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Sharing Platform Workbook

Describing Business Model Choices in the Sharing Economy

by Steven Kane Curtis

THE INTERNATIONAL INSTITUTE FOR INDUSTRIAL ENVIRONMENTAL ECONOMICS AT LUND UNIVERSITY

**SHARING PLATFORM WORKBOOK
DESCRIBING BUSINESS MODEL
CHOICES IN THE SHARING ECONOMY**

INTRODUCTION

Who is this workbook for?

I have the luxury to think about business models in the sharing economy all day! I have studied hundreds of sharing platforms across five global cities: Berlin, London, San Francisco, Amsterdam and Toronto. I want to share with you some of the insights I have gained from my research.

This workbook is intended to support entrepreneurs and existing sharing platforms interested in creating or improving their offering. In this workbook, you will find detailed descriptions of business model choices relevant for sharing platforms. The business model choices reflected in this workbook are a result of my research. Examples are used throughout to bring the choices to life and help you incorporate them into your thinking. It is my hope that this workbook may support reflection, brainstorming, and integration of relevant business model choices for your platform.

While the workbook is intended to describe business model choices that may support more sustainable consumption, the content is applicable widely for any value orientation - commercial or otherwise.

While written for sharing platforms, this workbook is also relevant for policymakers and third-party organisations that have the mandate to regulate or support sharing platforms. Having a broader understanding of the business model choices, especially those that promote more sustainable consumption, may help you in your activities as well.

How to use this workbook?

Arguably, you are the best at what you do. You have the vision and the passion to bring your ideas to life. I want to support you to realise your vision. My sharing platform workbook seeks to inspire reflection, to provide opportunities to brainstorm, and to support you to incorporate ideas that improve your platform.

REFLECT
Use this workbook to reflect on your business model choices and learn from other platforms from around the world.

BRAINSTORM
Respond to prompts throughout the workbook that support brainstorming and workshopping of your ideas.

INCORPORATE
Be bold. Be strategic. Be deliberate. Can any of your reflections be incorporated into your sharing platform to improve your offerings?

AN OVERVIEW OF THE SHARING ECONOMY

The Sharing Economy

Do you ever find yourself describing the sharing economy using examples like Airbnb and Uber? You are not alone! Much of the discourse on the sharing economy has focused on these platforms. But, are they really sharing?

The sharing economy is often used as an umbrella term to describe a wide variety of consumption practices including sharing, renting, borrowing, lending, bartering, swapping, trading, exchanging, gifting, and even buying second-hand. With the term being used ubiquitously across many consumption domains, the sharing economy means everything and nothing, making it difficult to promote, support, or regulate.

How do you describe the sharing economy to your key stakeholders?

Regardless of how you define the sharing economy, it does not have a singular definition. This leads to confusion among entrepreneurs, users, and policymakers. Part of the confusion comes from a variety of terms used to describe similar but different consumption practices...

- SHARING ECONOMY

- COLLABORATIVE CONSUMPTION

- ACCESS-BASED CONSUMPTION

- CIRCULAR ECONOMY

- GIG ECONOMY

- PLATFORM ECONOMY

- DIGITAL ECONOMY

The definitions of these terms are much debated in academia and broadly in society. I do not have the authority to define the sharing economy. Neither do you. But, I suggest there are two key characteristics at the heart of the sharing economy:

1. THE SHARING ECONOMY FACILITATES ACCESS OVER OWNERSHIP.*

Access is widely stated as a key condition of sharing economy business models. This implies there is no transfer of ownership as part of the consumption practice, thereby excluding gifting, second-hand and redistribution markets.

2. THE SHARING ECONOMY LEVERAGES IDLING CAPACITY.

Widely, the sharing economy is said to leverage the idling capacity of under-utilised assets. I suggest this often implies the sharing of an existing stock of goods.

Sharing platforms face an uphill battle to remain economically viable. Customer acceptance is key to any successful platform. When I advise sharing platforms, I always suggest to consider how to design your business model to be as convenient, as cheap, and more fun than existing offerings.

What motivates your users to use your platform? (e.g. convenient, cheap, fun, sustainable, social)

* Goods characterised by one-time use – consumables such as food, personal care products, some art supplies or motor oil, for example – can still be considered part of the sharing economy as their one-time use requires transfer of ownership. It is hard to put a spritz of perfume back into the bottle.

THE SHARING ECONOMY IS <u>NOT</u> SUSTAINABLE BY DEFAULT

Are your users motivated by sustainability?

Do you frame your platform as being more sustainable? Many proponents of the sharing economy claim that it is a more sustainable form of consumption. But, this is not always the case…

Airbnb is blamed for rising housing costs in dense urban centres, gentrification, and other community issues.

