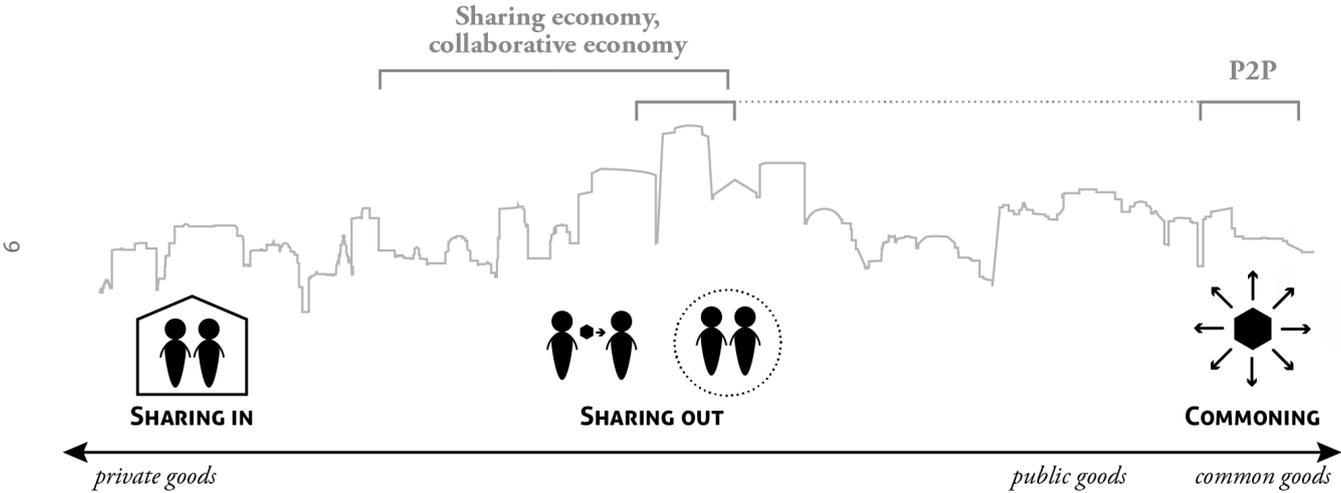
economic system constructed around sharing human, physical and intellectual resources. The sharing economy includes things like shared creation, production, distribution, trade and consumption of goods and services by different people, groups and organisations. Adding to that description, Debbie Wosskow (2014) would say that the sharing economy is all about the use of online platforms that give people shared access to things, such as resources, time and skills. Like Botsman and Rogers' collaborative consumption term, the sharing economy is seen as an umbrella term that covers many aspects of sharing. For example, the *peer economy* refers primarily to person-to-person (or peer-to-peer; P2P) interactions in which people exchange, buy, sell or swap goods and services without a third party involved, like a shop. Other, similar terms include the *mesh economy*; *functional-* or *access-based economy*; *asset-light lifestyles*; *solidarity economy, moral economy*; *alternative economies*; *gift economies and gifting*; and *altruism*.[2]

So far we have discussed sharing definitions, factors involved in sharing and other terms for sharing. To help us better understand some of the connections we spoke about above, we made a visualisation (see *Figure 1*).

Starting at the bottom of the figure, we see that sharing can occur with private property or collective property. Under private property, people can share private goods and these goods can be shared with people you know (*sharing in*) or with people outside your circle of friends and family (*sharing out*). Under collective property, people can share public goods and common goods, and they can be shared with anyone (*commoning*). When people are sharing private goods with other people who are not part of their circle of friends and family, they may use a third party or independent source to earn money (*sharing economy*) or to give something – sometimes in return for something else – to a less well-known person (*collaborative economy*). When people are sharing public goods and common goods, there is no third party or independent source helping out with the exchange; rather, the sharing happens directly between two people (*P2P*, although P2P also can occur with private goods sometimes).

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2   You can find more information about these terms from the following authors: Lisa Gansky (2015): mesh economy; Rachel Botsman and Roo Rogers (2010); Bryant Cannon and Hanna Chung (2015); Oksana Mont (2002); Debbie Wosskow (2014): functional- or access-based economy; asset-light lifestyles; Ethan Miller (2010): solidarity economy; William James Booth (1994); Andrew Sayer (2000): moral economy; Adrian Smith and Alison Stenning (2006); The Community Economies Collective (2001): alternative economies; Eric J. Arnould and Alexander S. Rose (2016); and Marcel Mauss (1967): gift economy, gifting and altruism.

Figure 1. Describing sharing.

Sharing economy,
collaborative economy

P2P

SHARING IN

SHARING OUT

COMMONING

private goods

public goods

common goods

Taken within the context of sharing-driven companies only, Rachel Botsman (2015) has her own spin on what qualifies as collaborative sharing. She believes there are five, key ingredients underpinning any sharing endeavour:

- Unlocking the value of unused or under-utilised assets for monetary or non-monetary benefits;
- A clear, values-driven mission that is derived from meaningful principles, such as transparency and authenticity, which inform short and long-term strategic decisions;
- Providers who are valued, respected and empowered and whose economic and social livelihoods improve through employment in their respective companies;
- Customers who benefit from getting goods and services more efficiently, which mean they pay for access instead of ownership;
- Distributed marketplaces or decentralized networks that create a sense of belonging, collective accountability and mutual benefit for the communities they are helping to build and sustain.

What does sharing have to do with cities, and why is this important?

As the title of this Little Book hints, we are concerned with sharing in cities. We are interested in cities because these urban environments are where sharing has always happened and been intensive in order for people to survive. Paul Bairoch (1998) believes that people began living together in larger and larger numbers around 12,500 years ago as they started to farm food, rather than rely on hunting and gathering. As these groups of people grew into larger communities, they established villages, towns and cities. The success of these communities was based upon people sharing space, food, skills and trading opportunities in order to flourish, as they realised that it was easier to work together to share the effort and rewards than to go it alone. Cities, though, aren't just places where sharing takes place; they are a product of shared creation and co-production. They are places that have come into reality, survived and succeeded due to shared endeavour.

So, with our interest in cities and making them better places to live, work and play, we are keen to understand more about the sharing that takes place in them. But why is this important? For one thing, we believe that if more people shared what they had (mostly the good stuff), then we might use and consume less stuff. This could lead to us using less carbon and fewer non-renewable resources, which could help in the fight against climate change in cities. Sharing also has been known to increase

people's wellbeing,[3] so if people are happier and get to know others in their cities in the process of sharing, why not do it more? A third reason for wanting to know more about sharing in cities is that if those in power, like local governments (and increasingly businesses), see that sharing is helping the planet, helping our wallets and helping citizens cope with the pressures and stresses of living where they do, then perhaps they'll invest more money to make sharing 'a thing'. Places like Seoul in South Korea and Amsterdam in The Netherlands are already doing it and seeing the benefits, so why aren't more cities trying it (look at www.shareable.net for a list of sharing cities around the world)?

