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# Digital Disruption beyond Uber and Airbnb—Tracking the long tail of the sharing economy

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## ABSTRACT

The sharing economy can be regarded as a discontinuous innovation that creates increased abundance throughout society. Extant literature on the sharing economy has been predominantly concerned with Uber and Airbnb. As little is known about where the sharing economy is gaining momentum beyond transportation and accommodation, the purpose of this paper is to map in what sectors of the economy it is perceived to gain traction. Drawing on data from social and traditional media in Sweden, we identify a long tail of 17 sectors and 47 subsectors in which a total of 165 unique sharing-economy actors operate, including sectors such as on-demand services, fashion and clothing, and food delivery. Our findings therefore point at the expanding scope of the sharing economy and relatedly, we derive a set of implications for firms.

## 1. Introduction

While conventional economics takes scarcity as one of its core assumptions when theorizing about markets, Western economies have in recent decades increasingly moved into a scenario characterized more by abundance. Discontinuous shifts in technologies, most notably the emergence of widespread Information and Communication Technologies (ICTs) in the form of internet connectivity and access to cheap computing power, have paved the way for new business models (Björkdahl, 2009) and competitive turbulence (Sandström, 2011, 2013) where resources are no longer scarce but instead subject to abundance, declining marginal costs (Rifkin, 2014), and increasing returns instead of diminishing returns and rising marginal costs (Arthur, 1996). The partial upheaval of conventional laws of scarcity has, among other things, given rise to a long tail of consumer needs and an increasingly heterogeneous marketplace (Anderson, 2007).

The sharing economy, defined as “ICT-enabled platforms for exchanges of goods and services drawing on non-market logics such as sharing, lending, gifting and swapping as well as market logics such as renting and selling” (Laurell and Sandström, 2017, p. 63) constitutes an interesting contemporary example of a discontinuous innovation which has created increased abundance. Here, a discontinuous innovation can be regarded as an innovative shift that generates a substitute offer in a

particular industry (Hamilton and Singh, 1992).

The sharing economy generates abundance by enabling access to underutilized assets and by lowering transaction costs, thus facilitating exchanges via a platform logic which in turn enables unprecedented scalability (Acquier et al., 2017). Recent contributions have highlighted that the sharing economy may be disruptive both institutionally and technologically (Laurell and Sandström, 2016; Mair and Reischauer, 2017) and described the phenomenon as currently in a state of conflict and tension (Thornton et al., 2012), particularly between market and non-market logics (Laurell and Sandström, 2017). While dominant firms in the sharing economy such as Uber and Airbnb have received a lot of attention in both public discourse and extant literature about the sharing economy (e.g., Cannon and Summers, 2014; Guttentag, 2015; Laurell and Sandström, 2016, 2018; Wallsten, 2015; Zervas et al., 2014), little is known about other sectors of society in which the sharing economy is perceived to be gaining momentum as well.

The purpose of this paper is therefore to map in what sectors of the economy in which the sharing economy is currently perceived to be gaining traction, while also discussing the associated consequences with regard to increased abundance. We do so by systematically assessing ways in which actors in traditional media, as well as users in social media, perceive that the sharing economy is diffusing into different sectors. Drawing upon approximately 400 articles in traditional

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media and 5000 entries in social media concerning the sharing economy in Sweden over a 12-month period, our findings reveal those sectors in which the sharing economy is currently gaining traction while also illustrating the distribution of actors in those sectors.

The remainder of the paper is organized as follows. The next section delves deeper into literature on the sharing economy and relates it to discontinuous innovation and abundance. Next, our method and data sets are presented in further detail, followed by our results and analysis. Finally, a concluding remark is provided together with limitations and directions for future research.

## 2. Elements of the topic

Scholarship in economics and management largely rests on the assumption of scarcity, meaning there is a finite amount of resources, which in turn gives rise to opportunity costs and a need for rational allocation of resources (Marshall, 1927). Scarcity also implies that any resource or business will sooner or later be subject to diminishing returns, i.e., rising marginal costs as increased usage of a resource makes it more scarce.

The assumption of scarcity still applies in several traditional industries based on physical goods, but the advent of ICTs has sparked a potential reversal of this underlying assumption. In several settings, scarcity is no longer a valid assumption. Affluence and abundance characterize the digital economy as it is subject to increasing returns rather than diminishing returns (Arthur, 1996). There are several sources of increasing returns in the information-based economy, including reuse of knowledge and network effects. Reuse of knowledge refers to the fact that knowledge, either codified or uncoded, once developed or acquired can be reused infinitely at very little cost (Granstrand, 1999). Put differently, once a software has been developed it can be reproduced in an infinite volume at very low cost, resulting in substantial economies of scale. Second, network effects imply that the value of an additional unit increases as more users are connected to a certain platform (Arthur, 1996). As a consequence, business transactions conducted over the internet offer high reach and richness of information in comparison to physical markets (Evans and Wurster, 1999).

The introduction of ICTs in traditional industries is therefore likely to have profound consequences as laws of scarcity are overthrown and replaced by abundance and increasing returns. In recent years, not only information-based sectors have been subject to such transitions toward abundance, but also markets for physical goods and services, making markets increasingly fragmented and heterogeneous (Anderson, 2007). The sharing economy (as defined above) initially concerned digital content (Belk, 2014), crowdfunding, and, increasingly, physical goods and services (Kempf, 2013). Other popular terms to describe this topic include “collaborative economy,” “gig economy,” and “platform economy” (Mair and Reischauer, 2017). Here, two-sided platforms of consumers and producers grow rapidly and these services have been predicted to create a market of more than USD 335bn in revenue by 2025 (PwC, 2014).