Uber is said to increase congestion and air pollution in some city contexts as drivers roam around the city and sit idling while waiting for new fares.

Many platforms may even induce greater consumption as users have access to a greater number of products. Rebound effects and moral licensing are also issues that exist among consumers, but these are often beyond the platform's ability to control.

We are facing a climate crisis and other existential environmental and social challenges including biodiversity loss, habitat destruction, and social and economic inequality. In a 2016 study conducted by the Norwegian University of Science and Technology, household consumption accounted for more than 60% of global greenhouse gas emissions and between 60-80% of the total global environmental impact.

Can the sharing economy seek to reduce our net consumption and facilitate social cohesion?

SHARING ECONOMY BUSINESS MODELS FOR SUSTAINABILITY

Creating Contexts for Sustainability

If the sharing economy is not sustainable by default, we must be deliberate in how we design sharing platforms to ensure more sustainable outcomes. But, sustainability is often complex. And, while you may have good intentions, it is not always the case that your business model will deliver improved sustainability outcomes.

In the absence of data and without needing to contract experts to run a full life-cycle analysis of your platform, it is a lot easier to think about contexts in which your business model is more likely to lead to more sustainable consumption.

Building Blocks of a Sustainable Sharing Economy

ICT- MEDIATED

The sharing economy is mediated by ICT, creating two- or multi-sided markets.

NON - PECUNIARY MOTIVATION FOR OWNERSHIP

The sharing economy leverages the idling capacity of an existing stock of goods.

TEMPORARY ACCESS

The sharing economy is characterised by consumption practices that do not lead to transfer of ownership.

RIVALROUS

When sharing, the use of a shared good prevents the simultaneous use by another.

TANGIBLE GOODS

The sharing economy sees sharing of space, durable goods and nondurable goods.

If we think about creating contexts to improve the sustainability performance of sharing platforms, these building blocks can help to guide you. Each block seeks to maximise the sustainability potential of a sharing platform. Together, they represent a sharing economy for sustainability!

Triadic Business Model

In creating contexts that are more likely to support sustainable consumption, I suggest that sharing platforms shall operate as two-sided markets, often called triadic business models. Businesses that operate triadic models do not own the assets involved in the exchange. Instead, triadic models facilitate access to goods and services between actors in the market. Thus, the traditional understanding of value proposition, value creation and delivery, and value capture does not necessarily apply here in the same way as traditional business models.

The business model choices in this workbook relevant for the sharing economy correspond to the following dimensions:

- VALUE FACILITATION

- VALUE DELIVERY

- VALUE CAPTURE

While I suggest the sharing economy operates as a two-sided market, many of the business model choices described in this workbook are relevant for all platforms.
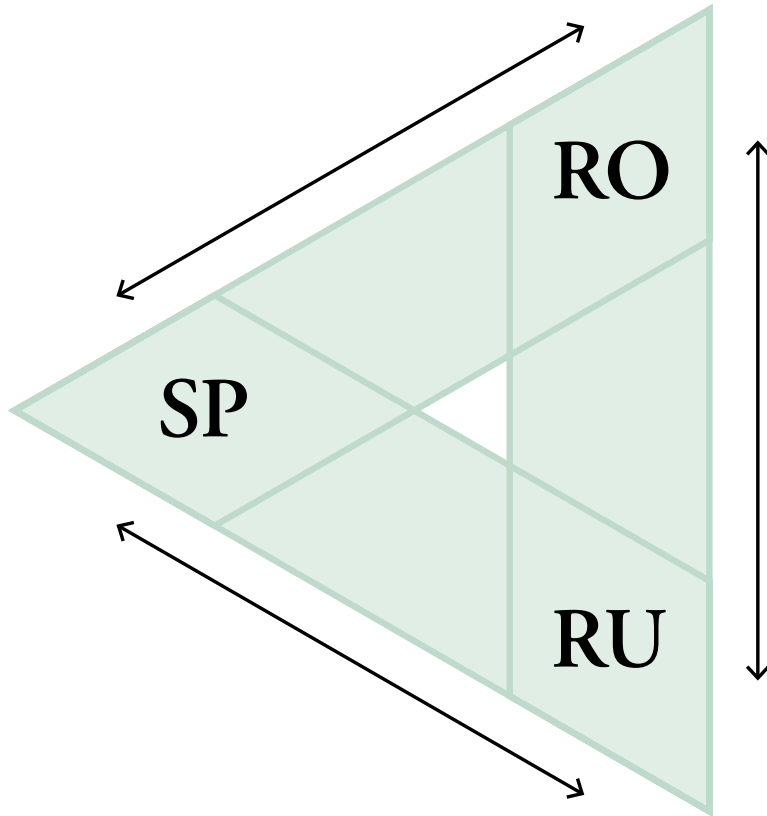
Key Activities

SP
SHARING PLATFORM

Platform mediation allowing for access to under-utilised goods.

