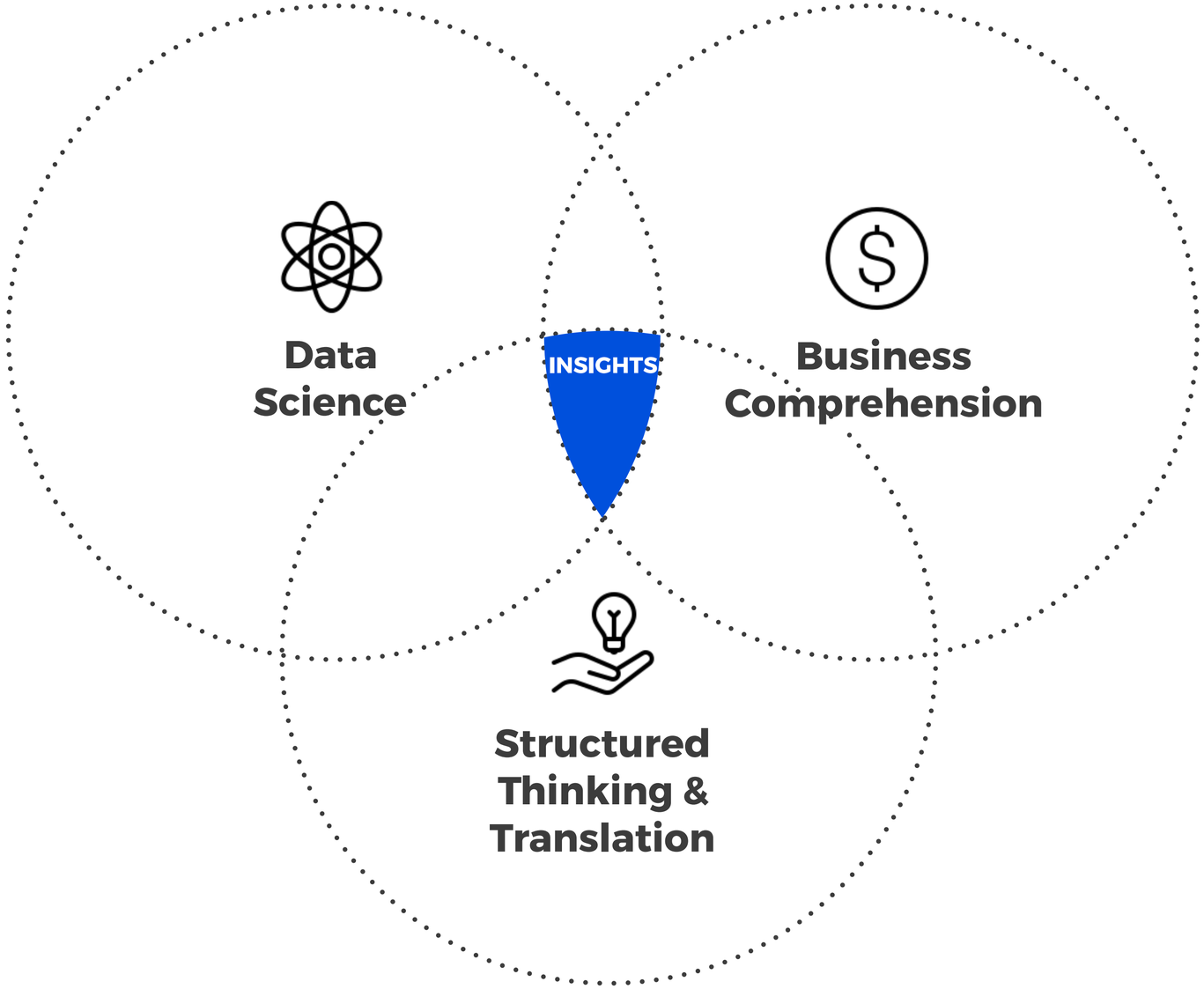
EXPLORING DIGITAL ETHNOGRAPHY

NIOMETRICS

A NEW BREED OF TECHNOLOGIES FOR A NEW BREED OF DATA

We build **Carrier-Scale** Technologies and Solutions that enable the Telecommunications Industry to **capitalise** on their **unique data** advantage:

I take care of Insights...
But what are they for us?



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Today, we are talking about ‘Digital Ethnography’ and why it is a great example of ‘Power Through Simplicity’.

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ETHNOGRAPHY

/ɛθˈnɒgrəfɪ/

The branch of anthropology that deals with the **scientific description of individual human societies and groups.**

‘Digital Ethnography’

=

Ethnography based on **‘Online Mirroring’**

How we understand ourselves, as a **society,** as reflected by our **digital behaviours.**

Boosted by today's ubiquitous connectivity, digital ethnography addresses a broad range of questions about our 'collective selves'.