While this phenomenon is still relatively novel and currently gaining momentum, some early empirical and theoretical contributions have already been made. Extant literature on the subject has shown that sharing-economy platforms such as Uber in the personal transportation sector and Airbnb in the accommodation sector have invoked processes of creative destruction (Matzler et al., 2015) while also potentially transforming the labor market (Friedman, 2014; Sundararajan, 2016). In this sense, it seems clear that the sharing economy can indeed be regarded as a discontinuous innovation as it has punctuated an established equilibrium and instilled a process of creative destruction. Previous research has also shown that these initiatives are not only perceived to be technologically disruptive, but also generate conflicts regarding the institutional set-up (Laurell and Sandström, 2016).

Recently published contributions in *Technological Forecasting and*

*Social Change* have shown that the sharing economy is currently riddled with paradoxes, conflicts, and tensions. One well-documented conflict concerns the fact that both market and non-market logics are currently present, though the more commercial logic seems to be gaining the upper hand (Hamari et al., 2016; Laurell and Sandström, 2017; Murillo et al., 2017) through a process of contestation (Acquier et al., 2017). While firms such as Uber and Airbnb have received a lot of attention in both social media and traditional media (Laurell and Sandström, 2018), the phenomenon seems to have expanded and now encompasses an increasing array of sectors in society, which may potentially share similar experiences of creative destruction as the ones invoked by Uber and Airbnb. Indeed, the *Wall Street Journal* (2015) stated that “There’s an Uber for Everything Now.” Up until now, however, extensive attention has been devoted to Uber and Airbnb (e.g., Cannon and Summers, 2014; Guttentag, 2015; Laurell and Sandström, 2016, 2018; Wallsten, 2015; Zervas et al., 2014), without systematically assessing in what other sectors of society the sharing economy may also be gaining momentum. Given that research into the sharing economy is still in its infancy (Cheng, 2016; Dreyer et al., 2017; Richter et al., 2017), open-ended empirical explorations are arguably useful at this point, especially as more knowledge is needed concerning how the sharing economy is related to more traditional sectors of the economy (Acquier et al., 2017) and the associated consequences concerning increased abundance. In this paper, we therefore set out to address the following research question:

*In what sectors of the economy does the sharing economy currently generate attention?*

By doing so, we add another piece to the puzzle on the associated consequences of increased abundance for the contemporary ways in which sectors of the economy evolve. More specifically, this study expands extant literature at the forefront of research on the sharing economy by going beyond institutional change (e.g., Laurell and Sandström, 2016; Mair and Reischauer, 2017; Malhotra and Van Alstyne, 2014; Murillo et al., 2017), practices and associated actors of the sharing economy (Laurell and Sandström, 2017; Möhlmann, 2015), driving factors (Hamari et al., 2016; Richter et al., 2017), and paradoxes of the sharing economy (Acquier et al., 2017), as well as comparing media content regarding specific sharing-economy actors (Laurell and Sandström, 2018). Moreover, we contribute by analyzing data at the sectoral level in order to map and assess other sectors of the economy in which the sharing economy is currently attracting attention.

## 3. Method

To explore in what sectors the sharing economy currently generates attention, an empirical context in which discussions regarding discontinuous innovations are frequent was needed. One such setting was found in Sweden which is characterized by high levels of internet penetration and sophisticated use of digital technologies (e.g., Davidsson and Findahl, 2016), enabling a vibrant start-up scene to become established in the capital, Stockholm, with several digital successes such as Spotify, Klarna, and iZettle (Davidson, 2015). In addition to being ranked second only to Silicon Valley in terms of hosting billion-dollar start-ups (Temperton, 2017), Stockholm has evolved into the epicenter of the Swedish sharing economy. In terms of the Swedish sharing economy’s development, Felländer et al. (2015) showed that global sharing-economy actors such as Airbnb and Uber became dominant actors in Sweden early on. Due to these actors’ early dominance, and combined with the presence of an active start-up scene, local actors have devoted considerable attention to developing novel sharing-economy platforms with global ambitions that use Sweden as a test market for evaluating the potential to scale worldwide. Taken together, the contemporary sharing economy in Sweden is therefore characterized by a multitude of sharing-economy platforms even though their orientations differ (Laurell and Sandström, 2017). Bearing these

characteristics in mind, Sweden was chosen as the empirical setting for the study at hand.

### 3.1. Data collection

The Swedish media landscape was utilized to collect data on how actors in traditional media and users of social media perceive and associate the sharing-economy phenomena with specific sectors of the economy. There are two main reasons for drawing upon the broader Swedish media landscape. First, the Swedish media landscape has become increasingly hybridized as the boundaries previously separating different media have become more blurred (Strömbäck, 2015). Second, extant literature on ways in which traditional and social media differ with regard to how actors and users attribute meaning and value to dominant sharing-economy platforms Uber and Airbnb (Laurell and Sandström, 2018) indicates that these two categories of media exhibit differences in scope and scale. The methodological approach in the present study is therefore to combine traditional and social media outlets in an attempt to systematically assess the aggregated perceptions at a sectoral level with regard to how the sharing economy is currently perceived throughout different sectors of the economy.

To do this, we combined an emerging methodological approach called Social Media Analytics (SMA) where content is gathered and analyzed using software and coding techniques with content analysis methods developed for traditional media. Taken together, these two approaches enable a structured way to collect and analyze large amounts of data drawn from the media landscape while also handling the respective orientations and characteristics associated with the scope and scale of published content in social and traditional media (Laurell and Sandström, 2018).

Drawing from the domain of big data analytics, SMA is an interdisciplinary approach that combines, extends, and adapts methods for analysis of social media data (Stieglitz et al., 2014; cf. Jung et al., 2017; Brem and Bilgram, 2015) that has been introduced as a methodological alternative relatively recently (cf. Chen et al., 2012; Gandomi and Haider, 2015). SMA has already been applied in several research disciplines, and innovation research is one domain in which the application of SMA shows great potential (e.g., Akter et al., 2016; Brandt et al., 2017; Laurell and Sandström, 2016, 2017, 2018; Obschonka et al., 2017).