RO
RESOURCE OWNER

Provides an asset via a sharing platform to be accessed by a resource user.

RU
RESOURCE USER

Accesses an asset via a sharing platform to be returned to a resource owner.

Business Model Choices in the Sharing Economy

There are so many different choices one must consider when designing a business model. In the sharing economy, this is made more complicated because often there is a supply-side (i.e. resource owner) and a demand-side (i.e. resource user) to a sharing economy business model. So, I have depicted the relevant business model attributes and choices, presented here graphically, each described in greater detail later.

You will notice that the choices can be depicted as more communal-oriented and more commercial-oriented choices on a spectrum. In this way, the tool can be used to map the choices made by a sharing platform to give an indication of its mission or orientation. The greater number of choices on the left of the schema, the more communally oriented the sharing platform; conversely, the greater number of choices on the right of the schema, the more commercially oriented the sharing platform. However, not all attributes correlate with the orientation of the sharing platform and is only indicative.

Attributes	Business Model Choices						

Value Facilitation

Attributes	Business Model Choices						
Key Activity	Platform mediation allowing for access to under-utilised goods						
Platform Type	Peer-to-Peer		Business-to-Business		Business-to-Peer		Crowd
Practice	Shared space		Shared Mobility		Shared Goods	Shared Consumables	Shared Resources
Governance Model	Cooperative			Collaborative		Corporate	
Intellectual Property	Open Source			Communal		Proprietary/Commercial	
Price Discovery	Free	Pay what you can	Negotiation / Bargaining		Auction	Set by Resource User	Set by Resource Owner / Set by Platform

Value Delivery

Attributes	Business Model Choices			
Key Value Proposition	Reduction of transaction costs in sharing with strangers			
Mediating Interface	Smartphone App		Website	3rd-Party App (e.g. Facebook Group)
Venue for Interaction	Offline		Hybrid	Online
Review System	Resource Owner Reviews	Resource User Reviews	Platform Reviews	None
Geographical Scale	Existing Community	Local	Regional	National / International

Value Capture

Attributes	Business Model Choices							
Value Orientation	Social / Public		Social		Environmental		Commercial	
Revenue Streams	Donations	Public or Private Project Funding	Transaction Fee	Commission	Subscription Fee	Membership	Advertisements	Data Mining / Sponsorship
Pricing Mechanisms	Static Pricing		Dynamic Pricing		Differential Pricing			
Price Discrimination	None		Other	Feature-based		Location-based		Quantity-based
Revenue Source	None		Volunteer	Other		Resource Owner	Resource User	3rd-Party

 Community   Commercial

BREAKING DOWN SHARING ECONOMY BUSINESS MODEL CHOICES

Value Facilitation

The sharing economy is a bit different. Value is not just created by a firm through products that are sold to their customers. Instead, users co-create value together with the platform. The resource owner must be willing to provide their resource and the resource user must be willing to access the resource through the platform. That is why we need a new way to describe value creation in a triadic business model... I call this value facilitation.

Value facilitation describes the practices by which the sharing platform mediates the exchange in a two-sided market, including the extent of customer input in shaping the product or service offering. For example, this may be done by providing resources, information, or assistance. The relevant attributes identified in our analysis include:

- KEY ACTIVITY

- PLATFORM TYPE

- PRACTICE

- INTELLECTUAL PROPERTY

- GOVERNANCE MODEL

- PRICE DISCOVERY

Key Activity

The key activity describes the primary action taken by the platform to facilitate value creation among a resource owner and resource user. In the sharing economy generally, platforms are described as 'digital matching' markets, which leverage idle resources to create value by matching a resource owner and resource user. This description is at the heart of what constitutes the key activity of a sharing platform:

Platform mediation allowing for access to under-utilised goods.

In practice, this suggests a platform uses technology to connect a resource owner and resource user who otherwise would not meet. I use technology broadly to describe any messaging app, social media site, website or smartphone app to mediate sharing (see Mediating Interface, Page 32).

This isn't to say that any sharing platform does not engage in a wide variety of specialised activities that create value for their users.

What other activities are central to your platform's operations?

Do the platform's activities support contexts for sustainable consumption?

Platform Type

The 'platform type' describes the users involved in sharing on the platform. These platform types engage users along these constellations: **peer-to-peer (P2P), business-to-peer (B2P), business-to-business (B2B), and crowd or cooperative models.**

In the **P2P model,** sharing takes place between peers, often having equal standing based on, for example, rank, class, or age.

Similarly, the **B2B model** sees mediation taking place between business or organisational entities, often sharing idling resources particular to their business sector (e.g. construction or medical equipment).