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3   You can research about the relationship between sharing and wellbeing here: Frank Penedo and Jason Dahn (2005) and Feng Wang, Heather Orpana and others (2012): exercise and wellbeing; Adam Martin, Yevgeniy Goryakin and Marc Suhrcke (2014): active commuting and wellbeing; and Mathew White, Ian Alcock and others (2013): green space and wellbeing.

Our research workshops

To help us understand more about sharing in cities, we asked ourselves a simple question: 'What is a sharing city?' We realised that while *sharing* and *cities* are two very current topics of research, there was no good understanding in the academic literature of what a sharing city is or does. We felt that knowing the answer might help city decision-makers, city leaders and citizens rethink how cities, with all their resources (economic, cultural, physical, political and social), can grow and encourage sharing. So, in order to find out more, we thought we would start by becoming familiar with sharing and collaborating in two of the cities where our universities are based: Lancaster and Birmingham. We wanted to see what was going on locally with sharing that we did not already know about, or that we had not considered before, so that we could leverage local strengths and aspirations to explore possibilities for the future.

To carry the research forward, we organised two workshops with local citizens, both individuals and groups, who were already involved in sharing initiatives. The first took place in Lancaster with about 28 people and the second in the ward of Moseley and Kings Heath in Birmingham with 22 people.[4] At these workshops we mapped current, local sharing initiatives, discussed worst-case scenarios for sharing and imagined future cities in which positive sharing initiatives could be amplified, new forms of sharing could be created and barriers to sharing could be destroyed.

The first task at the workshops was to ask the participants to write down an example of sharing that they were involved in, or were aware of, locally. We then asked the participants to place their example on our *map of sharing*. We used the map to make

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4   In Lancaster, attendees worked in the public sector (6 people), universities (3 people), sharing-related businesses (5 people) and were part of grassroots groups (14 people). In Birmingham, participants were part of the public sector (4 people), universities (1 person), sharing-related businesses (5 people) and grassroots groups (7 people) (5 people didn't specify what they were apart of).

the sharing city visible, that is, to see all the different kinds of sharing that were happening in each city.

The map of sharing at the Lancaster workshop, March 2015.

In the second exercise, we divided the participants into small groups of five or six and asked them to think about and write down what they thought was the worst-case scenario for their city and the worst-case scenario for sharing in their town (they did this first on their own and then they shared their ideas within their groups and finally with everyone at the workshop). This was a very important exercise, as it allowed participants to voice and acknowledge their worries and concerns. Instead of holding on to these negative thoughts, we asked participants to dump their worst-case scenarios into the *crate of doom*, which was stored away so no one could see the negativity again.

Crate of doom, used to store participants' worst-case scenarios about cities and sharing in cities at the Lancaster workshop, March 2015.

Moving on from this exercise, we asked participants to think about their earlier examples of sharing and to work together in their groups to recognise connections or potential questions they had about sharing in their cities. We also asked the groups to think and talk about what they might learn, adopt or do differently based on the other people's examples or from possible connections.

Our final task was a design exercise. We asked all the groups to design the shared city, taking the ideas they had generated throughout the day, to think about how this might shape the city so that sharing was able to grow and become the norm. We specifically requested that the groups consider what they might amplify, create or destroy in their city to create the sharing city.

Designing the sharing city at the Lancaster workshop, March 2015.
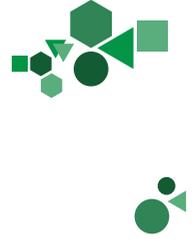
A way to classify sharing in the city

Based on all the information we gathered from the two workshops in Lancaster and Birmingham, and a considerable amount of discussions about sharing cities with colleagues on the Liveable Cities project, we categorised all the different kinds of sharing that happens. We created the following table that can be used to classify sharing in the city, which comes from our own work as well as the work of other people who have studied sharing (like Julian Agyeman and Duncan McLaren).

This table consists of 9 questions in the first column, a set of prompting questions in the second column and a space to answer those questions in the third column.

Table 1. Classifying sharing in the city.

Questions	Prompting Questions	Answers
1. What is being shared?	Are you sharing a material, a product, a service, an emotion, a skill or a process for governing something?	
2. How is it being shared?	Are you sharing physically, digitally or a combination of both? (sharing a meal versus sharing a text)	
	Is it being shared from the top down or the bottom up? (sharing news from a boss to his/her employees versus sharing food you grew with everyone in your neighbourhood)	
	Is it being shared formally/highly regimented or informally? (sharing blood from a transfusion versus sharing lunch with a friend)	
3. Who are the key people involved in sharing?	Who are the key people currently and in the future involved in the sharing example?	
4. What is the human scale of sharing?	Is it shared between a few people or can everyone share it?	
5. What is the geographic scale of sharing?	Are you sharing with people in your household? Your local street? Your neighbourhood? Your city? Your country? Or internationally?	

Questions	Prompting Questions	Answers
6. Why is it being shared?	Are you sharing: Out of necessity (sharing because you would not survive without it)? Out of altruism (sharing because you feel generous)? To help the planet (lowering air pollution by sharing your car with colleagues)? To shake things up (sharing electricity that you generated from your solar panels with your neighbours, rather than using the grid)?	
7. When is it being shared?	At what time of day, month and year is the sharing happening? Is it happening once in a while, once a day or less frequently?	
8. What are the challenges with this specific example of sharing?	Are there issues around risk, trust, privacy, timing, money or ownership that could negatively affect the sharing?	
9. How can the challenges be addressed?	What can the people involved do to ensure that any issues raised do not negatively affect the sharing?	

The point of the questions is to really understand in greater detail the different types of sharing that happens in cities, including who shares; how, what and why they share; and what are challenges we face with the sharing we do. Using this classification, we can create a list of sharing examples and begin putting them on a spatial map with detailed information to see where sharing occurs in cities. This can be helpful for a number of reasons, such as seeing where complimentary sharing happens (as in nearby garden allotments) and thinking about what things support the sharing examples (like having land for an allotment).

To illustrate what we mean, here are some sharing examples using the classification of sharing in the city:

Food sharing

This example comes directly from the workshops that we did with local people in Lancaster and Birmingham, where we asked them to give us instances of sharing in their neighbourhood or city. Almost half of the sharing initiatives we got related to food, either sharing food that was grown or sharing food with others during a meal. The popularity of food sharing might be because it covers a lot of issues, such as our lack of understanding about how to grow our own food or where food comes from, limited access to local produce that we can afford and the increasing loss of farmland for development. Here are two of the sharing schemes the participants in our workshops talked about:

Urban harvest

This scheme comes from Birmingham and involves members from the local community picking fruit from trees in other people's gardens. What gets picked is shared between the people who own the trees and the people picking the fruit. Aside from eating the fruit, members often make jam and share it with other members.