When collecting social media data, the social media landscape's fragmented character and the lack of standardized access to user-generated content across social media platforms represent principal challenges. More specifically, application programming interfaces (APIs) as means for collecting data are associated with several issues, especially for multi-platform approaches, as social media platforms' respective APIs are subject to different data access restrictions (e.g., Stieglitz et al., 2014). Due to the increased demand for social media data in both research and practice, a sector of services offering access across platforms in a structured manner has emerged that manages changes in data access across platforms. In the present study, one of these services, called Notified, was used to collect social media content. By using services like Notified, the researcher gains direct data access to a range of social media platforms while also being able to delimit data by geographical area. However, one drawback of accessing data through APIs is that data access restrictions can change during the process of collection and, therefore, the researcher must ensure that the same procedure is utilized throughout the collection process.

For the purpose of collecting data on the sharing economy in social media, a data set was collected covering all publicly posted user-generated content published on the social media outlets of Twitter, Instagram, Facebook, blogs, and forums that included the keyword "Delningsekonomi" (Swedish for "The sharing economy") between April 1, 2016 and March 31, 2017. This generated a data set comprising of 5185 posts covering a time period of one year. The data set only contains user-generated content written in Swedish or user-generated

content posted by Swedish users among text-based social media applications. This delimitation enabled a structured approach vis-à-vis the empirical setting chosen, and the utilization of text-based social media applications also allowed for comparability vis-à-vis data collected from traditional media.

Following the collection of social media data, an equivalent data set of press articles published in traditional media including the keyword "Delningsekonomi" was collected by using a database called Retriever. This database is the most comprehensive in Sweden and stores text-based material published in traditional media, i.e., press articles from Swedish daily newspapers, provincial newspapers, magazines, journals, and periodicals. Following the same approach as when collecting social media data in terms of keyword and time period, a database search between April 1, 2016 and March 31, 2017 was carried out, generating a data set amounting to 411 press articles.

### 3.2. Data analysis

Following the completion of data collection, content analysis (Silverman, 2006) was applied to the two data sets in two sequential phases. First, both the social media and traditional media data sets were reviewed to identify and exclude content that was not relevant vis-à-vis the phenomenon in question. This review identified 344 user-generated content in the social media data set referring to other phenomena. This content was therefore excluded, resulting in a total amount of 4829 remaining user-generated content. Table 1 presents collected social media data per social media platform. In the case of the traditional media data set, no articles were identified as referring to other phenomena, and therefore the total empirical material of 411 press articles was utilized for further analysis.

Second, qualitative content analysis (Silverman, 2006) was applied by reviewing the data sets to identify ways in which actors in traditional media as well as users in social media perceive that the sharing economy is gaining traction in different sectors. In the first step, each user-generated content and press article was coded according to whether these included references to sharing-economy actors, and in such instances, which sharing-economy actor or actors were referred to (first-order coding). Here, an actor can be defined as a firm that is involved in the sharing economy and is identified in the media content collected according to the logic described above. In the second step, the associated subsectors of these sharing-economy actors were mapped (second-order coding), and in the third step, their associated sectors were traced (third-order coding). In the fourth and final step, these analyses were followed by quantitative content analysis. This was carried out by analyzing the frequency and percentage of specific actors, subsectors, and sectors that were discussed throughout the 12-month period in the media landscape, social media, and traditional media, respectively.

## 4. Results

The results are presented in two sequential steps. First, the distribution of sectors, subsectors, and actors identified in the media landscape are provided. In the next step, the distribution of dominant and peripheral sharing-economy actors in these sectors is covered.

**Table 1**  
Collected and publicly posted user-generated content per social media platform.

Social media	Frequency	Percent
Blog	177	3.7%
Facebook	403	8.3%
Forum	16	0.3%
Instagram	486	10.1%
Twitter	3747	77.6%
Total	4829	100.0%

**Table 2**  
Distribution of identified sectors.

Sector	Media landscape		Traditional media		Social media	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Mobility	754	39.1%	165	39.9%	589	38.9%
Hospitality	293	15.2%	142	34.3%	151	10.0%
On-demand services	273	14.2%	62	15.0%	211	13.9%
Fashion & clothing	258	13.4%	6	1.4%	252	16.6%
Business & work	113	5.9%	9	2.2%	104	6.9%
Food	74	3.8%	17	4.1%	57	3.8%
Logistics	47	2.4%	5	1.2%	42	2.8%
Leisure	31	1.6%	2	0.5%	29	1.9%
Kids & children	31	1.6%	0	0.0%	31	2.0%
Finance	14	0.7%	1	0.2%	13	0.9%
Miscellaneous	11	0.6%	1	0.2%	10	0.7%
Non-profit association	11	0.6%	0	0.0%	11	0.7%
Housing	8	0.4%	1	0.2%	7	0.5%
Energy	5	0.3%	0	0.0%	5	0.3%
Pets	3	0.2%	1	0.2%	2	0.1%
General services	2	0.1%	2	0.5%	0	0.0%
Construction	1	0.1%	0	0.0%	1	0.1%
	1929	100.0%	414	100.0%	1515	100.0%

#### 4.1. Distribution of sectors, subsectors, and actors

Table 2 presents the sectors that were identified in our data. As the table illustrates, 17 sectors were identified in the media landscape out of which mobility, hospitality, on-demand services, and fashion and clothing represent four dominant sectors that made up 10% of the total material respectively, while the remaining 13 sectors are more peripheral as they aggregated between 0.1 and 5.9%. With regard to associated distribution in the two different categories of media, 13 sectors were identified in traditional media, while 16 sectors were identified in social media. In both media categories, the mobility sector dominates. In contrast to traditional media, however, social media not only integrates additional sectors as well as referring to the sectors it encompasses to a much higher extent but the sector distribution is also less concentrated. Three sectors in traditional media (mobility, hospitality, and on-demand services) account for 89.1% of the total material while the corresponding percentage in social media incorporates five sectors in total (mobility, fashion and clothing, on-demand services, hospitality, and business and work).