However, sometimes there are idling resources owned by a business that may be used by individuals. I suggest this is an example of **B2P platform** types (e.g. Spacious or Bagbnb).

Finally, the **crowd model** describes mediation from one to many, from many to one or from many to many. This model is inclusive of cooperatives or crowdsourcing models (e.g. car cooperatives, renewable energy cooperatives, or crowdsourcing of classroom supplies or costumes for a theatre production).

In all cases, the platform mediates sharing between two or more actors, generally a resource owner and a resource user. But, what is excluded?

I suggest that business-to-consumer (B2C) models are excluded from the sharing economy. These models do not operate as two-sided markets. Instead, the ownership of the resource rests with the platform. Often, this suggests that the resources were purchased for the purpose of sharing, creating an artificial idling capacity.

Of course, access-based consumption may contribute to more sustainable consumption. But, this is not always the case and business models that facilitate access must be carefully designed in order to actually lead to more sustainable outcomes.

Consider bikesharing and e-scooter sharing platforms. These platforms compete on the basis of access and convenience. As such, there is incentive to saturate the market, creating an overcapacity of under-utilised assets.

Grey Area

Context will always play an important part in determining which platform type your platform may be operating and it is not always black and white, especially if seeking to prioritise more sustainable outcomes.

For example, consider Toronto Tool Library in contrast to the Home Depot's tool rental programme. In both instances, the ownership of the tools rests with the platform. However, all of the tools at the Toronto Tool Library were provided by donation, often lightly used. The Home Depot, in contrast, uses new tools from brands in its inventory. The motivations of the platforms are vastly different.

Does the Toronto Tool Library operate as a crowd model or a B2C model?

Do either belong to the sharing economy?
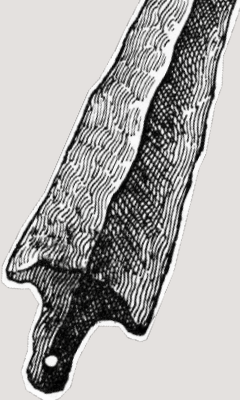
Practice

You may describe a business model in the sharing economy as belonging to a single sector. For example, Airbnb is often said to belong to the hospitality or accommodation sector. But, does every practice mediated by Airbnb make sense to be described as belonging to the accommodation sector? This is particularly true as platforms continue to diversify, with Airbnb now offering experiences. And, what about platforms like Rover Parking or Roost. Similar to Airbnb, their business models provide access to idling or vacant space. But, these platforms do not belong to the hospitality or accommodation sector.

Instead, I suggest that the sharing economy transcends traditional industrial sectors (e.g. hospitality, accommodation, mobility). Instead of a sectoral perspective, I propose to describe sharing as a practice, i.e. **shared space, shared mobility, shared goods, shared consumables, and shared resources.**

Shared space describes, for example, idling rooms, apartments, attic storage space and parking spots.

Shared mobility includes carsharing, bikesharing, ridesharing, boatsharing and e-scooters, in so far as these practices are mediated between two actors across the platform.

Shared goods describes both durable goods and non-durable goods such as clothes, furniture, sporting goods, home improvement products, luggage, consumer electronics and other homeware.

In contrast, **shared consumables** describes goods characterised through one-time use such as food or personal care products (e.g. perfume, haircare products, fingernail polish), among others, which cannot be shared again after use.

Finally, there is a growing body of literature describing the **sharing of energy and resources** more generally, such as excess heat, water and other effluent from urban and industrial processes.

Which one (or more) practices does your platform facilitate?

Intellectual Property

Operating as a two-sided market, sharing platforms do not own any of the idling assets being shared between a resource owner and resource user. Instead, the key resources of the platform rest in intellectual property – such as the digital platform, matching algorithm, booking management or review system – as well as other data generated on the platform.

Platforms in the sharing economy have vastly different views as to what extent intellectual property and other data should be protected or shared. Many of the larger companies, commercially oriented and facing competition, may protect **proprietary** technology and content (e.g. Airbnb, Uber, Udemy). There is also **communal** intellectual property protection, in which intellectual property is only available to those using the platform. Finally, there are platforms that make any intellectual property **open source** to support and encourage others to operate similar platforms (e.g. BikeSurf).

The commercial orientation of the platform may indicate the extent to which intellectual property is protected. While there may be a commercial interest in protecting intellectual property from competition, transparency and communal forms of consumption tend to facilitate trust, solidarity and social bonding.

What intellectual property or data do you use?

Do you want to share or license IP or data? Why or why not?