Ethnography must follow 3 non-negotiable principles.

Obtain permission

Ensure data owners are aware that their data will be used for group-wide analyses.

Aggregate

Show behaviours that cannot be directly linked to individuals or smaller groups of people.

Anonymise

Ensure individual traits cannot be discovered or inferred, by eliminating unique identifiers and limiting idiosyncratic slicing.

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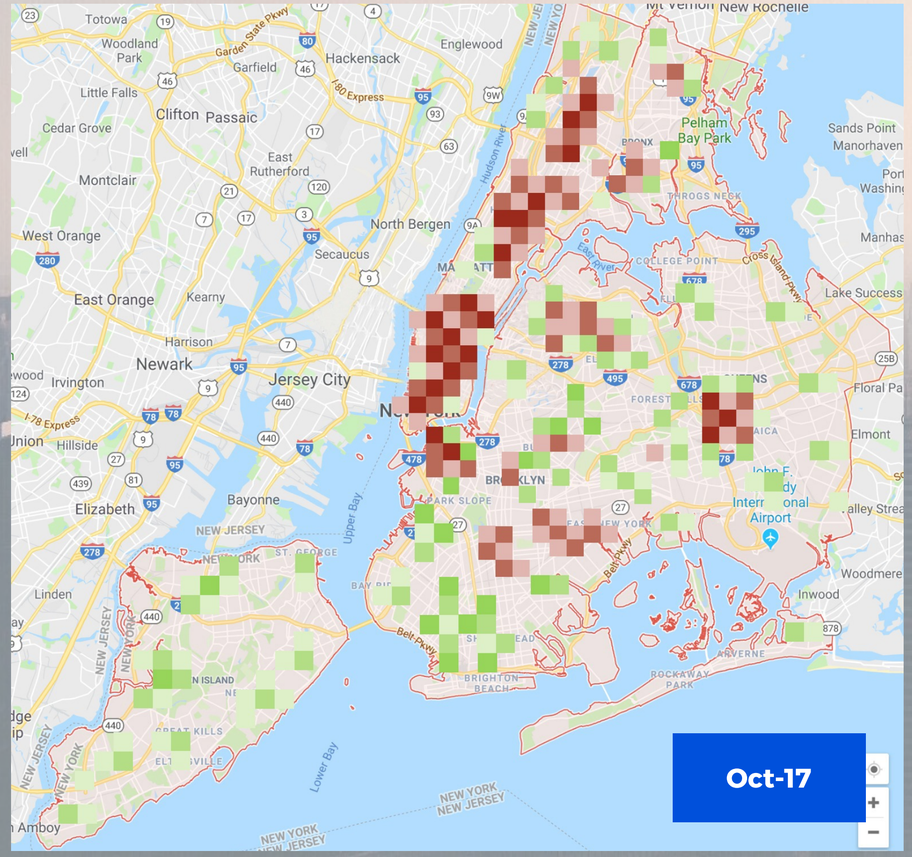
OK, SO WHAT ARE SOME DUMMY AND ANONYMISED EXAMPLES OF OUTPUTS?

Is money borrowing growing within our society? Where? How quickly?

Interest on money borrowing

Above or below country average per month



Source: Illustrative analysis based on dummy data.

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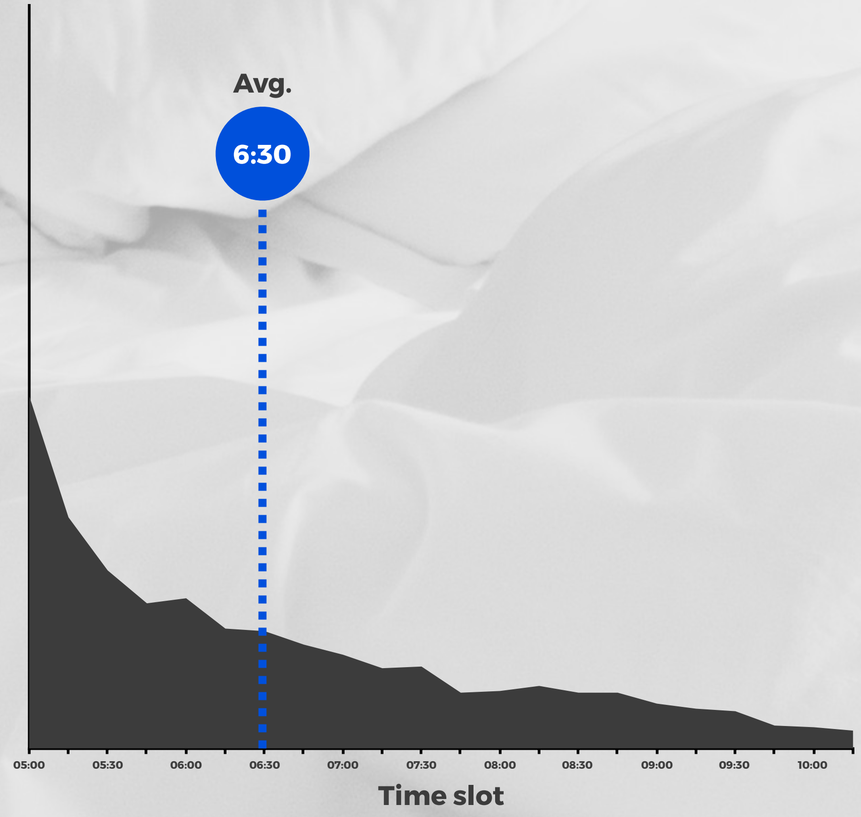
What time of the day do household dwellers typically wake up and go to bed on?