Incredible Edible Lancaster

A chapter of Incredible Edible, this is a local food movement that helps communities to be stronger by growing food (mainly herbs, fruit and vegetables) locally, by educating people about food growing and supporting people in buying food locally. The Lancaster chapter has a community-managed garden in town and at Lancaster University, both of which are open for anyone to use.

On the surface, both of these sharing schemes appear to be similar, as they deal with growing and harvesting food for people who are not always the owners of that food (or the owners of the things that produce the food). If we put these schemes into the sharing classification table side-by-side, however, we can begin to see some subtle differences between them (see *Table 2*):

Table 2. Two food sharing schemes in Birmingham and Lancaster.

	Urban Harvest	Incredible Edible
1. What is being shared?	• Fruit from trees in householder's gardens • Jam, made from the fruit	• Edible plants in public spaces
2. How is it being shared?	• Physically, through the use of private gardens • Physically, through the growing and taking of fruit • Anyone with land and trees can be involved • Anyone who wishes to pick fruit can be involved • Largely informal- although people sign up to be part of the scheme, the precise details of when and how the fruit gets picked and distributed is left up to the people involved	• Physically, through the public spaces maintained by volunteers • Physically, through people taking produce • Anyone who is part of Incredible Edible can plant in public spaces • Informal sharing- anyone can grow and pick the plants for their own use
3. Who are the key people involved in sharing?	• Householders with fruit trees • Pickers	• Incredible Edible planting team • Anyone wishing to pick/use edible plants
4. What is the human scale of sharing?	• Between householders with private gardens and pickers	• Anyone can share the plants, although the community living nearby often benefits the most
5. What is the geographic scale of sharing?	• At the scale of the city	• At the scale of the city
6. Why is it being shared?	• Householders can share extra land/trees • Pickers can share skills and time • To give pickers the chance to share in fruit harvest	• To educate people about edible plants • To give people in communities an opportunity to eat healthier

	Urban Harvest	Incredible Edible
7. When is it being shared?	• Seasonally, when fruit is ready to be harvested	• Seasonally, when edible plants are ready to be harvested
8. What are the challenges with this specific example of sharing?	• Scheme is limited to householders with fruit trees • Pickers may not show up on-time/at all, creating mistrust issues with scheme • Managing fruit trees and potentially wasting harvest • Changes in town planning policy does not allow scheme to continue	• Having vacant land and kerbsides, preferably in or near urban centres • Passersby destroying plants for no good reason • Managing edible plants and potentially wasting harvest • Changes in town planning policy does not allow scheme to continue
9. How can the challenges be addressed?	• Through trusting, interpersonal relationships and networks • Paying attention to town planning policy	• Through trusting, interpersonal relationships and networks • Paying attention to town planning policy

Similarities and differences between the food sharing schemes

Both schemes share what they have through physical means – picking fruit, herbs etc. – and are done at a fairly informal level (there are no tight rules or regulations). Anyone who wishes to pick can be part of the schemes, with Incredible Edible not requiring any details from pickers: people can just take food from edible plants whenever and wherever they want (within reason). In addition, the schemes operate when the plants are ready for harvest at the scale of the city boundaries, although some schemes might be more contained within a certain area of the city than others (e.g., city centre, suburban neighbourhood). Finally, the two schemes have some similar challenges, such as thinking about what to do with food waste from plants that are not harvested in time and how to respond to potential changes to planning policies around the growing of food for non-commercial benefit. In both cases, creating and maintaining strong, trusting relationships and networks, and keeping abreast of city planning policies, are ways that the schemes can minimise the impact of these challenges.

Whereas both sharing schemes deal with locally-grown food, one is quite specific about what *kind* of food they want to share – fruit from fruit trees and jam produced from the fruit – whereas the other one is more general (it can be herbs, fruit or vegetables- whatever people want to plant). Also, the people who are involved in both schemes are different: Urban Harvest really only includes people who have private gardens with fruit trees and those who want to pick the fruit (which can be anyone interested in fruit picking!), and Incredible Edible involves anyone who wants to grow edible plants and anyone who wants to eat and learn about them. A third difference is the reason for sharing: with Urban Harvest, people have trees bearing fruit that need to be picked and other people have the time and skills to harvest the fruit; with Incredible Edible, there is an emphasis on education and making heathier choices when it comes to food. Finally, regarding challenges, the success of Urban Harvest relies on working with people who have private gardens with trees and managing to schedule times to pick fruit that are beneficial for both pickers and trees owners; the success of Incredible Edible relies on having available land to grow edible plants and protecting the plants from damage from passersby.

Sharing energy

Another example of sharing in cities comes from members of the Liveable Cities team who are looking at how we use energy in the home and its effects on our wellbeing as well as how and where energy flows within cities. Two schemes within the UK make for an interesting comparison of how energy can be shared innovatively between people and organisations without the need to completely rely on the UK National Grid (there are schemes in other countries worth checking out, such as the tri-generation initiative in Sydney, Australia) (see Table 3).

Combined Heat and Power (CHP), Woking Borough Council and the Thameswey Group

Woking Borough Council established a not-for-profit company called the Thameswey Group in 1999 to achieve its objectives of having more sustainable energy supplies in the area. They developed a CHP system that distributes low carbon heating, cooling and electricity to Council buildings, private companies, charities and local customers.

Smart local grids, Rose Hill, East Oxford

In Rose Hill, Oxford City Council and non-profit sustainability group, Bioregional, have been experimenting with storing solar-generated electricity within a local community. They are using rooftop solar panels (or photovoltaics) and batteries (to store the electricity), which can then power some electronic devices, like laptop computers, as well as LED lighting in the home. This system of using small-scale, local electricity generation (or 'micro-renewables') can help to reduce peak use of the National Grid, reduce carbon emissions from grid electricity and increase the security of energy supplies.

Table 3. Two shared energy schemes in Woking and Oxford.

	Combined Heat and Power	Smart local grids
1. What is being shared?	• CHP • Gas • Electricity • Heat • Pipes	• Solar panels • Batteries • 'Smart software' (LED lighting) • Electricity
2. How is it being shared?	• Physically, through small pipes and the local grid • Both a top-down and bottom-up approach • Formal	• Physically, through infrastructure • Digitally, through software that can buy, sell or store electricity for the benefit of community interests • Bottom-up • Formal
3. Who are the key people involved in sharing?	• Local authority • CHP company • Businesses • Charities • Residents	• Community of 30 members (some of whom produce and some of whom consume)
4. What is the human scale of sharing?	• CHP is shared by everyone who is involved in the scheme	• Electricity is shared between the community of 30 members
5. What is the geographic scale of sharing?	• Local neighbourhood	• Local neighbourhood