Governance Model

The platform's governance model describes the approach of the platform in decision-making as well as risk and reward sharing. I suggest three broad approaches in governing sharing platforms: **corporate, collaborative and cooperative.**

Corporate governance mirrors existing management practices primarily driven by profit-seeking behaviour. Decision-making rests with the platform, responding to market pressures, with limited input from users. This governance model is more likely to be associated with more formal technology, proprietary in nature, and more commercial value orientation.

Collaborative governance sees more involvement of users in the decision-making process. While commercial orientation is likely, other value orientations may prevail as well as increased transparency regarding intellectual property rights and pricing mechanisms, among other business model attributes.

Cooperative governance sees users involved in, or even leading, the decision-making process. This governance model describes what are often called platform cooperatives, which are democratic, tech- and mission-driven platforms facilitating sharing and other collaborative forms of consumption.

How are users engaged in the governance of your platform currently? How do you wish them to be engaged in your platform in the future?

Price Discovery

Price discovery describes the mechanism by which the prices for goods and services are determined in a market. While it is often the platform that determines the appropriate mechanism for pricing, the price may be ultimately set by the resource owner or resource user. I identify the following price discovery mechanisms: **set by the platform, set by resource owner, set by resource user, negotiation, auction, pay what you can, or free.**

   The **platform may set the price** for goods shared on its platform (e.g. an electric mixer will always cost 4/hr, with the resource owner receiving 75% of the transaction fee paid by the resource user). The **resource owner may set the price,** of which the platform may take a percentage or charge/embed a transaction fee in the price to the resource user. The **resource user may set the price,** for example, by placing an advertisement saying they are willing to pay a certain amount for shared access to a good. Moreover, the price may be set through **negotiation** between the resource owner and resource user, which may or may not include the platform in this negotiation. While less likely, one could imagine an **auction** system to set the price for goods in high demand. Other mechanisms for price discovery may include

'pay what you can' or the good may be completely **free of charge.** In these instances, there are likely other revenue streams (see Revenue Streams, Page 41).

Value Delivery

Value delivery describes the way in which the platform delivers value or acts out its contribution of the value proposition for the resource owner and resource user. The relevant dimensions elevated in this workbook include:

- VALUE PROPOSITION

- MEDIATING INTERFACE

- VENUE FOR INTERACTION

- REVIEW SYSTEM

- GEOGRAPHICAL SCALE

Value Proposition

In contrast to traditional business models, sharing platforms co-create value with their users. Often, users must also carry out a key activity in order to create value. A resource owner must be willing to share a good and a resource user must be willing to access a good in order to create value on the platform.

Therefore, the value proposition of the platform is related to your key activity. If the key activity of the sharing platform is matchmaking, then I suggest that **the primary value proposition of the platform is the reduction of transaction costs associated with sharing among strangers.** This is the value that is being delivered to your users as a result of mediating and matchmaking.

The value that your platform delivers may be different from the customer value proposition. In other words, the customer value proposition describes the value, or need, the customer fulfils from using the platform.

The customer value proposition likely differs between the supply-side and demand-side of your platform (i.e. between the resource owner and resource user).

What do you think is the customer value proposition for resource owners?

What do you think is the customer value proposition for resource users?

Mediating Interface

While platforms use a suite of technologies to facilitate sharing, I suggest the mediating interface describes the user-facing technological platform that users engage with to facilitate matchmaking. The mediating interface falls into three broad categories: **smartphone app, website, or third-party applications.** Platforms may use any and all of these interfaces to engage their users.

More formal, often commercially-oriented, sharing platforms may leverage a **smartphone app and/or website** with technology that is developed 'in-house' or contracted from another vendor, which is integrated into their branded app or website. Less formal sharing platforms, which include non-traditional organisations and grassroots initiatives, may rely on existing **third-party applications** to mediate sharing, e.g. Facebook groups, WhatsApp or Slack.

What mediating interface (or other technologies) do you rely on to fulfil your key activities?

Venue for Interaction

The venue for interaction describes how users communicate and where they meet, if at all. I describe three business model choices describing the venue of interaction: **online, offline, or a hybrid of the two.**

For example, the sharing platform Cycle.land – a peer-to-peer bikesharing platform in Oxford, United Kingdom – mediates bikesharing among a community of sharers and riders. Many sharers use combination locks allowing riders to access the bike without ever meeting in person. This is an example of **online interaction.** However, other sharers meet riders in person after communicating online in order to suggest tips for biking in and around Oxford; this may be described as a **hybrid interaction,** where the sharing platform mediates interaction online and the resource owner and resource user interact in person during the exchange of the shared asset.

In contrast, an example of **offline interaction** may be a MeetUp for a neighbourhood sharing event, where a grassroots initiative leverages social media to create an offline venue to mediate sharing and where interaction takes place offline.