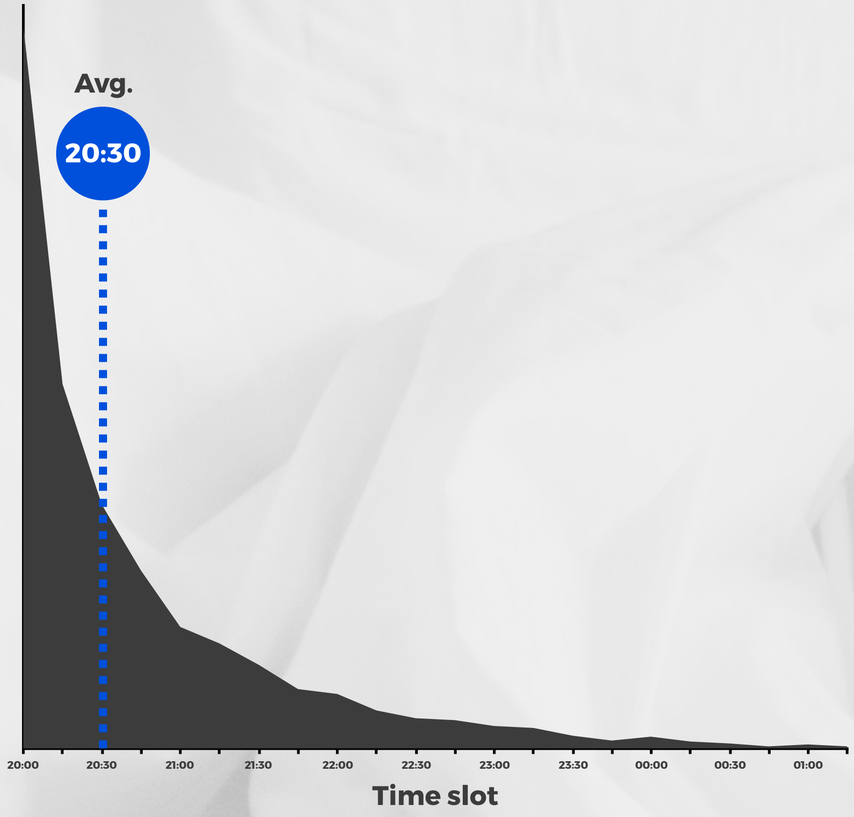
Wake up time

(% of HH dwellers waking up in that window)



Bed time

(% of HH dwellers going to bed in that window)



Source: Illustrative analysis based on dummy data.

