

Challenges of data analytics strategies for cultural tourism in peripheral areas

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The World of Data

Over the last decade, advances in the collection, analysis, and application of data have transformed the way decisions are made in a wide variety of fields.

Data-driven economy is not only changing consumer behaviour and business models, but will increasingly affect society and our interaction with real and digital world.



SOURCE: McKinsey Global Institute analysis, 2013



(Big) Data Analytics

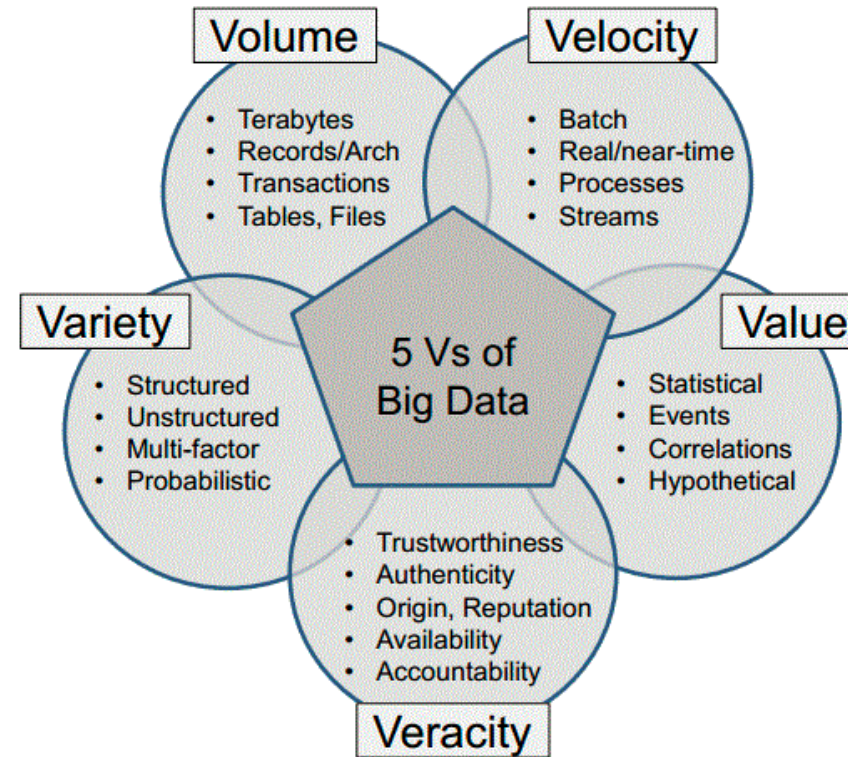
- Recently emerged as a new buzz-word
- New layer of the digital revolution based on connectivity and digitization
- Key emphasis in data-driven decision-making



Big Data: a definition

“Datafication” is the movement behind Big Data. Big Data implicitly requires 3 paradigm shifts:

1. from “some” to “all”
2. from “clean” to “messy”
3. from “causation” to “correlation”



(Big) data analytics and cultural organizations

- New data-driven metrics for artistic quality or cultural experiences' value:
 - Knowledge dissemination and reuse of digital content (Bray, 2009)
 - Visitors' Sentiment
 - Visitors' Attention (Yoshimura et al., 2014)
- Data-driven business models
 - Cultural organizations can offer extended experience and commercial services in exchange for information about their audience
 - Dallas Museum of Art's free membership scheme (A falling pioneer!!!)



The national audience data and development toolkit that enables arts, culture and heritage organisations to share, compare and apply insight.

Funded by Arts Council England, Arts Council of Wales and Creative Scotland, Audience Finder is the UK's audience insight service, powered by a vast arts, culture & heritage dataset. Whatever you need, and whatever your organisation size or budget, this constantly developing suite of audience analysis tools and evidence-led support is designed to help arts organisations gain a truthful and useful understanding of the audiences they serve.

Audience Finder Data Tools work together to allow you to:

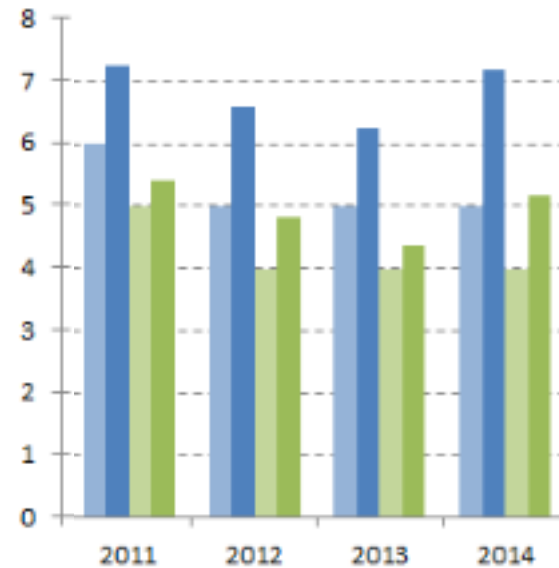
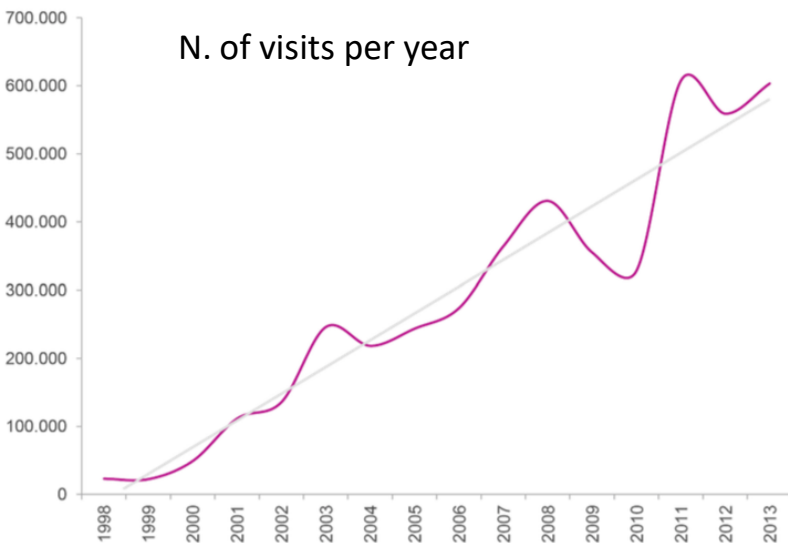
- **Collect and analyse data** with a standardised approach that builds a picture of audiences locally and nationally.
- **Generate clear audience reports** to keep funders and stakeholders informed.
- **Identify new audience opportunities** in a range of ways, including user-friendly dashboards, catchment mapping, and behaviour insight tools.
- **Work in collaborative, data-sharing groups** to build your audience development practice alongside peers.



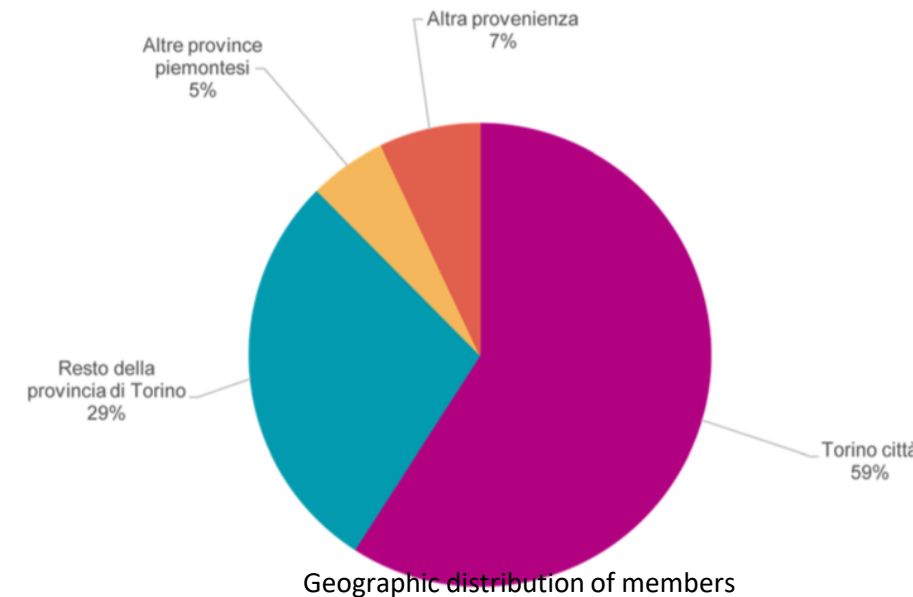
Got a question about how to use Audience Finder Data Tools? Head to our Community Knowledge Base...

Abbonamento Musei Torino Piemonte (AMTP)

- Museum Card for residents in the region since 1998
- Free and unlimited access to all museums in Piedmont (price about 50€)
- As of 2014, more than 100,000 members.
- Rich and unique source of microdata of cultural consumption