	Combined Heat and Power	Smart local grids
6. Why is it being shared?	• A reduction in carbon use • Economic savings	• Users are not dependent on National Grid upgrades • Users do not have to negotiate with energy suppliers and bureaucracy
7. When is it being shared?	• Constantly	• It depends on demand and pricing
8. What are the challenges with this specific example of sharing?	• The vested interests of the Thameswey Group to improve profit over service • A lot of red tape, making the uptake of the service quite slow • Changes in town planning and energy policies do not allow scheme to continue	• The capacity of the National Grid to accept electricity from the solar panels at a reasonable price • Changes in town planning and energy policies do not allow scheme to continue
9. How can the challenges be addressed?	• Ensuring that the Thameswey Group continues to be a charitable business • Improving bureaucracy so that users do not have to jump through a lot of hoops to get the service • Paying attention to town planning and energy policies	• The creation of software that can buy, sell or store the electricity, helping community members to get the best price and satisfy other community requirements • Holding frequent talks with the National Grid to establish minimum price guarantees • Paying attention to town planning and energy policies

Similarities and differences between the energy sharing schemes

Both schemes physically share electricity in a formal way; that is, people have to sign up to be part of the schemes to take advantage of the benefits. The schemes take place in local areas of cities, and electricity generated is shared only by those on the schemes (in the case of the smart local grids, if there is excess electricity, it is sold back to the National Grid, with members directly profiting). In terms of common challenges, both schemes need to pay attention to current and future town planning and energy policies, as priorities could change and remove incentives for local authorities, businesses and residents that want to adopt local energy sharing.

In terms of differences between the two schemes, there are a few. The people involved in the CHP scheme include the public, private and third sectors as well as residents; people in the smart local grid scheme are 30 members of a local community. The kind of infrastructure and outputs that are being shared also varies somewhat, with the CHP scheme using gas, heat and pipes, and the smart local grids scheme using solar panels, batteries and smart software. In addition, the former scheme uses formal rules and regulations (top-down) as well as members' inputs (bottom-up) to ensure the operation runs smoothly, whereas the latter scheme is more top-down. An example of this top-down approach in the smart local grids scheme is the adoption of digital software by the community members, which can be used to buy, sell and store electricity to the National Grid. Moreover, the reasons for taking part in the schemes are different: the CHP group wish to reduce their carbon use (and, thus, lower carbon use generally) and save money while the smart local grids group don't want to rely on the National Grid for their electricity and don't want to deal with energy suppliers, especially all the red tape that goes with doing that.

Two other differences between the schemes relate to when sharing takes place and the challenges faced by each energy sharing scheme. Regarding the first issue, the CHP scheme shares electricity between members constantly whereas the smart local grids scheme shares electricity between themselves and the National Grid when there is demand, and community members can get a good price for their excess supply. Regarding the second issue, the CHP scheme can be negatively affected by the vested interests of the not-for-profit company if they decide to change their business model and choose profit over service. A lot of red tape can also slow down the service and make some potential people or companies reluctant to join the scheme. Ensuring that the company keeps its charitable status and improves its bureaucracy can help with these challenges. With the smart local grids scheme, there is a potential problem

if the National Grid doesn't give community members the best – or even a reasonable – price for their electricity. Creating software that will tell members when are the best times to buy, sell and store electricity, and holding frequent talks with the National Grid to guarantee minimum prices might lessen some of their challenges.

Sharing wellbeing

This last example of sharing in cities is slightly unusual because people generally don't share their wellbeing like they might do with food or energy. While people can talk about their wellbeing through emotions – "I'm really happy that I got a new job so I'll share how happy I am with you!" – this example is more about how the design of a place can help people feel better, physically and emotionally, by encouraging them to be more active and use areas like parks, which get people back to nature. Based on our internal team discussions about wellbeing and sharing, we would like to show the One Brighton development in our classification of sharing in the city (see Table 4).

One Brighton

An eco-village near Brighton train station, with flats, offices, community space (like rooftop mini-allotments) and a café. Developed by Crest Nicholson and BioRegional Quintain in 2007, the scheme was designed using the 10 principles of One Planet Living. These emphasise the health and happiness of the people using the eco-village; creating affordable housing; encouraging people to buy locally; using sustainable materials in the development; reducing, reusing and recycling all waste and so on. Based on initial reports by the developer, the scheme was deemed successful in terms of wellbeing: residents knew more of their neighbours and crime and fear of crime was lower than in traditional communities. There also was some indication that residents had better physical health than those living in other places, although this information was hearsay.

Table 4. A shared wellbeing scheme at One Brighton.

	One Brighton
1. What is being shared?	• Sustainable living between those living and working in the eco-village (e.g., rooftop mini-allotments)
2. How is it being shared?	• Physically, through shared common spaces (e.g., community centre) as well as access to public transport and a car club • Bottom-up • Formal and informal via a community trust
3. Who are the key people involved in sharing?	• Residents • Some local businesses
4. What is the human scale of sharing?	• The shared spaces are shared by everyone who lives and works in the eco-village
5. What is the geographic scale of sharing?	• Local neighbourhood
6. Why is it being shared?	• Wanting to live within One Planet means
7. When is it being shared?	• Constantly
8. What are the challenges with this specific example of sharing?	• A lot of local authority red tape, making it difficult for residents to feel the benefits of the eco-village in the short- and long-term • Changes in town planning and transport policies make access to public transport more difficult for residents
9. How can the challenges be addressed?	• Reducing bureaucracy and "can't do that" attitudes to eco-developments • Paying attention to town planning and transport policies

Similarities and differences between the wellbeing sharing scheme and more conventional developments

If we consider how the One Brighton development is similar and different to more conventional developments that you might see in any UK city, we are able to hypothesise about why One Brighton helps promote wellbeing. First, whereas traditional developments often consider how many people they can squeeze into a space for the most profit, One Brighton has had a slightly different focus: making an eco-village that puts the environment on par with the residents and local businesses. They have done this mainly through the constant sharing of space and infrastructure (for growing, for putting down pipes, for spending time together). Some conventional

developments also do this, but it seems to be done out of necessity, rather than because they want to do it (e.g., the City Council made them set up an allotment).

Second, One Brighton set up a community trust ('bottom-up'), which acts as a kind of residents association to represent and support residents in living more sustainably. The trust gives residents a voice in how things are run as well as lets them monitor the development to ensure the 10 principles of One Planet Living are followed. This stands in contrast to more conventional developments where the developer and his or her team get to decide on most things (with critical input from the City Council), and residents don't really have a strong say in what happens after construction. In both places, there are formal mechanisms to discuss issues, but the community trust at One Brighton also helps residents to talk about issues informally.

Third, the level of sharing that occurs at One Brighton extends to the whole eco-village and beyond. Residents and local businesses share space and infrastructure with each other – not just in certain areas for certain types of people – and a concerted effort was made to think about how things like public transport could link up with the eco-village. From what we hear about some more traditional developments in the UK in the past, they also thought about how their schemes fit within the wider city (without needing to be told by the City Council to do this!) and made sure that everyone had access to the various places there. These ideas appear to be less common nowadays: you only have to look at the 'poor doors' found in mixed-tenure communities to see that some people just don't have the same privileges as others to access their own housing developments.

