How much is too much?
Assessing the demand, the economic impact and the perception of ‘sharing accommodation’ in tourism destinations

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Ulf Sonntag, NIT
A “young” phaenomenon …

Need to measure in order to understand …
The good and the bad of “sharing accommodation”

- Additional income
- Social enrichment (meet interesting people)
- Redistribution of tourism in the city
- Disturbance of neighbourhoods, loss of identity, “touristification”
- Spatial competition (availability and prices of real estate)
- (Unfair) Competition for the hotel industry
A controversial topic: The inside and the outside perspective of Airbnb

https://www.youtube.com/watch?v=yetFk7QoSck

https://learnairbnb.com/neighbors

https://learnairbnb.com/neighbors-killed-airbnb-unit/
How to access the data? – To use scraped data is the standard …


http://insideairbnb.com/about.html

https://www.seetransparent.com/dmos.html

https://www.airdna.co/vacation-rental-data
Then you can do cool stuff with the data …
Where and how much? Spatial distribution of Airbnb listings

Heatmap: Hotel agglomerations vs. Airbnb distribution

Borders
- Districts
- Local councils

Number of Airbnb listings:
- 1 - 50
- 50 - 100
- 100 - 150
- 150 - 250
- 250 - 300
- 300 - 500
- 500 - 745

Data provided by Airdna, restricted to those listings online by Oct. 4, 2017 - Oct. 10, 2017
Zooming in: Agglomerations of Airbnb capacities

2,920 listings = 45.9% of total

989 listings = 15.5% of total

Data provided by Airdna, restricted to those listings online by Oct. 4, 2017 - Oct. 10, 2017
Dynamics: Development of Airbnb capacities in Malta

Data provided by Airdna, restricted to all listings rented at least once during the given month
Demand dynamics: Development of demand KPIs in Antwerp

Data provided by Airdna, restricted to listings rented in each month, period of November 2016-October 2017.

"Reservation Days" is the result of an estimate based on the calendar information on the Airbnb website by Airdna.
Overview: Airbnb in Antwerp, Key data, 11/2016 through 10/2017

Host: A host is a person who advertises a listing on the Airbnb website.

Listing: A listing is a unit advertised on the Airbnb website.

Listings online: All listings online (advertised on the website)

Listings rented: All listings online which were actually rented at least once

Reservation days: Number of reservation, estimated from calendar information

Maximum accommodates: The maximum number of bedplaces in the advertised unit.

Revenue: EUR 10.5 million

1,771 hosts

1,892 units (listings rented)

2,360 units (listings online)

7,013 bedplaces (maximum accommodates)

137,113 reservation days

Data provided by Airdna, reference period: 11/2016-10/2017
Time series and projection: Revenue (thousand EUR)
### Put it into perspective: with other statistics

<table>
<thead>
<tr>
<th></th>
<th>Copenhagen</th>
<th>Barcelona</th>
<th>Dublin</th>
</tr>
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<tbody>
<tr>
<td>Inhabitants (thousand)</td>
<td>591</td>
<td>1,600</td>
<td>553</td>
</tr>
<tr>
<td>Area, km²</td>
<td>86</td>
<td>101</td>
<td>115</td>
</tr>
<tr>
<td>Airbnb listings (7/2017)</td>
<td>21,301</td>
<td>18,838</td>
<td>7,929</td>
</tr>
<tr>
<td>Airbnb listings per 1,000 inhabitants</td>
<td>36</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Airbnb listings per km²</td>
<td>248</td>
<td>187</td>
<td>69</td>
</tr>
</tbody>
</table>

Data from Airdna, Tom Slee and other sources, data analysis from NIT, all data checked for city boundaries, Copenhagen exclusive of Fredriksberg Kommune
Comparing: Listings per host in selected cities

Copenhagen
- 16,600 hosts
- 17,800 listings
- 1.07 listings/host

Barcelona
- 10,200 hosts
- 17,300 listings
- 1.70 listings/host

Dublin
- 3,757 hosts
- 5,444 listings
- 1.45 listings/host

Airbnb data of March 2017 from Tom Slee, data analysis from NIT, all data checked for city boundaries, Copenhagen exclusive of Fredriksberg Kommune
Combining:
Airbnb capacity data with population statistics and resident studies

Positive-negative Perception of Tourism (balance, Percentage-points)*

Dots = different districts of a destination

Airbnb-accommodates** per 1,000 inhabitants***

* based on representative results of resident studies of a destination; ** based on Airdna data; *** based on population statistics
Learnings: The data is valuable for tourism destinations

» Additional data source to measure a growing part of tourism that is not covered by official statistics

» Analyse the development of capacities and demand; assess the economic impact

» The data become more valuable when put into perspective with other statistics: e.g. administrative boundaries, population statistics, housing statistics

» Possible to use them as a basis/ in combination with resident surveys to tackle the “social” impact to analyse “tipping-points” of “too much tourism”

» Help to find the crucial factors towards a better governance of tourism in a destination: e.g. Airbnb capacities per inhabitant, speed of growth, competition of housing and tourism, multi-listings-hosts, tourism perception of residents

» Before starting to work with the data: Need to define the questions first!
Learnings: Care and accuracy is needed

» Need to be careful about the definitions you are using and the data you are working with:
  E.g. visible listings, bookable listings or booked listings; City limits or keyword search

» Be aware of the limitations of the data:

  » Overlap between the known official suppliers and the Airbnb supply
    (e.g. small hotels using Airbnb as a sales platform)

  » Multiple listing of the same accommodation (e.g. the same room is listed as a shared
    room as well as being part of a whole apartment).

  » Fuzziness of the Airbnb geolocation data (by ca. 150m.)

» Know about the reliability of the data:
  E.g. reservation days and revenue data are not necessarily generated through Airbnb
Thank you!

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