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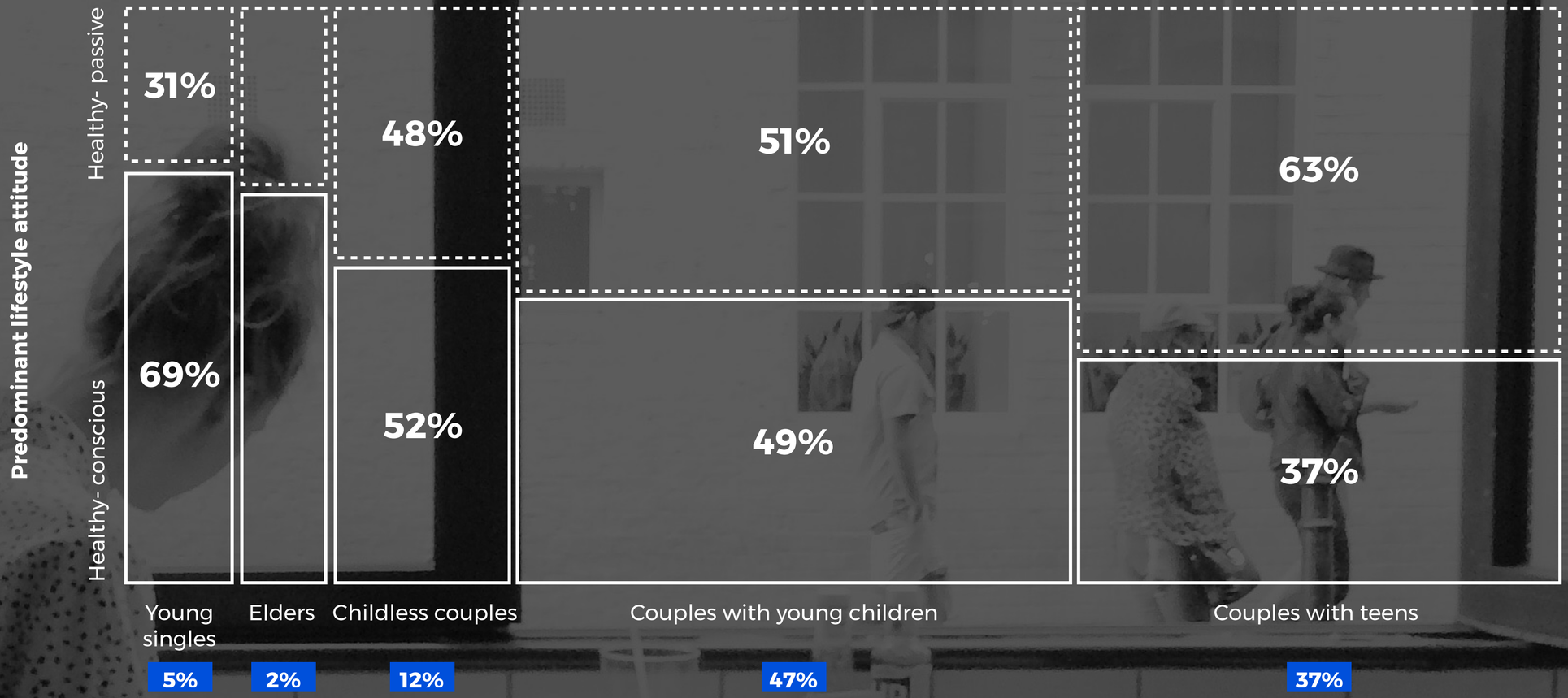
What is the predominant lifestyle attitude inferred across different households?

Predominant lifestyle vs. inferred household type

Split by type of household



Source: Illustrative analysis based on dummy data.

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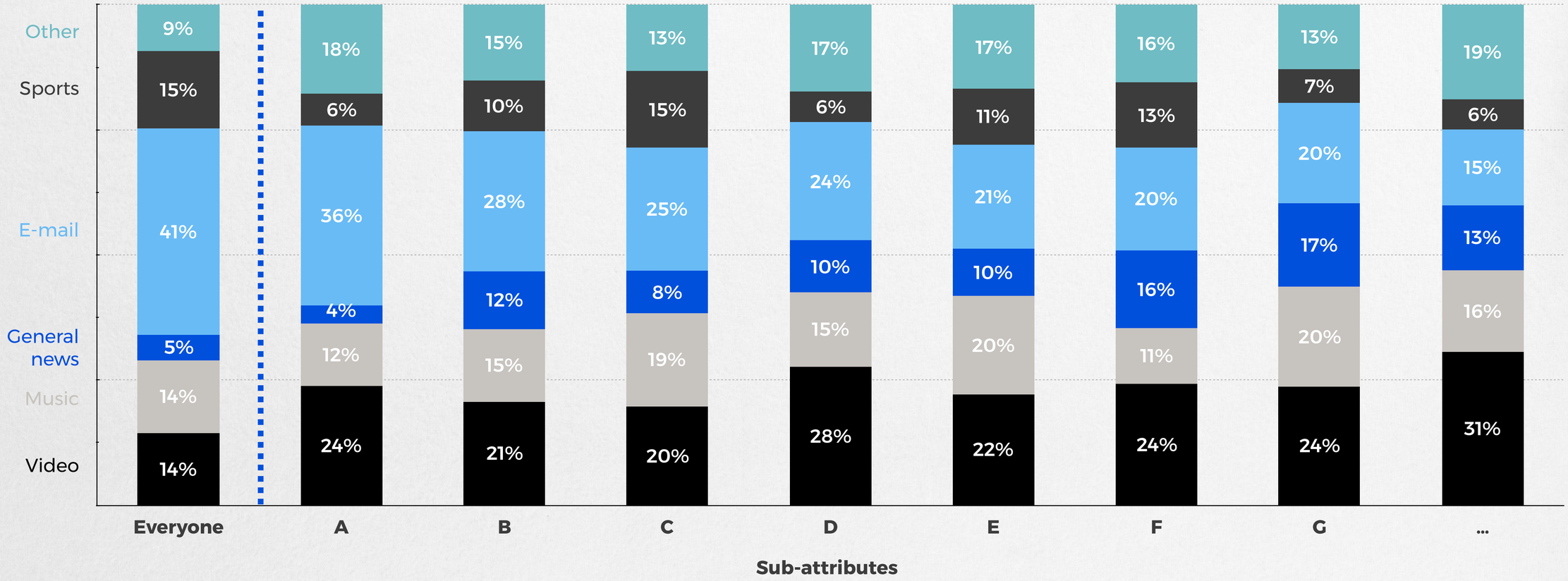
How do people split in the predominant interests they have?