Median and Avg visits and museums visited pcapita



Geographic distribution of members



Research Questions

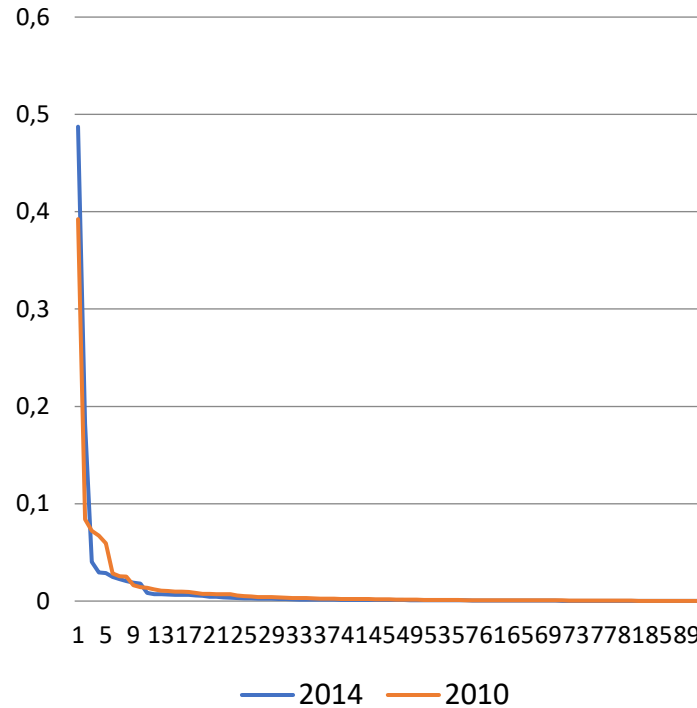
- What type and characteristics of cultural amenities outside of the metropolitan areas are more likely to attract excursionist flows of AMTP-members?
- What individual factors influence cultural excursionism behavior?
- What relationship exists between within-city museums visits and out-of city visitation patterns?



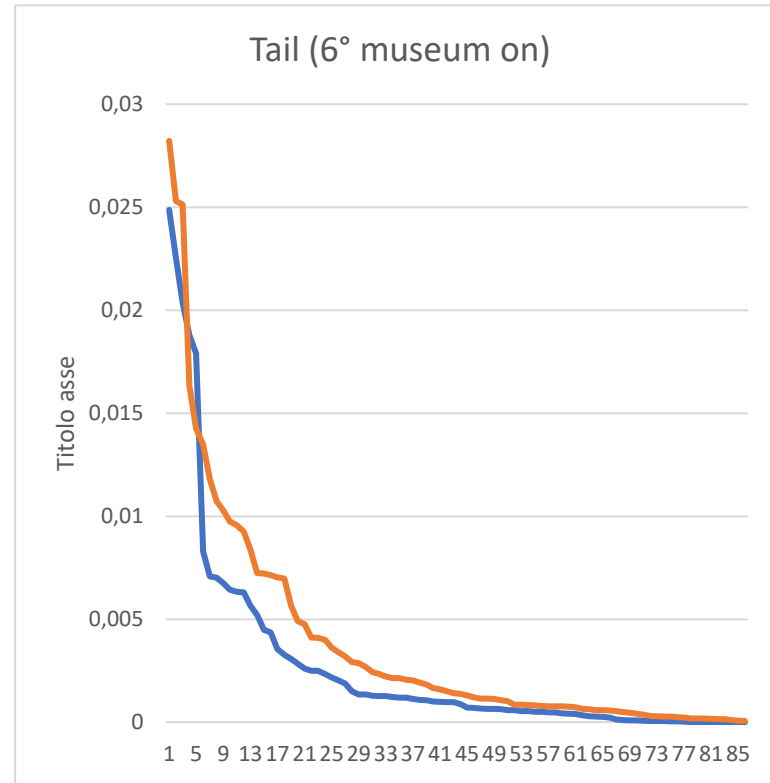
We restrict our analysis to visits by adult residents of Turin to 112 museums and heritage institutions outside the city.

Excursionists' attendance patterns

Visits per museum (*normalized*)



Tail (6° museum on)



Top 5 attractors

	2014		2010
REGGIA DI VENARIA REALE	53549	REGGIA DI VENARIA REALE	18682
FORTE DI BARD	20020	CASTELLO DI RIVOLI - MUSEO D'ARTE CONTEMPORANEA	3191
PALAZZINA DI STUPINIGI	4405	CASTELLO DI RACCONIGI	3439
CASTELLO DI RIVOLI - MUSEO D'ARTE CONTEMPORANEA	3209	CASTELLO DI MIRADOLO	2821
CASTELLO DI MIRADOLO	2733	FORTE DI BARD	3996

Total number of visits: 109,898 (2014); 58,994 (2013)

In 2014 and 2010 the first 5 museums attracted 76% and 67% of excursionists visits of AMTP members from Torino

Findings

- Power-law shape of excursion distributions
- Stability of cultural excursions patterns
- Characteristics of top cultural excursionism destinations:
 - Monuments, organization of exhibitions, accessibility, presence of environmental amenities
- Differences across excursionists:
 - Male vs female
 - Affluent vs non-affluent
 - Loyal vs occasional users



(Big) data analytics' empirical challenge

- Big data analytics is not the panacea
- Example: Transactional data vs survey-based data
- Large amount of data, cheaper to collect information but...
 - Risk of selection bias
 - Transactional data have generally less sensitive information on sociodemographics
- Best for analysis of behavioral patterns, but less for predicting behavior of new type of visitors.



