precisely

Understanding human mobility and changing behaviours post Covid

Harvey Blenkarne Martin James Nick Hall



UK Housing Authority Tale of Two Datasets – ptl

- Grounds maintenance data created by the HA from their staff's knowledge and experience. Initial goal to simply create an ownership dataset.
- Data then validated and cross referenced with Land Registry, This base-lined the data and gave the users and decision makers a level of confidence.
- 1st Benefit Cost savings. HA used the results to vastly improve environmental teams efficiency. Eliminated some unnecessary work and focused workers and assets more intelligently.
- 2nd Benefit Transparency. HA re-engineered their internal service charge system to more 'fairly' allocate costs to properties based on the local environment.



UK Housing Authority Tale of Two Datasets – pt2

- HA purchased lifestyle and demographic data. Goal to create broad-brush. 'profiles' of their tenants/customers. Goal of a more focused or targeted response to a broad range of issues.
- Data then fed into their property database and used it to analyse the numbers of different types of people they served.
- 1st Benefit Improved Neighbourhoods. HA used the results to better match new tenants to their neighbours.
- 2nd Benefit Planning and Funding. HA also used this data when planning new homes by using the customer profiles from nearby housing stock to determine housing requirements, etc. Potential to improve \$106 planning conditions as well.



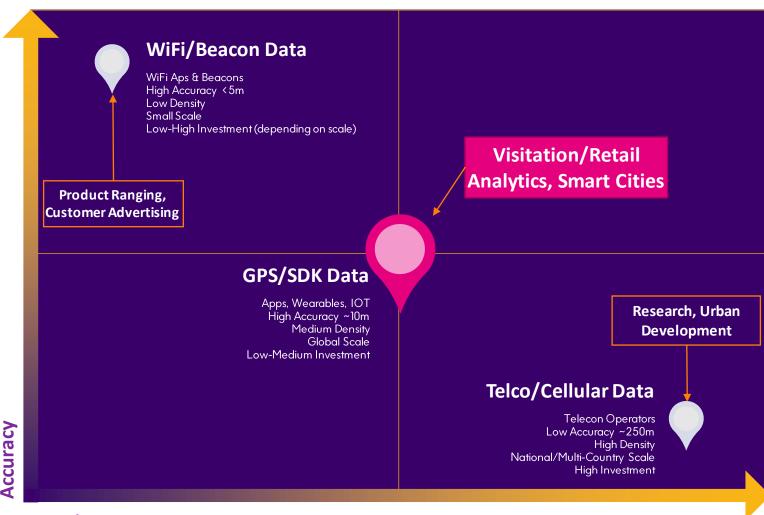
The next step in data

- Limitations of static data
 - Inflexible and single snapshot capture
- Data that doesn't require vast wrangling or analysis to derive insights
 - Need data that is ready to use, and potentially heavy lifting analysis already performed
- Flexible to integrate with business systems
 - Needs to align and cooperate with existing company data and processes



Human Mobility

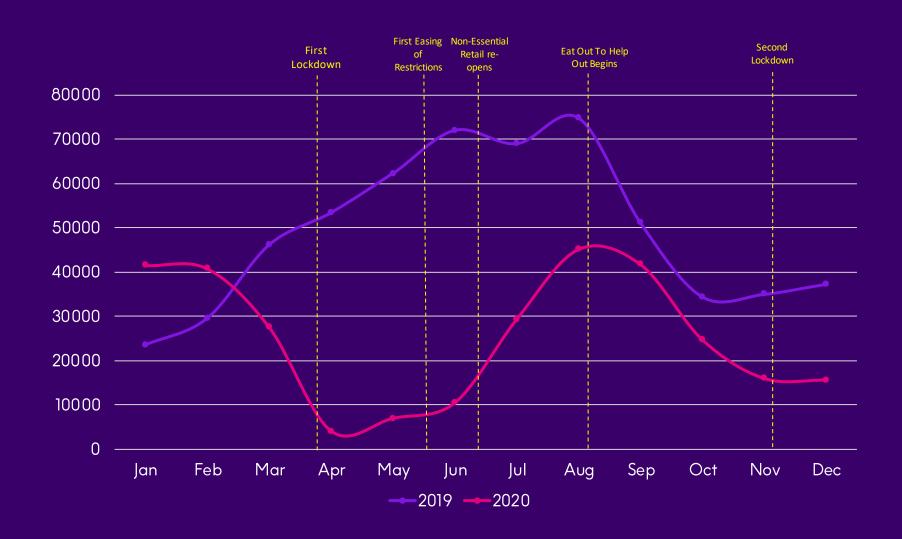
What is Mobility Data?