Predominant online interest (measured by time of use)

By sub-regions



Source: Illustrative analysis based on dummy data.

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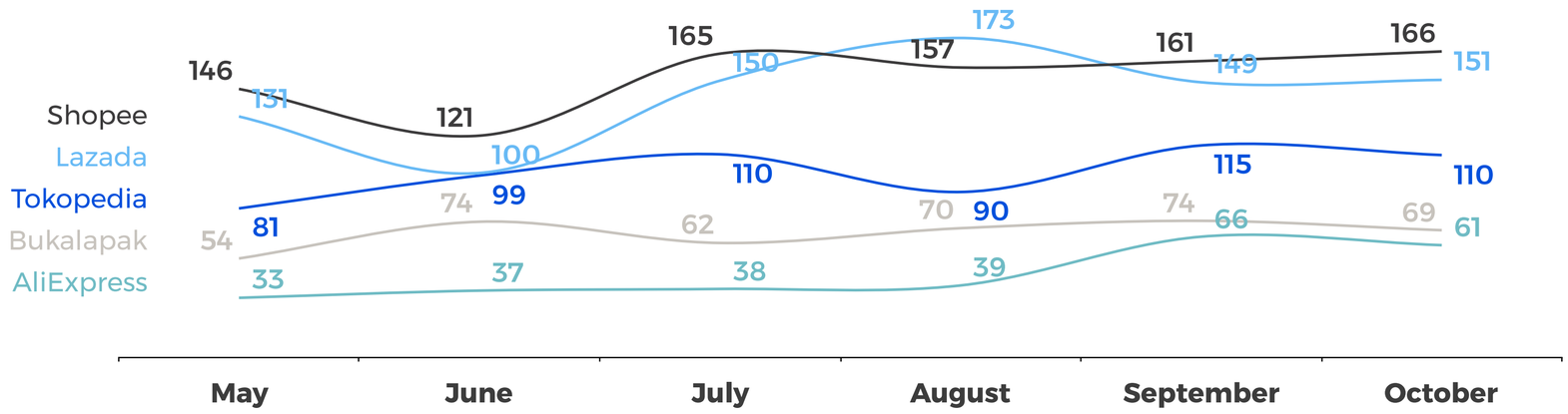
How is the country adopting e-commerce practices?

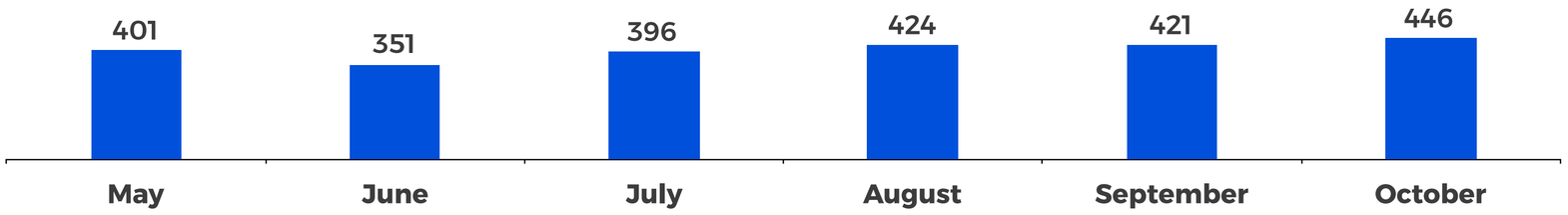
Daily unique users (‘000)

Daily unique users by e-commerce apps



Daily unique users (‘000)

Daily unique users by e-commerce category



Source: Illustrative analysis based on dummy data.