How do your users interact? How do you wish they would interact?
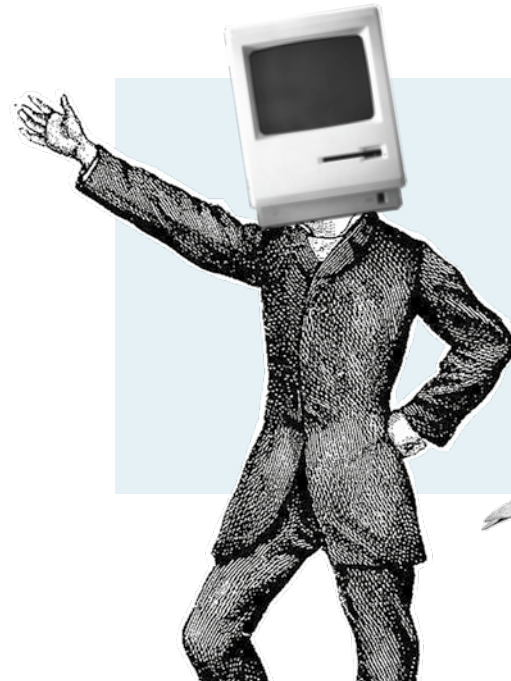
Review System

A review system or rating system is said to increase trust among resource owners and resource users by seeking to reduce information imbalances. A review system can be designed to facilitate reviews for **the resource owner, the resource user and/or the platform.**

It is said that under-performing users can be flagged by others and weeded out over time as well as singled out by the platform and dealt with according to the platform codes of conduct. The same can be said about reviews left for platforms, which users may use to determine whether to use the platform in the first place.

While an important trust-building feature, there is increasing criticism about the homogeneity of positive reviews left among users. More needs to be done by platforms to ensure that the reviews left are meaningful in that they reflect the experience as well as the quality of the goods shared. This is especially true when reviews can be used by platforms in differentiating platform features or prices among users (see Price Discrimination, Page 43).

Insurance

The insurance industry is now just beginning to develop products that extend to sharing platforms. There are only a handful of examples that I know of dispersed around the world where platforms have contracted with an insurance provider to insure damage to shared property. This is often for high-valued items such as cars.

Platforms that facilitate sharing of household goods, such as Peerby, often do not have insurance.

Is insurance necessary to facilitate trust between your users and the platform?

If not insurance, does some other mechanism protect the platform or resource owner against damages?

Is there a need?

Geographical Scale

The geographical scale describes the proximity between the resource owner and resource user. I suggest that this scale has direct implications on the value delivery to the resource owners and resource users as the availability of goods and facilitation of sharing will look differently depending on this scale. To be clear, this is different from the scale of operation of the platform; platforms may facilitate sharing between a resource owner and resource user locally, while the platform may operate in many locations internationally.

I describe the geographical scale to include an existing **community or neighbourhood** in addition to operations at a **local, regional, national, or international scale.** Sharing platforms may be leveraged by or introduced to existing communities. For example, a neighbourhood may begin using a sharing platform to access goods among their neighbours (e.g. Nebenan). Alternatively, a local sports club may use a Facebook group to share sports equipment among each other. For platforms more interested in social and environmental value, designing the platform for or within an existing community is more likely to lead to success. Beyond this, resource owners and resource users may be dispersed throughout a city, region, nation, or beyond.

UberPool facilitates ridesharing within a city, and BlaBlaCar similarly facilitates ridesharing across regions, a nation, or internationally. Lastly, Airbnb facilitates sharing around the world where resource owners and resource users are dispersed internationally.
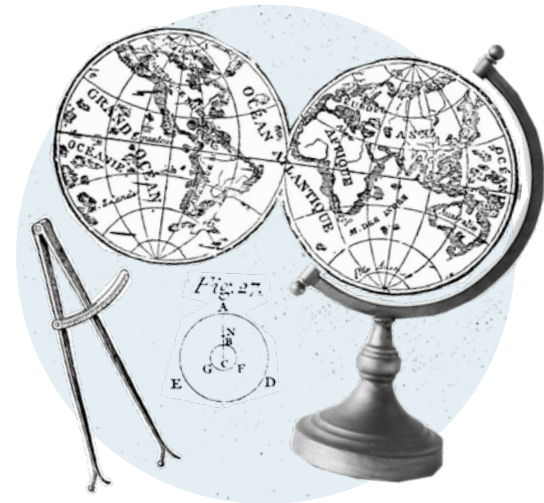
Value Capture

Value capture typically describes the mechanisms for capturing economic value for a business and its shareholders. However, in describing sharing platforms, I also seek to elaborate on other types of value orientation in addition to traditional dimensions such as revenue streams, pricing mechanisms, pricing discrimination and revenue sources.