Table 3 presents the subsectors that were identified in the media landscape. As the table illustrates, 47 subsectors were identified in the media landscape out of which personal transportation, accommodation, and clothing swap represent three dominant subsectors that aggregated more than 10% of the total material, respectively, while the remaining 44 subsectors arguably are more peripheral as they aggregated between 0.1 and 6.1%. With regard to associated distribution in the two different categories of media, 23 subsectors were identified in traditional media while 44 subsectors were identified in social media. Similar to the identified sectors, social media in this case includes a considerable amount of additional subsectors while also referring the subsectors it includes to a much higher extent. Two subsectors in traditional media (personal transportation and accommodation) together account for 70.3% of the material while the corresponding percentage in social media incorporates six subsectors (personal transportation, clothing swap, accommodation, ride-sharing, general services, and general rental services).

In terms of identified actors in the media landscape, a total of 165 unique actors aggregated 1919 references during the analyzed time period. In total, 68 actors aggregating 414 references were identified in traditional media, while 121 actors aggregating 1515 references were identified in social media. Table 4 presents the distribution of the 50 most referenced actors in the media landscape. In both media categories, Uber dominates while Airbnb also attracts considerable

attention even though their respective percentage in the two different media categories differs substantially. Also, social media contains a considerable number of additional actors that are not covered in traditional media. One example is Swopshop that ranks second in social media, while not being covered at all in traditional media during the analyzed period. Taken together, the three actors Uber, Airbnb, and Swopshop aggregated 53% of the total amount of references to sharing-economy actors and can thus be regarded as dominant, and the remaining 162 actors could therefore be regarded as peripheral.

#### 4.2. Dominant and peripheral sharing-economy actors and their associated sectors

Fig. 1 presents the distribution of actors per sector. As the figure illustrates, the four sectors of mobility, hospitality, on-demand services, and fashion and clothing dominate the media landscape while the remaining sectors are more peripheral in relative terms. In addition, three actors are clearly dominant in three of the sectors as they aggregate a considerable percentage of the total references per sector: Uber in the mobility sector, Airbnb in the hospitality sector, and Swopshop in the fashion and clothing sector. Moreover, all identified sectors include several peripheral actors, even though their relative percentages vary considerably.

## 5. Analysis and discussion

This section starts by analyzing the scope of the sharing economy in terms of its associated sectors, subsectors, and actors identified in the media landscape. After discussing the scope's associated consequences with regard to increased abundance, the second section provides managerial implications.

### 5.1. The expanding scope of the sharing economy

As discussed in the introduction as well as in the theoretical section, the sharing-economy phenomenon has been illustrated to generate increased abundance as it enables access to underutilized assets, lowering transaction costs and, by doing so, facilitates exchanges (Acquier et al., 2017). Despite the observation by the *Wall Street Journal* that "There's an Uber for Everything Now," extant literature has focused its attention on dominant firms in the sharing economy such as Uber and Airbnb (e.g., Cannon and Summers, 2014; Guttentag, 2015; Laurrell and Sandström, 2016, 2018; Wallsten, 2015; Zervas et al., 2014) while little



**Table 3**  
Distribution of identified subsectors.

Subsector	Media landscape		Traditional media		Social media	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Personal transportation	533	27.6%	149	36.0%	384	25.3%
Accommodation	291	15.1%	142	34.3%	149	9.8%
Clothing swap	244	12.6%	0	0.0%	244	16.1%
Ride-sharing	117	6.1%	0	0.0%	117	7.7%
General services	108	5.6%	17	4.1%	91	6.0%
General rental services	89	4.6%	14	3.4%	75	5.0%
Car rental	80	4.1%	15	3.6%	65	4.3%
Job opportunities	55	2.9%	7	1.7%	48	3.2%
Coworking spaces	50	2.6%	2	0.5%	48	3.2%
Transportation	47	2.4%	5	1.2%	42	2.8%
Social dining	46	2.4%	16	3.9%	30	2.0%
Repair services	27	1.4%	21	5.1%	6	0.4%
Toys	26	1.3%	0	0.0%	26	1.7%
Home restaurants	24	1.2%	1	0.2%	23	1.5%
Sports	22	1.1%	1	0.2%	21	1.4%
Delivery service	20	1.0%	7	1.7%	13	0.9%
Fashion rentals	15	0.8%	6	1.4%	9	0.6%
Dating services	15	0.8%	0	0.0%	15	1.0%
Car sharing	12	0.6%	0	0.0%	12	0.8%
Non-profit association	11	0.6%	0	0.0%	11	0.7%
Miscellaneous	10	0.5%	0	0.0%	10	0.7%
Mobility platform	9	0.5%	1	0.2%	8	0.5%
Pension savings	8	0.4%	0	0.0%	8	0.5%
Pick-up services	8	0.4%	0	0.0%	8	0.5%
Rental apartments	6	0.3%	0	0.0%	6	0.4%
Boats	5	0.3%	1	0.2%	4	0.3%
Investments	5	0.3%	1	0.2%	4	0.3%
Kids clothing	5	0.3%	0	0.0%	5	0.3%
Food waste	4	0.2%	0	0.0%	4	0.3%
Freelance services	4	0.2%	0	0.0%	4	0.3%
Gardening	4	0.2%	0	0.0%	4	0.3%
Machine rental	4	0.2%	0	0.0%	4	0.3%
City guide	3	0.2%	3	0.7%	0	0.0%
Pets	3	0.2%	1	0.2%	2	0.1%
Electricity	3	0.2%	0	0.0%	3	0.2%
Co-living	2	0.1%	1	0.2%	1	0.1%
Social services	2	0.1%	1	0.2%	1	0.1%
Bike riding	2	0.1%	0	0.0%	2	0.1%
Energy	2	0.1%	0	0.0%	2	0.1%
General goods	1	0.1%	1	0.2%	0	0.0%
Goods rentals	1	0.1%	1	0.2%	0	0.0%
Bike sharing	1	0.1%	0	0.0%	1	0.1%
Financial services	1	0.1%	0	0.0%	1	0.1%
Home exchange	1	0.1%	0	0.0%	1	0.1%
Home swaps	1	0.1%	0	0.0%	1	0.1%
Mobility facilitator	1	0.1%	0	0.0%	1	0.1%
Music services	1	0.1%	0	0.0%	1	0.1%
Total	1929	100.0%	414	100.0%	1515	100.0%