Liverpool Central

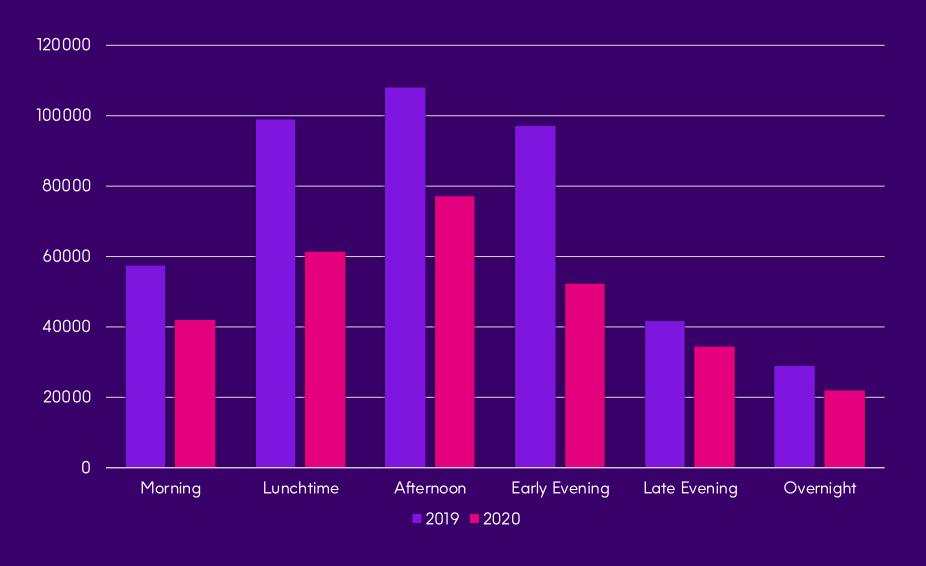
Liverpool Central: 2019 vs 2020 Activity



COVID Impact

Drastic drop in visitors to city centre. Eat Out To Help Out drives more in months after easing of restrictions

Liverpool Central: 2019 vs 2020 Activity

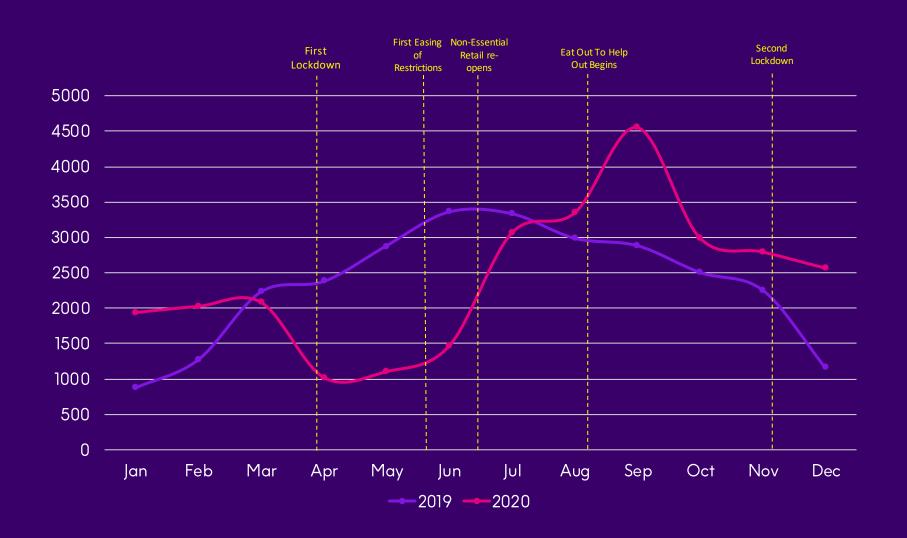


Time of Day Analysis

Biggest impact on lunchtime to Early Evening time slots. People are not engaging or travelling during day as much.

Liverpool Old Swan

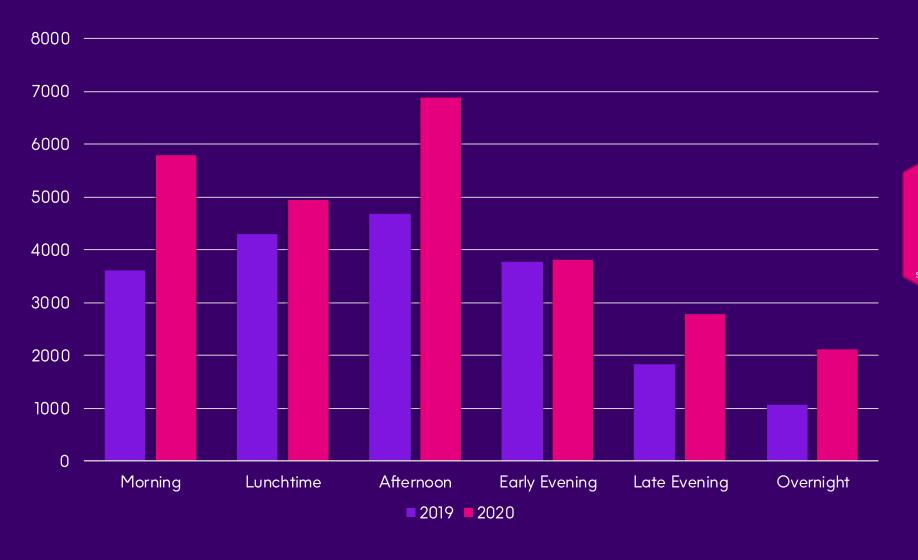
Liverpool Old Swan: 2019 vs 2020 Activity



Different Trend

Local areas saw increase of business as consumers avoided busy city centre and chose to engage with more local services.

Liverpool Old Swan: 2019 vs 2020 Activity



Consumer Increase

Increasee of activity acrosse all times of the time as we see the way people engage with local services changed prior to COVID.

Human mobility within Public Sector

- Understanding city/town centre interaction and local population movement trends
 - Understanding who is interacting and when
 - COVID impact and analysis
- More efficient and personalised provision of services to the public
 - Services such as waste collection, parking, lighting, etc.
- Further understanding of people and movement to improve customer experience
 - Housing Authorities providing targeted and focused service based on specific needs and trends as they change





precisely