WHAT’S IN THIS WEBINAR?

- Key findings from Data61 report, *The Potential for Alternative Data Sources to meet Tourism Data Needs*
- TRA’s findings since the Data61 report
- Opportunities and challenges in the complementary data space
- Future possibilities
MEET OUR PRESENTERS

- Rod Battye, Manager, Tourism Statistics, Tourism Research Australia
- Craig Young, Dr Phil Hughes and Tanul Mehta from Engine
- Hugh Amoyal, Big data expert and thought leader

For more on our presenters, see the Key Speakers Brochure within your webinar invitation
WHAT DOES TRA DO?

TOURISM SURVEY AND DATA MANAGEMENT

STRATEGIC RESEARCH AND ANALYSIS

FORECASTING TOURISM ACTIVITY
We provide statistics and research on both international and domestic tourism within Australia.

We also provide research and analysis on the economic value of tourism to the economy. Our data assists the government, tourism industry and other Australian businesses to make informed planning, marketing and investment decisions.
MEASURING TOURISM: THE CHALLENGES

Accommodation  Air transport  Food services  Arts & entertainment  Touring services
Retail  Car rental  Taxis & public transport  Water transport  Fuel
KEY FINDINGS OF THE DATA61 REPORT

- Value in surveys, but opportunity to complement with other data sources
- Tourism data users want trusted agencies like TRA/ABS to be involved to ensure quality & provide advice/guidance on how to use commercial data
OVERALL POTENTIAL OF OTHER DATA SOURCES

- Provide data at more granular levels of detail
- More timely (once setup)
- More frequently with more flexible time periods
- Detailed travel paths
- Near real time reporting (once setup)
- Forward looking metrics
TOP 4 SOURCES OF COMPLEMENTARY DATA

- TELECOMMUNICATIONS
- TRANSACTIONS, INCLUDING FINANCIAL
- SOCIAL MEDIA
- BOOKINGS & TICKETING
DATA QUALITY FRAMEWORK

Institutional Environment
The institutional and organisational factors which may impact on the effectiveness and credibility of the agency producing the statistics

Accessibility
The ease with which the information can be obtained

Interpretability
The availability of supplementary information necessary to interpret the statistical information

Relevance
The degree to which information meets the needs of users

Timeliness
The delay between the reference period and the release of the information

Accuracy
The degree to which the information correctly describes the phenomena being measured

Coherence
The degree to which the information can be brought together with other information, and over time
<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>CHALLENGES</th>
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<tbody>
<tr>
<td>✓ Provides insights on spending pattern behaviours</td>
<td>× Tourism not clearly defined</td>
</tr>
<tr>
<td>✓ Granular</td>
<td>× Non representative sample</td>
</tr>
<tr>
<td>✓ Available soon after reference period</td>
<td>× Privacy/licensing = limited access</td>
</tr>
<tr>
<td>✓ Better for domestic than international</td>
<td>× Partial coverage of items</td>
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<tr>
<td>✓ Provides insights on events</td>
<td>× Relies on card use</td>
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<td>× Items such as purpose of visit, travel party etc. limited</td>
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<tr>
<td>OPPORTUNITIES</td>
<td>CHALLENGES</td>
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<tr>
<td>---------------------------------------------------</td>
<td>-------------------------------------------------</td>
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<tr>
<td>Best for tracking movement</td>
<td>Non representative sample</td>
</tr>
<tr>
<td>Very granular and real time reporting</td>
<td>Narrow topic range</td>
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<tr>
<td>Good for event measurement</td>
<td>Better for domestic than international</td>
</tr>
<tr>
<td>Can work with surveys to improve official statistics</td>
<td>Can be expensive to purchase</td>
</tr>
<tr>
<td>Tourism definitions mostly covered</td>
<td>Limited access and licensing</td>
</tr>
<tr>
<td>Travel paths can be clearly highlighted</td>
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DSpark’s Mobility Genome™ translates large volume of OPTUS mobile raw location data to usable data on people’s movements.

3 billion geo signals collected everyday from 1/3 of the population.

Mobility Genome™ processes data

Anonymised & Aggregated

Mobility intelligence in the hands of the organisation

Movements
- Origin-Destination Matrix
- Trip, Trip Legs & Transfers
- Trip Purpose
- Mode of Transport
- Inbound Travel

Places
- Footfall
- Catchment
- Stay Point
- Duration of Visit
- Purpose of Visit

People
- Demographics
- Country of Origin
- Home and work location
- Hangout location
- Radius of gyration

Processes data at scale
Clean & accurate data
Any spatial-temporal data
Fast turnaround
<table>
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<th>OPPORTUNITIES</th>
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<tr>
<td>✓ Near real time insights</td>
<td>× Qualitative not quantitative</td>
</tr>
<tr>
<td>✓ Good source of sentiment and satisfaction info</td>
<td>× Non representative sample</td>
</tr>
<tr>
<td>✓ Early warning and crisis management</td>
<td>× Application Programming Interfaces (API) are constantly changing</td>
</tr>
<tr>
<td>✓ Easy to monitor and find emerging trends</td>
<td>× BOTS and self interest groups can impact accuracy</td>
</tr>
<tr>
<td>✓ Good for a range of topics accommodation/attractions/food and dining/events</td>
<td>× Unstructured volumes of text, images, video and sound</td>
</tr>
<tr>
<td></td>
<td>× Works best when customised for each customer</td>
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8.2M Followers

3.2M Followers

One of Tripadvisor’s most reviewed destinations

However, Social Media Intelligence is under-utilised
### Bookings and Ticketing

<table>
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<th>Opportunities</th>
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<td>✓ Near real time reporting</td>
<td>× Tourism not clearly defined</td>
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<tr>
<td>✓ Bookings can be forward looking</td>
<td>× Limited reporting items</td>
</tr>
<tr>
<td>✓ Reports at granular levels of geography incl. locations/ events</td>
<td>× Can be expensive and access is limited</td>
</tr>
<tr>
<td>✓ High level of automation possible</td>
<td>× Only partially covers key variables</td>
</tr>
<tr>
<td>✓ Time series available</td>
<td>× Messy, as it comes from disparate sources</td>
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OVERALL CHALLENGES

- Privacy
- Cost, licensing, access
- Ability to define tourism
- Quality
- Coverage
- Representativeness
PRIVACY AND BIG DATA

- Relevant legislative arrangements
- Additional privacy issues with big data
- Trends (and related implications) in changing attitudes to privacy
Whether you are collecting, manipulating or analysing big data yourself – or are commissioning others to do so for you, may alter legal consequences, but is increasingly unlikely to afford protection against reputational damage. This is all the moreso for government agencies.

- Detailed, informed consent for the use of peoples’ data is essential.
THE ROLE OF GOVERNMENT DATA

Government is already working together to merge data sets for the following reasons:

- to improve benchmark data for our major collections
- to create new insights/variables
- reduces the need to go to the public in the form of a survey
FUTURE POSSIBILITIES

- Work with commercial providers to produce optimal CDS products
- Improve official statistics through calibration, additional benchmarking and modelling work
- Build guidelines for data users
- Provide education to data users
BRII CHALLENGE

ARE YOU UP FOR A MILLION-DOLLAR CHALLENGE?

Applications close April 17

Intelligent data to transform tourism service delivery

MORE INFORMATION

- Email any questions to tourism.research@tra.gov.au
- Find the Data61 report and other tourism statistics at www.tra.gov.au
- Read the Guide to Data Analytics and the Australian Privacy Principles at www.oaic.gov.au
- A recording of this webinar will be available at www.austrade.gov.au