is known about other sectors of the economy in which the sharing economy is perceived to be gaining momentum.

In view of extant literature on the subject and the previous focus on dominant actors, our findings illustrate ways in which the sharing economy is extending its scope to incorporate additional sectors not traditionally associated with the sharing economy. As the sharing economy in the empirical setting of Sweden has evolved by expanding to novel sectors of the economy in which an array of actors compete and seek to expand their businesses, consequences associated with abundance which the sharing economy generates will probably be seen throughout more sectors of the economy.

### 5.2. The long tail of the sharing economy

In light of the presented results, Uber and Airbnb dominate the analyzed material drawn from the Swedish media landscape. These firms represent the most referenced sharing-economy actors over our measured time period, and this is also true for their respective sectors, i.e., mobility and hospitality. However, our results highlight that the

sharing economy is not limited to these two actors and sectors, as a total of 17 sectors (Table 2), 47 subsectors (Table 3), and 165 sharing-economy actors were identified in our analysis. As illustrated in Fig. 1, not only is the Swedish sharing economy associated with a broad number of sectors, it also encompasses a wide array of actors that compete within their associated sectors.

The Swedish sharing economy therefore seems to have a long tail, where a considerable part of the market is found in niches (Anderson, 2007). For instance, in the data from social media, Uber and Airbnb together account for approximately 34% of the total content, and about 50% of entries in social media concern actors that account for only 0.3–1% of the total. Traditional media contents exhibit a similar pattern.

As stated in the theoretical section, the sharing economy can be regarded as a discontinuous innovation since it introduces a significantly different and competing offer in established industries (cf. Hamilton and Singh, 1992; Laurell and Sandström, 2017; Walsh et al., 1995). Previous research has shown that sharing-economy firms such as Uber and Airbnb have instilled both processes of competitive and

**Table 4**  
Distribution of the 50 most referenced actors.

Actor	Media landscape		Traditional media		Social media	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Uber	507	26.4%	133	32.1%	374	24.7%
Airbnb	269	14.0%	126	30.4%	143	9.4%
Swopshop	242	12.6%	0	0.0%	242	16.0%
Uberpop	99	5.2%	0	0.0%	99	6.5%
TaskRunner	52	2.7%	5	1.2%	47	3.1%
Airdine	44	2.3%	14	3.4%	30	2.0%
Buddler	36	1.9%	0	0.0%	36	2.4%
Sunfleet	35	1.8%	2	0.5%	33	2.2%
Yepstr	30	1.6%	0	0.0%	30	2.0%
Freelway	26	1.4%	1	0.2%	25	1.7%
Cykelköket	25	1.3%	19	4.6%	6	0.4%
Meetrd	25	1.3%	0	0.0%	25	1.7%
Bundling	24	1.3%	0	0.0%	24	1.6%
Hoodifood	21	1.1%	0	0.0%	21	1.4%
Palaver Place	19	1.0%	0	0.0%	19	1.3%
BagHitch	18	0.9%	2	0.5%	16	1.1%
SnappCar	17	0.9%	8	1.9%	9	0.6%
Skjutsgruppen	17	0.9%	2	0.5%	15	1.0%
Rentl	17	0.9%	0	0.0%	17	1.1%
Airpnp	16	0.8%	7	1.7%	9	0.6%
Hygglo	16	0.8%	3	0.7%	13	0.9%
Car2Go	16	0.8%	2	0.5%	14	0.9%
Fritidsbanken	16	0.8%	0	0.0%	16	1.1%
Tinder	15	0.8%	0	0.0%	15	1.0%
Citorent	14	0.7%	0	0.0%	14	0.9%
Kollaborative Ekonomi	11	0.6%	0	0.0%	11	0.7%
Heetch	9	0.5%	9	2.2%	0	0.0%
TaskRabbit	9	0.5%	9	2.2%	0	0.0%
Bonsai	9	0.5%	1	0.2%	8	0.5%
Couchsurfing	8	0.4%	8	1.9%	0	0.0%
Foodora	8	0.4%	2	0.5%	6	0.4%
Delbar	8	0.4%	1	0.2%	7	0.5%
Lynk & Co	8	0.4%	1	0.2%	7	0.5%
Kollektiva	8	0.4%	0	0.0%	8	0.5%
RentAway	8	0.4%	0	0.0%	8	0.5%
SharingCityGbg	8	0.4%	0	0.0%	8	0.5%
Urb-it	8	0.4%	0	0.0%	8	0.5%
BMW/DriveNow	5	0.3%	0	0.0%	5	0.3%
Cirqs	5	0.3%	0	0.0%	5	0.3%
Didi Chuxing	5	0.3%	0	0.0%	5	0.3%
Homii	5	0.3%	0	0.0%	5	0.3%
Miss Borrow	4	0.2%	4	1.0%	0	0.0%
Grann saker	4	0.2%	1	0.2%	3	0.2%
GoMore	4	0.2%	0	0.0%	4	0.3%
HomeAway	3	0.2%	3	0.7%	0	0.0%
Instawork	3	0.2%	3	0.7%	0	0.0%
Addcreators	3	0.2%	0	0.0%	3	0.2%
BlaBlaCar	3	0.2%	0	0.0%	3	0.2%
Budbee	3	0.2%	0	0.0%	3	0.2%
Clickworker	3	0.2%	0	0.0%	3	0.2%
Total	1768	92.1%	366	90.6%	1402	92.5%