- VALUE ORIENTATION

- REVENUE STREAMS

- PRICING MECHANISMS

- PRICE DISCRIMINATION

- REVENUE SOURCE

Value Orientation

Your sharing platform may wish to operate as a for-profit or not-for-profit venture. However, value orientation seeks to further elaborate the underlying motivation of the platform. This means whether your platform seeks to create value beyond simply economic or shareholder value. I articulate the following value orientations: **commercial, social, environmental, and societal.**

Commercial orientation sees economic value captured by the platform as the primary motivation for existence. In contrast, the other orientations are more mission-driven and consistent with sustainable business model literature. **Social orientation** describes those social enterprises largely motivated by the social cohesion and social bonding that may take place between those that share. **Environmental orientation** prioritises environmental sustainability and sustainable consumption practices. Finally, **societal orientation** describes those platforms motivated by more normative beliefs of how things should be, potentially returning to simpler and more meaningful exchanges.

Now, I want you to be able to articulate all of the value that your platform creates, delivers, and captures. In being explicit for yourself, this helps to be more strategic in your communication to users and other stakeholders, for example, to legitimise your platform and seek capital.

What value orientations does your platform prioritise?

Do you currently articulate this value to customers? To stakeholders? If so, through what channels?
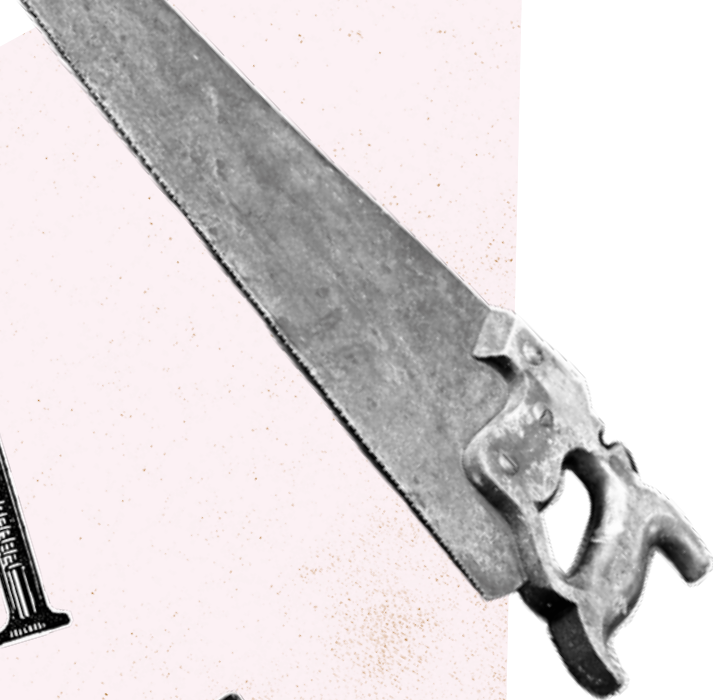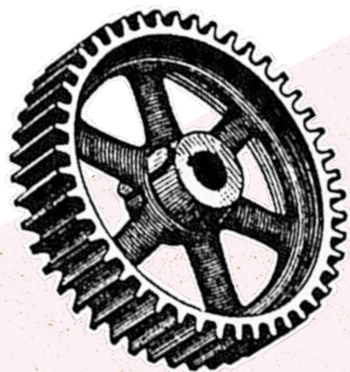
Revenue Streams

Revenue streams describe economic value captured by the sharing platform. Revenue streams are described as bounded or unbounded to the sharing exchange, or transaction. Streams of revenue that are bounded to utility would include **one-time transaction fees or commission-based fees** associated with the economic utility of the sharing exchange. These tend to be the most common revenue streams in commercial sharing platforms. Streams of revenue that are unbounded to utility are, for example, **subscription, membership, advertisements, data mining, sponsorship, donations and public and private funding.**

What are your current revenue streams? Is this sufficient to remain economically viable?

Why or why not?

At present, this attribute only describes revenue streams relevant for capturing economic value. We must legitimise other forms of value capture to include social, environmental and societal value.

Pricing Mechanism

Pricing mechanisms describe the influence of demand of a shared good and a resulting change in its price. We suggest three pricing mechanisms relevant for sharing platforms: **static pricing, dynamic pricing, and differential pricing.**