Finally, both One Brighton and conventional developments have to keep an eye on town planning and transport policies, as they might change their priorities, making it harder to design and construct sustainable developments. This is especially important for developers like Crest Nicholson (BioRegional Quintain went bust during the 2008 recession) who want to create more eco-friendly projects, but are discouraged by all the red tape involved in experimenting with new (or old) materials, trying out new forms of living and so forth.

Emerging themes across all the examples of sharing in cities

When we first look across the examples of sharing from our workshops in Lancaster and Birmingham only, we can say some interesting things about sharing at the local
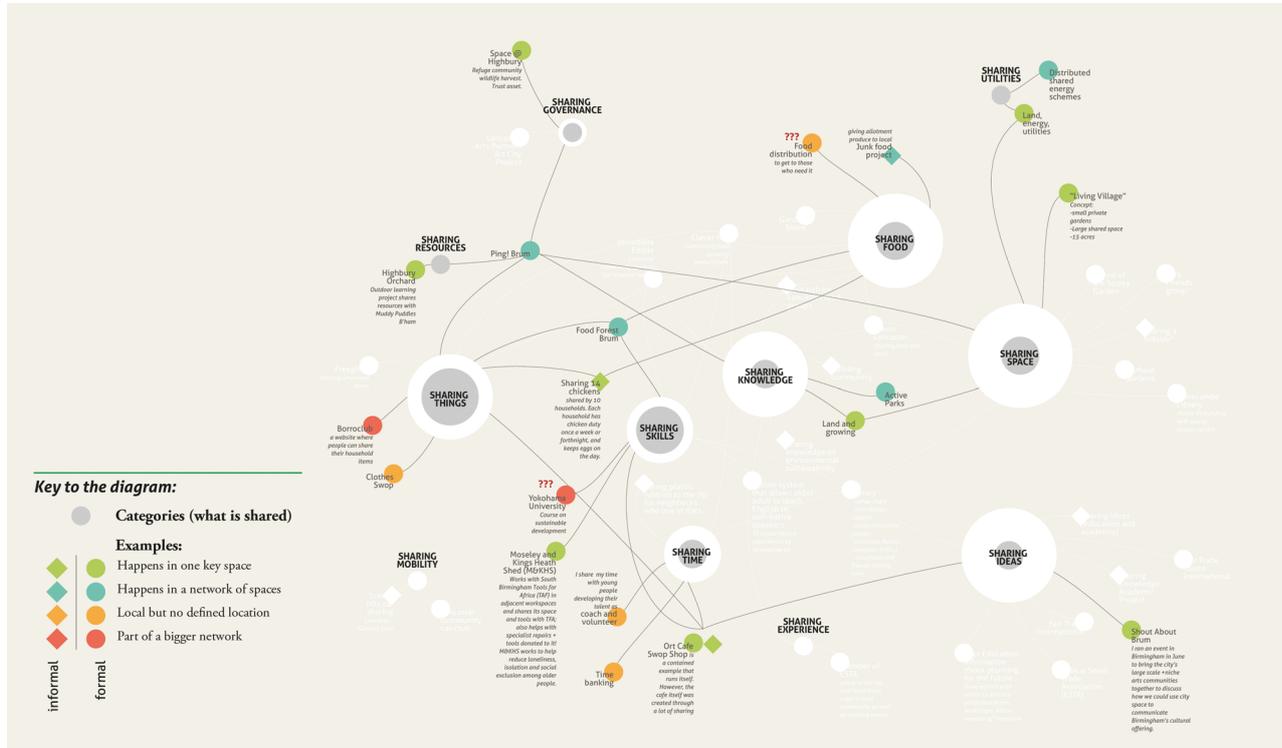
level. First, people at the workshops tended to share space, knowledge, objects, food and ideas more than any other type of sharing. Second, some of the examples were not only about just one type of sharing, but may involve several types. For example, if a person wrote about a community garden as an example of sharing, he or she might talk about sharing food, skills, knowledge, space and time. Third, participants at the workshops did not mention examples of sharing that are more associated with the sharing economy, like Uber or AirBnB. Rather, they considered local sharing examples or local chapters of broader sharing examples, such as Incredible Edible Lancaster. It seemed like sharing in Lancaster and Birmingham centred on formal and informal meetings among people and groups in the key spaces in each city.

In addition to sharing in general, both cities had their own peculiarities. In Lancaster, food examples based on sharing were very popular, particularly when discussed in the context of helping the environment. Sharing knowledge around how to grow food, how to reduce the use of fossil fuels and so on were important parts of Lancaster's examples. This makes sense, as many community groups in the city have an environmental focus and there are two universities within the city's boundaries (see Figure 2).[5]

In Birmingham, the Moseley and Kings Heath ward showed a slightly different focus. While food sharing examples were plentiful, the more frequent examples revolved around sharing skills, time and things. There also seemed to be a need to strengthen ties within and between different groups and communities. In these cases, having both events and spaces for people to come together and borrow, mend, swap etc. was key (see Figure 3).

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5   To have a better (and more interactive) look at this and the remaining figures in this book, please check out the following report: http://liveablecities.org.uk/outcomes/sharing-city-workshop-report

Figure 2. Map of sharing examples in Lancaster (sharing in Moseley and Kings Heath is coloured in white and kept in the background for reference).

Key to the diagram:

Categories (what is shared)

Examples:

Happens in one key space

Happens in a network of spaces

Local but no defined location

Part of a bigger network

informal

formal

Figure 3. Map of sharing examples in Moseley and Kings Heath, Birmingham (sharing in Lancaster is coloured in white and kept in the background for reference).

Space @ Highbury
Refuge community wildlife harvest. Trust asset.

SHARING GOVERNANCE

SHARING UTILITIES

Distributed shared energy schemes

Land, energy, utilities

???
Food distribution
to get to those who need it

giving allotment produce to local Junk food project

"Living Village"
*Concept:
-small private gardens
-Large shared space
-15 acres*

SHARING RESOURCES

Ping! Brum

Highbury Orchard
Outdoor learning project shares resources with Muddy Puddles B'ham

SHARING FOOD

Food Forest Brum

SHARING SPACE

SHARING THINGS

Sharing 14 chickens
shared by 10 households. Each household has chicken duty once a week or fortnight, and keeps eggs on the day.

SHARING KNOWLEDGE

Active Parks

Land and growing

Borroclub
a website where people can share their household items

SHARING SKILLS

Clothes Swop

???
Yokohama University
Course on sustainable development

SHARING MOBILITY

Moseley and Kings Heath Shed (M&KHS)
Works with South Birmingham Tools for Africa (TAF) in adjacent workspaces and shares its space and tools with TFA; also helps with specialist repairs + tools donated to it! M&KHS works to help reduce loneliness, isolation and social exclusion among older people.