institutional turbulence in their respective sectors by introducing a platform logic (cf. Cannon and Summers, 2014; Laurell and Sandström, 2016; Mair and Reischauer, 2017; Thornton et al., 2012). Our findings indicate an expanding scope of the sharing economy, which in turn needs to be assessed in terms of how Uber and Airbnb have affected their respective industries. We may therefore see that increased abundance results in lower prices as supply increases by accessing previously underutilized assets (Acquier et al., 2017), while also witnessing increasing diversity in the marketplace. If platforms gain momentum, processes of competitive and institutional turbulence may be invoked in more sectors of the economy. Our data is only indicative of potential changes in the coming years, yet it is worth pointing out that diffusion processes start slowly and gain momentum exponentially. In particular, platforms are subject to substantial network effects, making their growth pattern even more explosive (Arthur, 1996). We acknowledge that technological innovation does not necessarily imply widespread

diffusion (Walsh et al., 1995) and overcoming obstacles to adoption is not a trivial task (Myers et al., 2002; Walsh, 2001), but transitions to abundance can nevertheless be very swift once a critical mass is reached and related processes of creative destruction in more sectors of society cannot be excluded.

### 5.3. Managerial implications

Our results show that a wide array of sectors within the sharing economy are presently attracting attention in traditional and social media. While personal transportation and accommodation still dominate, it is clear that other parts of the economy are affected and that these effects may pose a threat to established firms. As more sectors of the traditional economy are influenced by this transition to abundance and increasing returns, competitive turmoil becomes more likely in the coming years. Firms such as Airdine may threaten existing restaurants

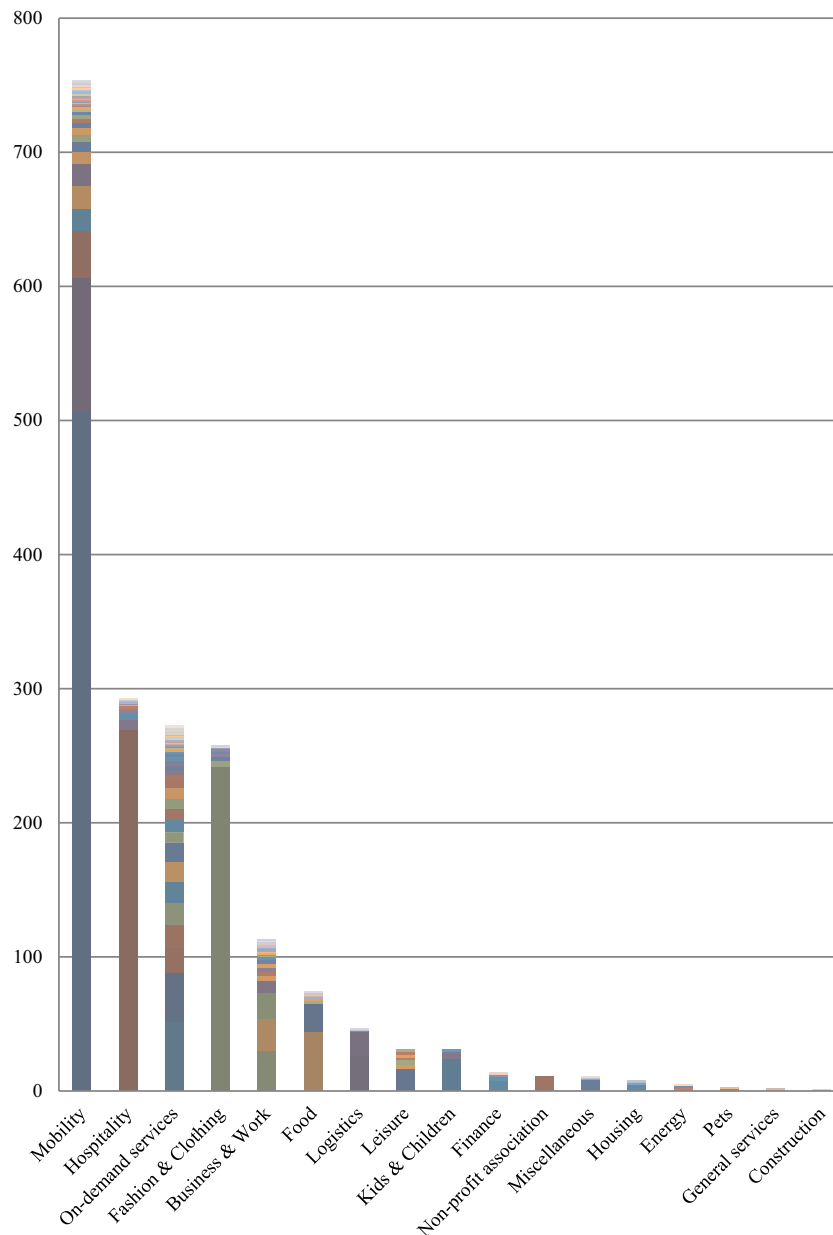


Fig. 1. Distribution of actors per sector.

by circumventing established regulations in the same way as Uber did in the personal transportation sector, thereby creating competitive and institutional turmoil. Something similar might apply for simpler services where firms like TaskRunner may become viable threats within the service sector. The fashion and clothing sector may be affected by the growth of various swapping alternatives, but it is difficult to assess the magnitude of this phenomenon and whether it will become a complement or a substitute. Other initiatives such as ride-sharing may not necessarily have any competitive effects at all, but can potentially generate novel opportunities for both entrant firms and established actors in the transportation sector. Management of emerging technologies is a critical capability (Groen and Walsh, 2013) and this skill is likely becoming more valuable in those sectors where the sharing economy is growing.