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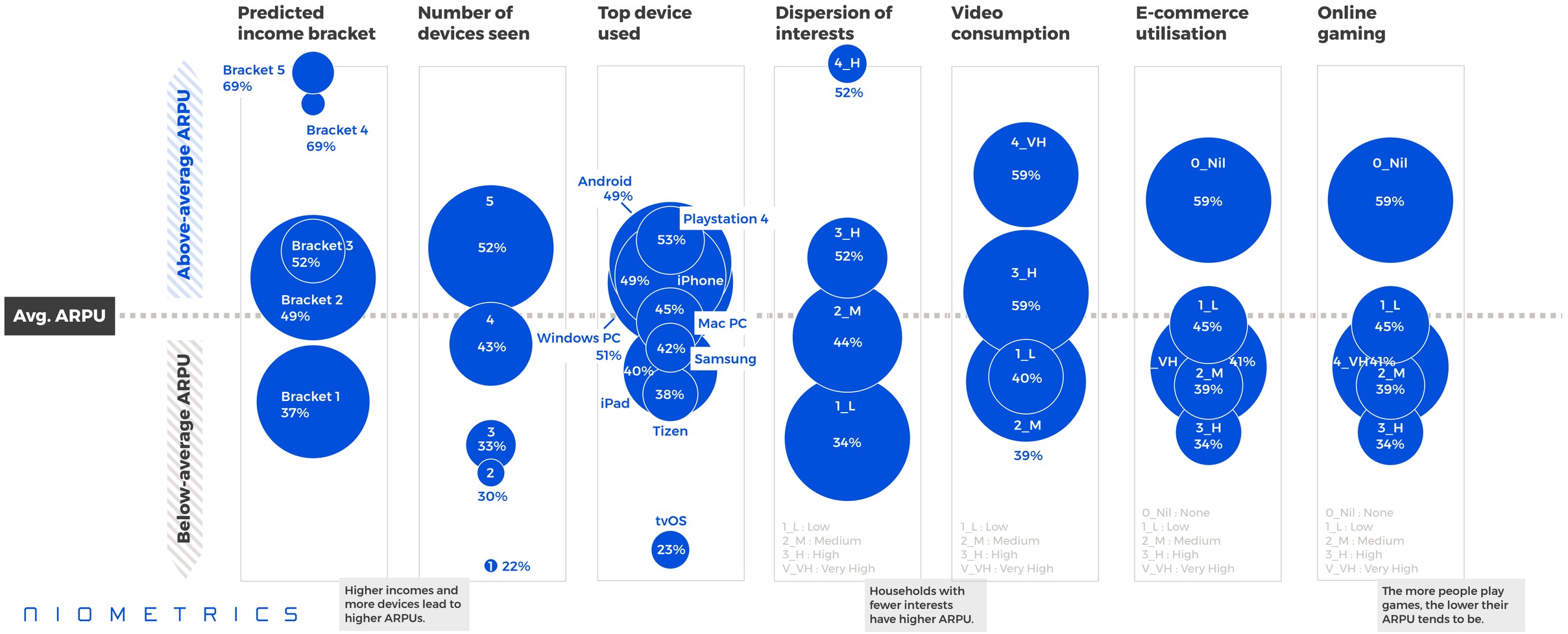
What is the ARPU of each household based on different attributes?

ARPU split by different attributes (bubble sizes = % of households holding that attribute)

Total for country



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And last but not least, when is the most dangerous time of the day to be a Pokémon?

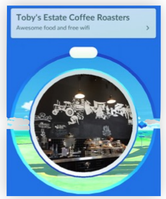
Pokémon captured and Pokéstop visits

15th-16th August 2016 (24 hours)

Note: A Pokémon capture is counted when the Pokémon is captured by the player with a pokeball or pokeball variants (great ball, etc). Unsuccessful pokeball throws are excluded.