Policy challenges

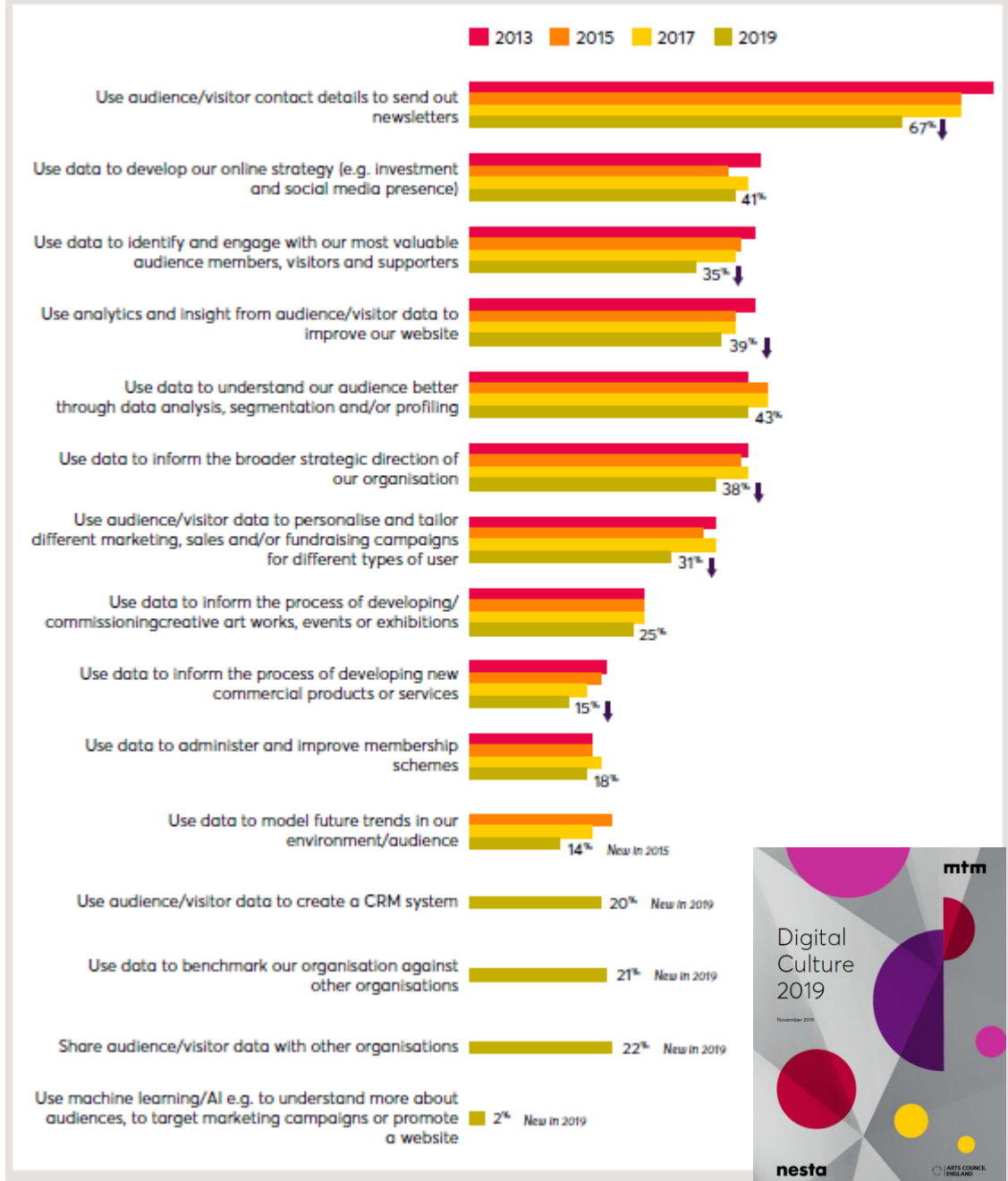
- Privacy concerns
- Institutional limits to data use and disclosure
- Data analytics poses newer trade-offs as to consumers' privacy (Brandimarte and Acquisti, 2012)
 - Welfare improvement from profiling and price discrimination
 - Cost of disclosure of data about identity and behavior (risk of misuse)
- Are data on cultural behavior more sensitive for consumers than data in other area of action?



Why data-driven strategies fail?

- Management aspiration is not supported by financial commitment to invest in such new technological trajectory
- Difficulty in search and integration of new technological skills
- Cultural and attitudinal barriers

Figure 12: Proportion of organisations undertaking data-related activities



Thanks