## 6. Concluding remark, limitations, and directions for future research

This paper has sought to map in what sectors the sharing economy is currently attracting increased attention while also discussing the associated consequences of increased abundance. Drawing on data from the Swedish media landscape to systematically assess ways in which actors in traditional media as well as users in social media perceive that different sectors of the economy are gaining traction, our findings reveal that the sharing economy is currently expanding its scope while also illustrating the distribution of actors within specific sectors.

Our findings illustrate how the sharing economy now encompasses novel sectors of the economy not previously associated with the sharing economy in extant literature, including, for example, on-demand services, fashion and clothing, and food delivery. We also observe a long tail of different niches spanning many sectors of the economy. In total, 17 sectors and 47 associated subsectors were identified, together containing 165 distinct sharing-economy actors. In conclusion, our findings



suggest that more sectors of society are likely to be characterized by abundance and increasing returns in the coming years due to the emergence of the sharing economy as a discontinuous innovation.

We acknowledge one main limitation of our study. The collected data sets contain user-generated content and news articles published in Swedish, which means that this study is limited to the ways in which the sharing economy is perceived in the Swedish media landscape. Therefore, the empirical focus of the data sets imposes constraints upon generalizations from this data to other national contexts.

As Western economies become increasingly characterized by abundance rather than scarcity due to discontinuous shifts in technologies related to the spread of the sharing economy, much remains to be learned about how this shift toward abundance is unfolding; we welcome further empirical research on the subject. Concerning the specific case of the sharing economy, a closer examination of whether processes of creative destruction are taking place in any of the sectors identified in this study would be of great interest. Also, we see a general need for knowledge concerning how incumbent firms can proactively turn the sharing economy into a business opportunity rather than a competitive threat.