9,815,918

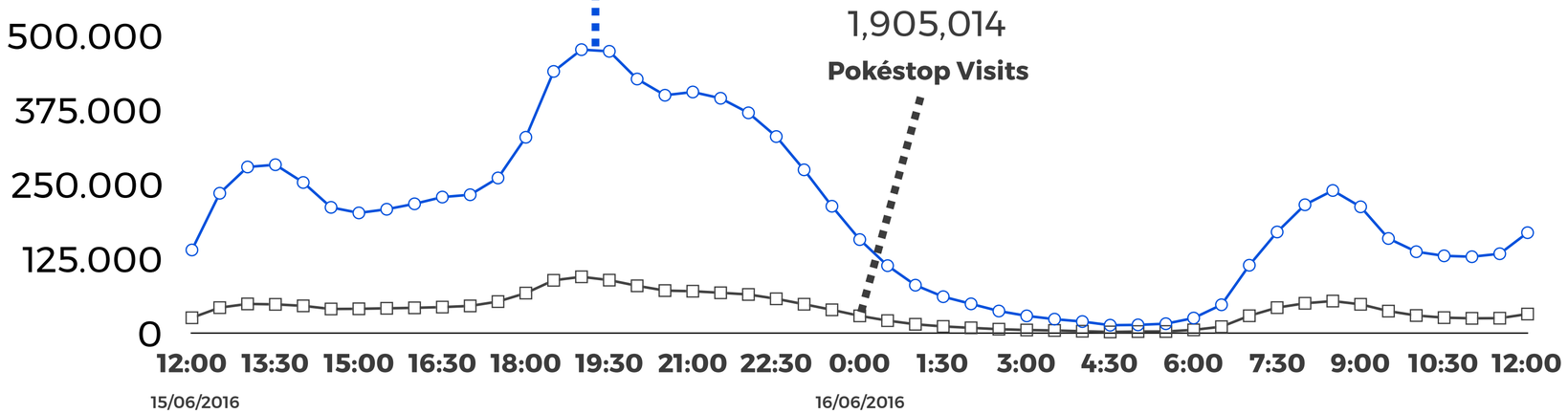
Pokémon Captured



Note: A Pokéstop visit is counted only if the Pokéstop token is spun.