I share my time with young people developing their talent as coach and volunteer

SHARING TIME

SHARING IDEAS

SHARING EXPERIENCE

Ort Cafe Swop Shop *is a contained example that runs itself. However, the cafe itself was created through a lot of sharing*

Time banking

Shout About Brum
I ran an event in Birmingham in June to bring the city's large scale +niche arts communities together to discuss how we could use city space to communicate Birmingham's cultural offering.

Key to the diagram:

⬤ Categories (what is shared)

Examples:

◆ (green) Happens in one key space
◆ (teal) Happens in a network of spaces
◆ (orange) Local but no defined location
◆ (red) Part of a bigger network

informal   formal

When we looked at the examples from our workshops as well as the various Liveable Cities project meetings and the five examples in the last section, we found three emerging themes about sharing in cities that were really interesting:

1. Hubs, both physical and digital, are key to sharing;
2. Bridges, both infrastructural and relational, are also key to sharing;
3. Sharing is a value that needs to be explicitly promoted.

We will now talk about each emerging theme in turn:

Sharing hubs

In the case of sharing in cities, our research has shown that hubs refer to two things: (1) physical places where people can come together and share something; (2) digital spaces where people can come together and share something. Both are important in the 21st century for people to share.

A physical place can be anywhere in cities, from very public (e.g., a library) to very private (e.g., living room in a house), that allows people to share. What we heard from our workshop attendees in Lancaster and Birmingham especially was that dedicated spaces in cities were essential for formal sharing to take place (e.g., meeting hall), but also for people to informally and even accidentally meet and interact (e.g., café). Many of the places where people would like to share in cities already exist, which is great, but local governments and businesses could be doing more with places in cities that are not used or underused, such as an empty patch of land, schools after hours or quiet roads. It was in those places where alternative uses could be imagined and new ideas for sharing could blossom.

The digital spaces used for sharing in cities often take the form of Social Networking Sites, like Facebook, Twitter or Instagram, or a group's dedicated and personal website. These are often quite easy to set up (maintaining them is another matter!) and provide opportunities to share news, events and information, with the group not all needing to be in a specific place at a specific time to share (e.g., to upload a picture or newspaper article). The digital spaces may be open to the public and, therefore, shared with similar groups or communities as well as the local government who might be able to provide resources to help the groups. Likewise, some or all of the websites can be closed only to members so that more private or mundane things can be shared (e.g., scheduling the next in-person meeting). Often, but not always, sharing in digital spaces complements the sharing that takes place in physical places

(e.g., people chatting about time banks in online chatrooms might get together in-person to help each other out).

In summary, physical and digital hubs act as centres for getting together, discussing issues and information and making decisions. From there, groups and communities can go out and do what they said they'd do. As such, hubs are incredibly important to sharing in cities, as they provide space and time to reflect on the nature of sharing.

Sharing bridges

Bridges can be defined in several different ways, but the definition that we are most interested in relates to the idea of connecting something together. A bridge might be a piece of infrastructure that goes over a river or a railway track to connect two bits of land. It also could be something that brings together two separate, yet possibly related, ideas or groups. The bridge could be physical, but it also could be digital. And while the first one is more physical in terms of sharing in cities, the second one is more relational.

In the Lancaster workshop, people mentioned that better connections between Lancaster and Morecambe (a seaside town approximately 15 minutes by car and to the northwest of Lancaster) were needed to extend the positive impact of sharing. There were a lot of great examples of sharing in Lancaster, but the River Lune, which cut in between the two places, meant that the benefits on one side of the river often didn't make it to the other side. One solution was to build more physical bridges in strategic places that could get people – and sharing – moving across to either side more easily. This would certainly help to distribute the benefits of sharing, and help out Morecambe, which was seen as more deprived than Lancaster.

In the Birmingham workshop, people talked about the need to have something that could bring their sharing ideas together. For them, a digital hub in the form of a Facebook page for the ward they were living in made the most sense. It was here that different groups or communities could log on to the public website and look at what others had posted about sharing. The groups could then start to create links and relationships between what they were doing and what other people were doing. For example, a gardening group might go on to the Facebook page and see that there is another gardening group in the next neighbourhood. The first group might contact the second group and ask to get together so they can share tips for growing veg. What's nice about creating a digital hub like this is that the bridges being made can connect quite dissimilar things, too. Using the same example, the first gardening

group can go on to Facebook and see that a community of bookmakers want to share their talents for creating wonderful book covers. Although it might be difficult to see any association, the gardeners could email the bookmakers about creating little booklets about what they grow and the gardeners could share their harvest with the bookmakers in return for their help. The email conversation could be a kind of digital bridge, which could then morph into a digital-and-physical bridge when the two groups meet up and discuss how they are going to share. In this example, the digital hub creates a new relationship (or bridge) between two groups who might otherwise never speak to one another.

Promoting sharing

Finally, for sharing to work well within local communities, it needs to be promoted. From our research, we saw that when some people, say those in Government or industry (and sometimes in academia), spoke about sharing, they tended to name big, national or international schemes like Uber, AirBnB and the like. If you remember from our earlier section when we defined sharing terms, these schemes are often discussed under the heading of 'sharing economy' and get a lot of media attention. However, the kinds of sharing that we found when speaking with people, groups and communities as well as our research team often took smaller, more local forms. These included:

- More traditional or 'institutional' forms of sharing, such as sharing in libraries, community centres or religious spaces;
- Informal models of sharing, like borrowing from a neighbour or having a potluck with friends;
- Grassroots initiatives, like Incredible Edible.

These forms of sharing are mostly created by different communities who don't have million-pound marketing budgets, like the Ubers of this world. Thus, they tend not to promote themselves so well through physical and digital means, and their messages might get lost among the sea of other sharing groups and charities that are out there as well as commercial businesses. However, local, regional and national governments aren't doing their part either, as they need to recognise the important role that these sharing groups play in making cities what they are today. Without these forms of sharing, cities would not be able to function properly, so it's key that as many examples of sharing are known and promoted. One way to help people know more about sharing schemes in cities is to map or visualise sharing, which we'll talk about in the next section.

Mapping sharing in cities to create 'visual conversations'

As we've already read, sharing in cities takes all sorts of forms, from very global examples, like TaskRabbit or Desks Near Me, to very local examples, like sharing wine glasses between neighbours in the Moseley and Kings Heath ward in Birmingham. Creating a list of all the sharing examples in a city is one way to understand the 'sharing landscape'. Putting the examples on a spatial map can help us go one step further to visibly see where sharing is taking place, what is being shared and by whom, and what people and groups value. In that sense, the spatial maps act as a communication device – much like road maps communicate the way to or from a place – and also allow people to have further conversations about what they see. Being able to discuss what you're seeing is incredibly important, as it means people can ask questions and get into the nitty gritty of sharing examples that may not be easy to describe in words or that may appear complicated. Maps can also assist people to overcome issues of trust between them and other people or groups, support learning about new examples of sharing and show that there might already be examples of sharing in cities that are done by others. In addition, these spatial maps provide a snapshot of a city, giving people the chance to understand what some

of the core issues and values are in relation to sharing and how they are connected. Finally, they can help to reveal where a city is lacking in resources for sharing and how to better promote sharing groups.