## References

- Acquier, A., Daudigeos, T., Pinkse, J., 2017. Promises and paradoxes of the sharing economy: an organizing framework. *Technol. Forecast. Soc. Chang.* 125, 1–10.
- Akter, S., Bhattacharyya, M., Wamba, S.F., Aditya, S., 2016. How does social media analytics create value? *J. Organ. End User Com.* 28 (3), 1–9.
- Anderson, C., 2007. *The Long Tail: How Endless Choice Is Creating Unlimited Demand*. Random House.
- Arthur, W.B., 1996. Increasing returns and the two worlds of business. *Harv. Bus. Rev.* 74 (4), 100–109.
- Belk, R., 2014. You are what you can access: sharing and collaborative consumption online. *J. Bus. Res.* 67 (8), 1595–1600.
- Björkdahl, J., 2009. Technology cross-fertilization and the business model: the case of integrating ICTs in mechanical engineering products. *Res. Policy* 38 (9), 1468–1477.
- Brandt, T., Bendler, J., Neumann, D., 2017. Social media analytics and value creation in urban smart tourism ecosystems. *Inf. Manag.* 54 (6), 703–713.
- Brem, A., Bilgram, V., 2015. The search for innovative partners in co-creation: identifying lead users in social media through netnography and crowdsourcing. *J. Eng. Technol. Manag.* 37, 40–51.
- Cannon, S., Summers, L.H., 2014. How Uber and the sharing economy can win over regulators. *Harv. Bus. Rev.* 13 (10), 24–28.
- Chen, H., Chiang, R.H.L., Storey, V.C., 2012. Business intelligence and analytics: from big data to big impact. *MIS Q.* 36 (4), 1165–1188.
- Cheng, M., 2016. Sharing economy: a review and agenda for future research. *Int. J. Hosp. Manag.* 57, 60–70.
- Davidson, L., 2015. How Sweden became the startup capital of Europe. *The Telegraph* (28 June) Available at: <http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/11689464/How-Sweden-became-the-startup-capital-of-Europe.html>, Accessed date: 11 April 2017.
- Davidsson, P., Fındahl, O., 2016. *Svenskarna och internet 2016*. Internetstiftelsen i Sverige, Stockholm.
- Dreyer, B., Lüdeke-Freund, F., Hamann, R., Faccor, K., 2017. Upsides and downsides of the sharing economy: collaborative consumption business models' stakeholder value impacts and their relationship to context. *Technol. Forecast. Soc. Chang.* 125, 87–104.
- Evans, P., Wurster, T.S., 1999. Getting real about virtual commerce. *Harv. Bus. Rev.* 77, 84–98.
- Felländer, A., Ingram, C., Teigland, R., 2015. *Sharing Economy: Embracing Change with Caution*. Stockholm, Entreprenörskapsforum.
- Friedman, G., 2014. Workers without employers: shadow corporations and the rise of the gig economy. *Rev. Keynesian Econ.* 2 (2), 171–188.
- Gandomi, A., Haider, M., 2015. Beyond the hype: big data concepts, methods, and analytics. *Int. J. Inf. Manag.* 35 (2), 137–144.
- Granstrand, O., 1999. *The Economics and Management of Intellectual Property*. Edward Elgar Publishing, London.
- Groen, A.J., Walsh, S.T., 2013. Introduction to the field of emerging technology management. In: *Creativity and Innovation Management*. 22(1). pp. 1–5.
- Guttentag, D., 2015. Airbnb: disruptive innovation and the rise of an informal tourism accommodation sector. *Curr. Issue Tour.* 18 (12), 1192–1217.
- Hamari, J., Sjöklint, M., Ukkonen, A., 2016. The sharing economy: why people participate in collaborative consumption. *J. Assoc. Inf. Sci. Technol.* 67 (9), 2047–2059.
- Hamilton, W.F., Singh, H., 1992. The evolution of corporate capabilities in emerging technologies. *Interfaces* 22 (4), 13–23.
- Jung, K., Chilton, K., Valero, J.N., 2017. Uncovering stakeholders in public-private relations on social media: a case study of the 2015 Volkswagen scandal. *Qual. Quant.* 51 (3), 1–19.
- Kempf, D., 2013. *SharEconomy*. BITKOM, Hannover, Germany.
- Laurell, C., Sandström, C., 2016. Analysing Uber in social media – disruptive technology or institutional disruption? *Int. J. Innov. Manag.* 20 (7).
- Laurell, C., Sandström, C., 2017. The sharing economy in social media - analyzing tensions between market and non-market logics. *Technol. Forecast. Soc. Chang.* 125, 58–65.
- Laurell, C., Sandström, C., 2018. Comparing the impact of social and traditional media on disruptive change – evidence from the sharing economy. *Technol. Forecast. Soc. Chang.* 129, 339–344 (April 2018).
- Mair, J., Reischauer, G., 2017. Capturing the dynamics of the sharing economy: institutional research on the plural forms and practices of sharing economy organizations. *Technol. Forecast. Soc. Chang.* 125, 11–20.
- Malhotra, A., Van Alstyne, M., 2014. The dark side of the sharing economy... and how to lighten it. *Commun. ACM* 57 (11), 24–27.
- Marshall, A., 1927. *Principles of Economics: An Introductory Volume*. Macmillan and Co., Ltd., London.
- Matzler, K., Veider, V., Kathan, W., 2015. Adapting to the sharing economy. *MIT Sloan Manag. Rev.* 56 (2), 71–77.
- Möhlmann, M., 2015. Collaborative consumption: determinants of satisfaction and the likelihood of using a sharing economy option again. *J. Consum. Behav.* 14 (3), 193–207.
- Murillo, D., Buckland, H., Val, E., 2017. When the sharing economy becomes neoliberalism on steroids: unravelling the controversies. *Technol. Forecast. Soc. Chang.* 125, 66–76.
- Myers, D.R., Sumpter, C.W., Walsh, S.T., Kirchoff, B.A., 2002. Guest editorial a practitioner's view: evolutionary stages of disruptive technologies. *IEEE Trans. Eng. Manag.* 49 (4), 322–329.
- Obschonka, M., Fisch, C., Boyd, R., 2017. Using digital footprints in entrepreneurship research: A Twitter-based personality analysis of superstar entrepreneurs and managers. *J. Bus. Venturing Insights* 8, 13–23.
- PwC, 2014. *The Sharing Economy – Sizing the Revenue Opportunity*.
- Richter, C., Kraus, S., Brem, A., Durst, S., Giselbrecht, C., 2017. Digital entrepreneurship: innovative business models for the sharing economy. In: *Creativity and Innovation Management*. 26(3). pp. 300–310.
- Rifkin, J., 2014. *The Zero Marginal Cost Society*. (Frankfurt ua).
- Sandström, C., 2011. Hasselblad and the Shift to Digital Imaging. *IEEE Ann. Hist. Comput.* 33 (3), 55–66.
- Sandström, C., 2013. Facit and the displacement of mechanical calculators. *IEEE Ann. Hist. Comput.* 35 (3), 20–31.
- Silverman, D., 2006. *Interpreting Qualitative Data, Third edition*. SAGE Publications, London.
- Stieglitz, S., Dang-Xuan, L., Bruns, A., Neuberger, C., 2014. Social media analytics. In: *Business & Information Systems Engineering*. 6(2). pp. 89–96.
- Strömbäck, J., 2015. *Future Media Environments, Democracy and Social Cohesion*. In: *Digital Opportunities*, 1st ed. Digitaliseringskommissionen, Stockholm, pp. 97–122.
- Sundararajan, A., 2016. *Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism*. MIT Press, Cambridge.
- Temperton, J., 2017. Europe's 100 hottest startups 2017: the hottest startups in Stockholm. *Wired* (27 September) Available at: <http://www.wired.co.uk/article/best-startups-in-stockholm-2017>, Accessed date: 26 October 2017.
- Thornton, P.H., Ocasio, W., Lounsbury, M., 2012. *The Institutional Logics Perspective: A New Approach to Culture, Structure, and Process*. Oxford University Press on Demand.
- Wall Street Journal, 2015. There's an Uber for everything now. URL: <http://www.wsj.com/articles/theres-an-uber-for-everything-now-1430845789> (accessed 04.28.2017).
- Wallsten, S., 2015. The competitive effects of the sharing economy: how is Uber changing taxis? In: *Technology Policy Institute*. 22.
- Walsh, S., 2001. Portfolio management for the commercialization of advanced technologies. *Eng. Manag. J.* 13 (1), 33–37.
- Walsh, S.T., Boylan, R., Warrington, R., Carr, W., Elders, J., 1995. The strategic development of HARM manufacturing technologies. *Microsyst. Technol.* 2 (1), 119–125.
- Zervas, G., Proserpio, D., Byers, J.W., 2014. The rise of the sharing economy: estimating the impact of Airbnb on the hotel industry. *J. Mark. Res.* 54 (5), 687–705.

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