    Static pricing describes the process of a platform setting a fixed price based on market conditions, where the price changes infrequently and in a stepwise manner. **Dynamic pricing** considers real-time data on supply and demand to adjust the price (ex. surge pricing). Finally, **differential pricing** describes the process of offering the same product to customers for different prices. In applying this thinking to the sharing economy, platforms may determine pricing based on user characteristics (e.g. age, income, location), actions (e.g. membership, friend referral, share on social media), or behaviour (e.g. number of shared goods on the platform, positive ratings or reviews).
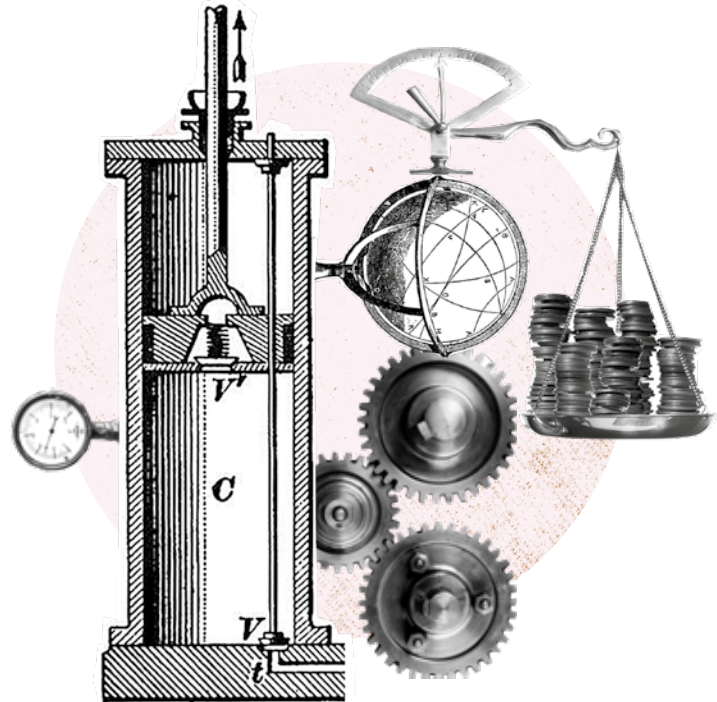
Price Discrimination

In contrast to the pricing mechanism of differential pricing, which describes the changes in price based on the attributes of the user, price discrimination describes differences in prices based on the product and market.

Price discrimination may be based on **features, location, and quantity** of shared goods. **Feature-based discrimination** describes price differences due to features of the platform or features of the product. Some users may pay to access certain aspects of the platform (e.g. user forum or specialised training relevant to the platform). Furthermore, some users may pay to access products with better features (e.g. professional version).

Location-based discrimination describes price differences due to the location of the product or market. The product may be geographically distant, which may increase the price. Moreover, features of the market location (e.g. San Francisco) may demand higher prices.

Finally, **quantity-based discrimination** may describe pricing differences based on the number of transactions a resource owner has on a platform or the number of items a resource user is accessing at any given time.

Revenue Source

The revenue stream in and of itself does not describe the source of the revenue, but simply the mechanism in which monetary revenue is generated by the platform. Therefore, I also seek to elaborate on the underlying source of the revenue. This attribute describes the actor from which the financial flow originates: **resource owner, resource user, third-party, or volunteer.**

Each of the revenue streams may be tied back to either the resource owner or resource user. Third-party actors describes advertisers, buyers of data, sponsors, or funding bodies. Finally, we see volunteers giving their time and effort as a source of non-monetary revenue.

Incorporate

Now that I have reviewed all of the possible business model choices in the sharing economy, I invite you to reflect on your own choices. By being explicit, one can think deliberately and strategically in how to continue to enhance your offering. In addition, it is my hope that this reflection will support your ability to communicate your platform in order to legitimise your work among users, potential funders/financiers, and regulators. Ultimately, I want your platform to create all of the value and ensure your continued financial viability.

About the Author

Steven Kane Curtis is a PhD Researcher at the International Institute for Industrial Environmental Economics (IIIEE) at Lund University. His research focuses on business models in the sharing economy that promote more sustainable consumption.

Steven is also the co-host of the podcast 'Advancing Sustainable Solutions'. The podcast seeks to relate the sustainability research conducted at the IIIEE to an everyday audience. You can access the podcast on any of your favourite podcast platforms or at the website:
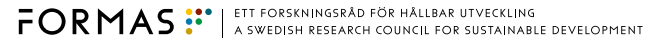
www.iiiee.lu.se/podcast.

Funding & Support

We must be deliberate in how we design sharing platforms in order to ensure financial viability and improved sustainability performance. That is why I created the 'Sharing Platform Workbook': to support entrepreneurs and existing sharing platforms to improve their offerings. The workbook invites you to reflect upon, brainstorm, and incorporate business model choices to support a sharing economy for sustainability. It is my hope that this reflection will support your ability to communicate about your platform to users, potential funders/financiers, and regulators.

Not a sharing platform? Whether you are a policymaker, researcher, or interested citizen, this 'Workbook' shares business model choices in the sharing economy that support more sustainable consumption, something of interest to many. I hope this workbook inspires critical reflection on how we design sharing economy business models and discuss about their potential in society to contribute to improved sustainability outcomes.

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