The next pages show two maps that a very talented member of the Sharing Cities team, Serena Pollastri, created from the Lancaster and Birmingham workshops, showing what these areas would be like if they were sharing cities (see Figures 4 and 5).

What's great about spatially mapping sharing in cities is not only that it reveals what's happening currently; these maps can also be used to think about the future. One way to do that – and it's what we did with our two workshops in Lancaster and Birmingham – is to first ask local people to populate maps of cities with their current examples of sharing. Then, invite people to consider what would happen if some of these examples were enhanced, like having more chickens whose eggs can be shared with neighbours (what we called 'amplify'); some new things were created to help support the sharing examples, such as new services or spaces (what we called 'create'); and some things could be removed that prevent sharing from happening, like red tape or negative attitudes (what we called 'destroy'). Going through this process of amplifying, creating and destroying means that people can start imagining what their city could be like if sharing was seen as something important to the livelihood of that city. It also means that the people could start talking with one another about what they and others could do to prioritise sharing in their city, and how this differs from what they are currently doing in terms of their lifestyles. Collaboratively using and drawing maps with creative facilitation promotes communication and understanding, and removes real and perceived social and status hierarchies. Furthermore, the maps can be kept (physical and/or digital copies) and used to further the 'visual conversations' around sharing with people who weren't able to attend the mapping sessions. That is, there still are opportunities for others to map their sharing examples.

Figure 4. Map of Lancaster as a sharing city.
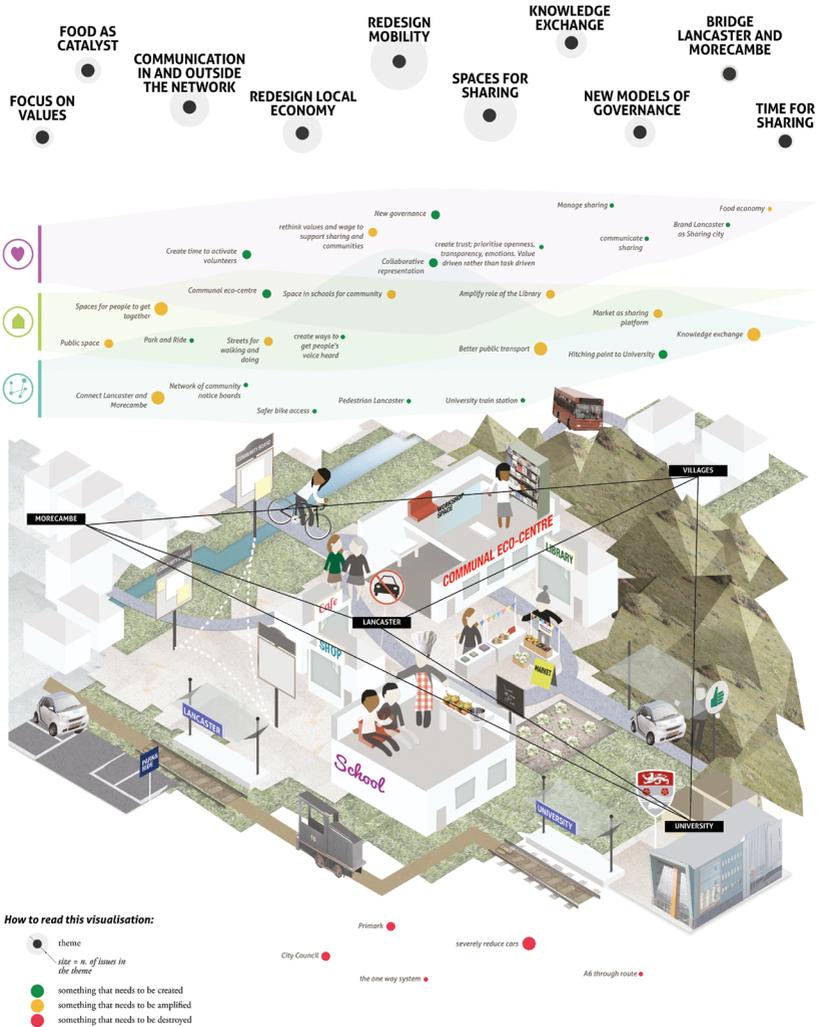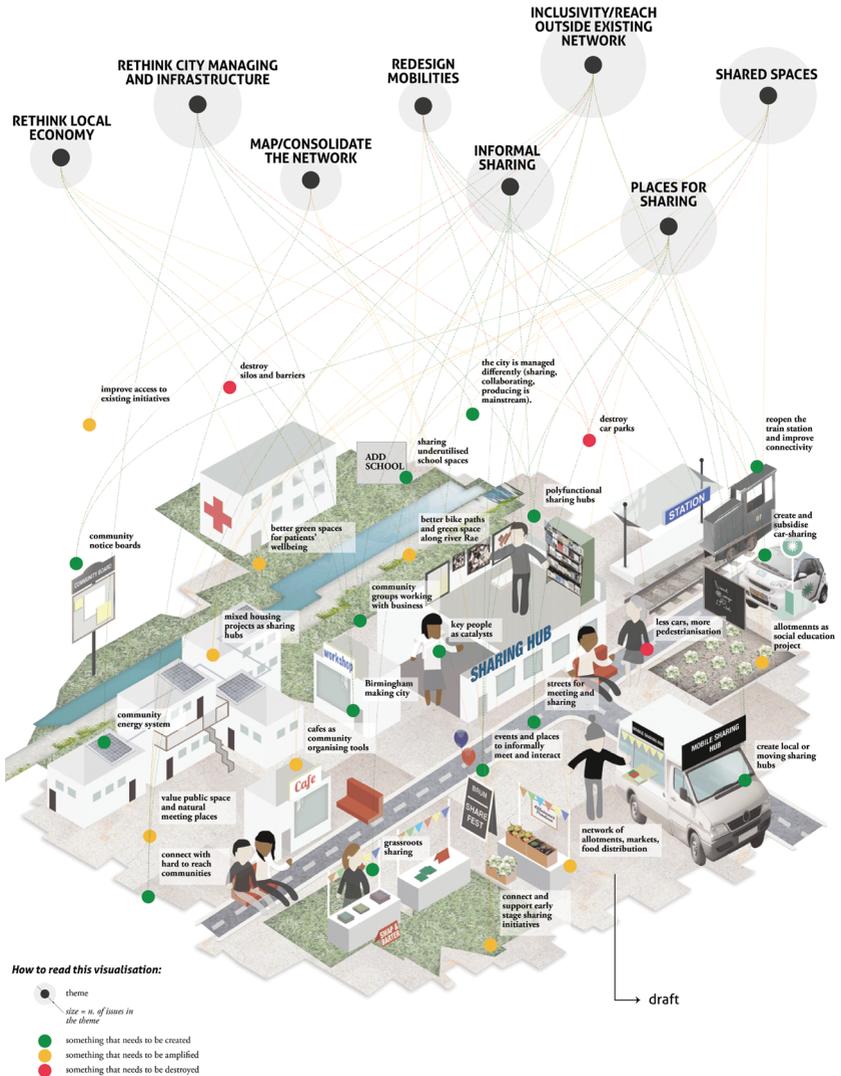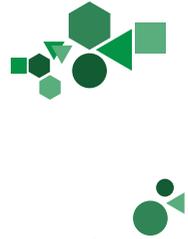

IF
LANCASTER
WAS A
SHARING CITY

Figure 5. Map of the Moseley and Kings Heath ward as a sharing city.

IF
**MOSELEY AND
KINGS HEATH**
WAS A
SHARING CITY

Summary

This little book has shown that sharing is a very important feature of cities and, in fact, integral to how cities work. To define it is not exactly straightforward, and when we explore it in more detail, we find that there are a lot of different ways that sharing occurs. This prompted us to think about how we can categorise sharing to capture all the differences as well as the similarities, so we designed a classification of sharing to help us. In the classification, we ask questions about who shares, what people share, why they share it, how it gets shared, at what scale do people share, what barriers there are to sharing and how these barriers can be overcome.

We show how the classification of sharing in the city works in practice and we provided five interesting examples of sharing. The examples – about food, energy and wellbeing – came from the Liveable Cities research team as well as from workshops with people living in Lancaster and Birmingham. From here, we explored some of the overlapping themes that seemed to be coming from all the sharing examples. These themes, which encompass physical and digital hubs and bridges, and promoting sharing, provide residents, business and city councils with mechanisms to understand sharing in their communities and how to make sharing more universal and beneficial in cities. We then ended by recommending that mapping sharing examples can be an effective way of getting 'visual conversations' going with people in cities and developing the sharing agenda further.

This little book provides an easy-to-understand introduction to sharing in the city. It looks beyond the more conventional notions of the sharing economy and brings in different perspectives from people in academia, government, industry and local communities. Hopefully we will have given you some food for thought. We also hope that this book will inspire you to share more within your cities and tell people about what you're doing. Together, we can start some important 'visual conversations' about sharing that will benefit cities, now and in the future.

Resources

This is a small section containing websites about sharing initiatives and further readings. As with any of these digital resources, they grow and change rapidly, but we thought we'd give you some of the websites and readings we liked.

Sharing initiatives

Urban Harvest Birmingham: http://www.northfieldecocentre.com/urban-harvest/

Incredible Edible Lancaster: http://www.incredible-edible-lancaster.org.uk/

Tri-generation energy initiative in Sydney: http://www.cityofsydney.nsw.gov.au/vision/towards-2030/sustainability/carbon-reduction/trigeneration

Combined Heat and Power: http://www.thamesweygroup.co.uk/our-services/low-carbon-energy/

Smart local grids: http://www.bioregional.com/smart-local-grids/

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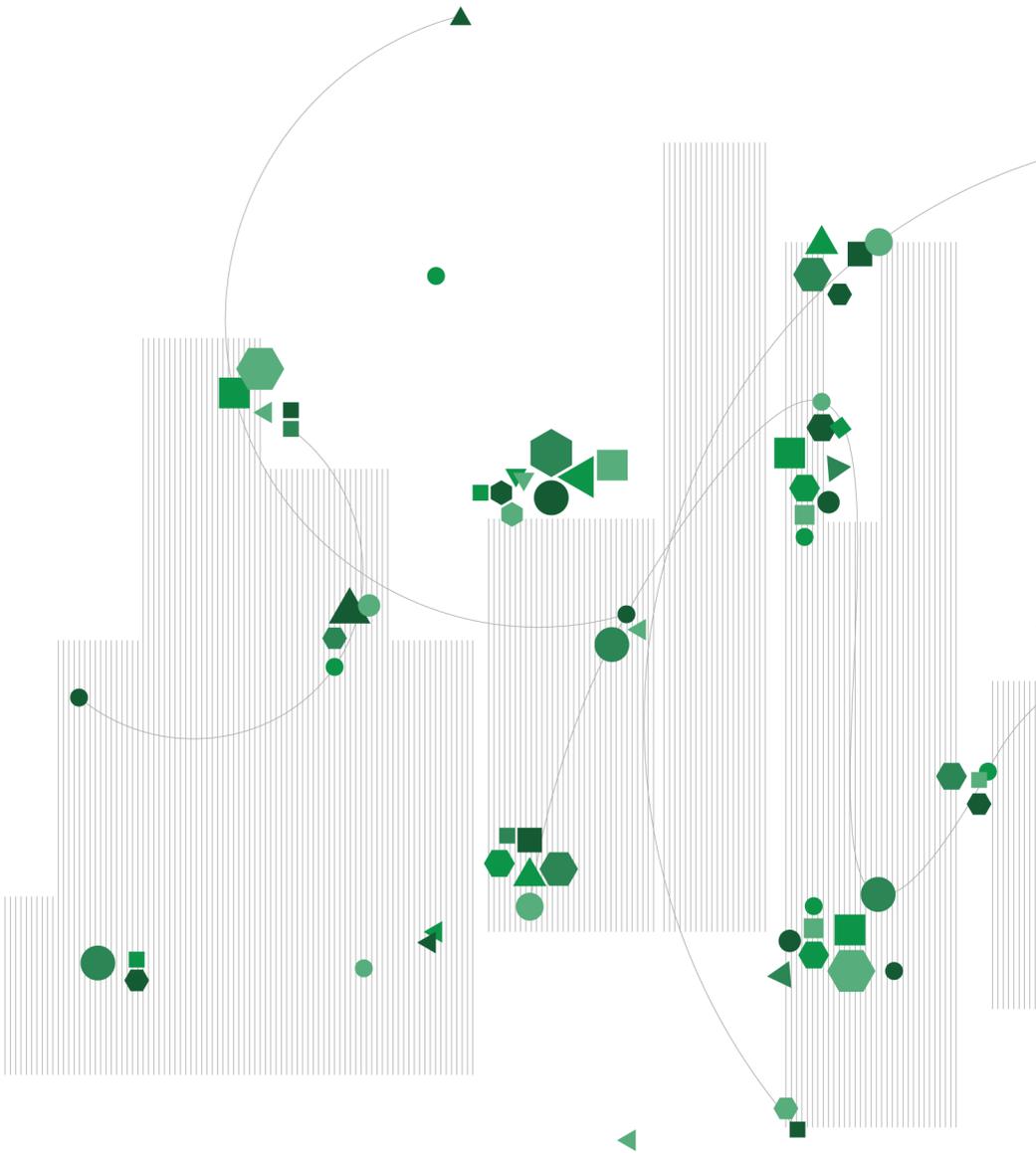
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