1,905,014

Pokéstop Visits



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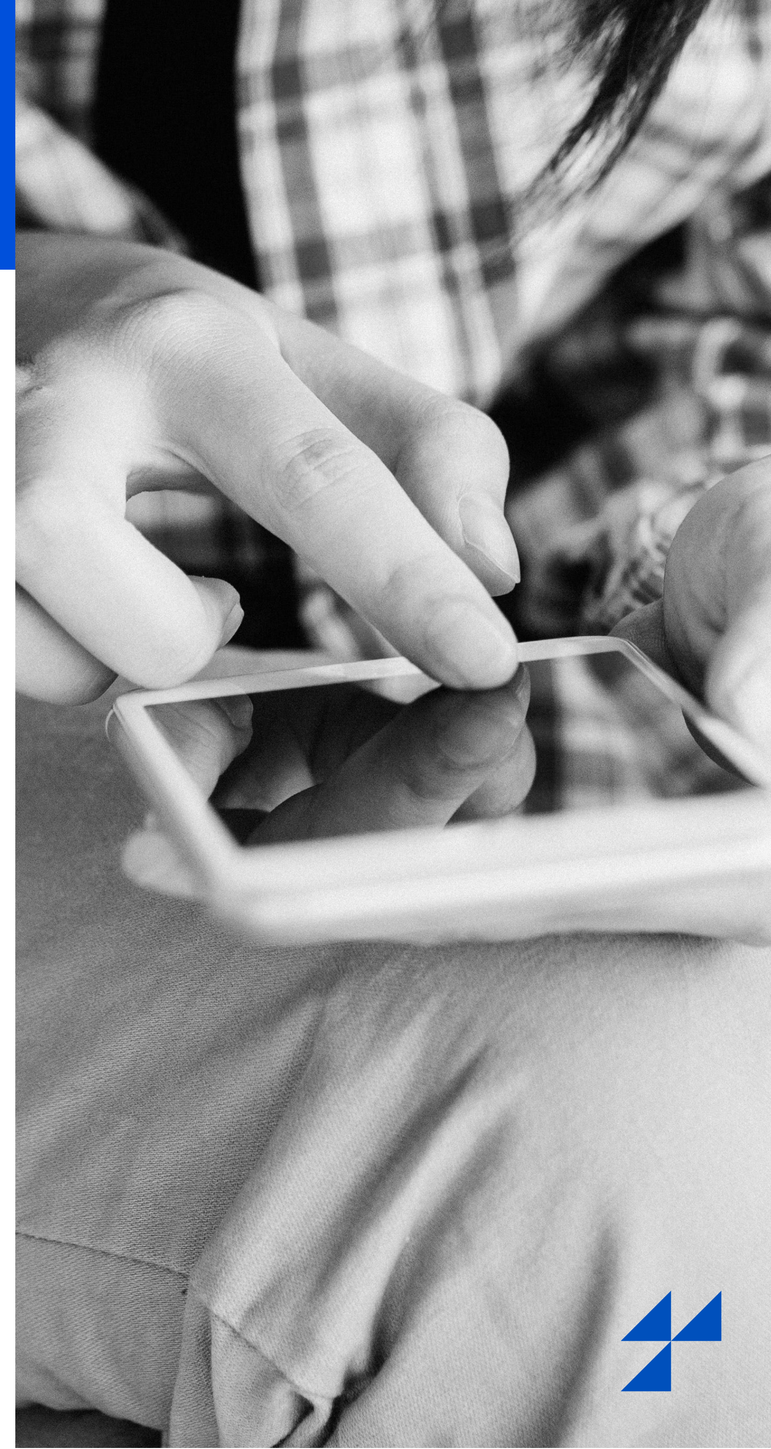
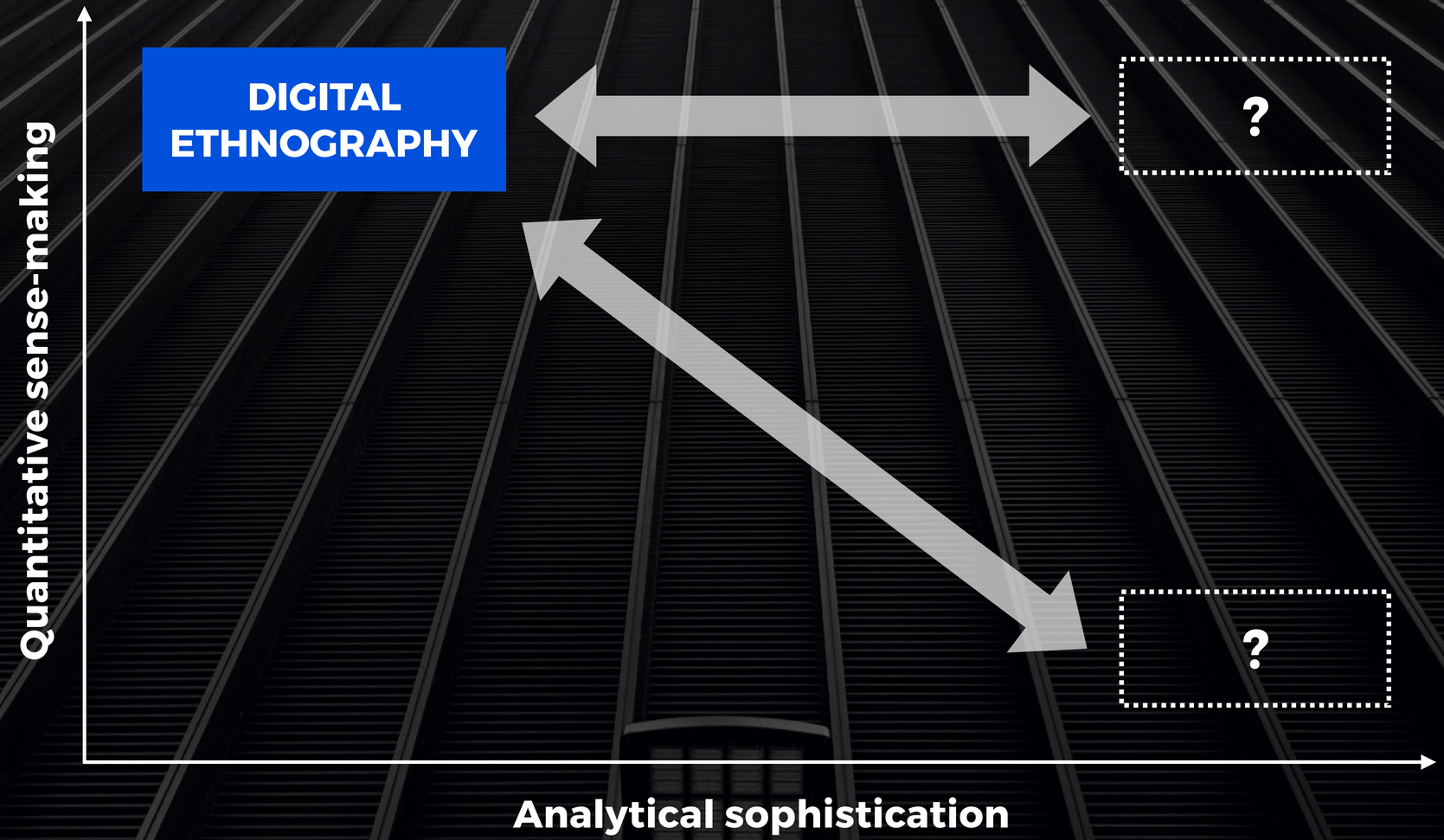


Digital ethnography requires little analytical sophistication but extraordinary quantitative ‘sense-making’.



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As a matter of fact, some data scientists have been perilously neglecting how to just ‘grasp the world’ around them and jumping straight into ‘cool stuff’.

	‘Classic analytics’	Machine-learning or artificial intelligence et al
% of business objectives it addresses	70% (?)	30% (?)
What it depends on	Simple math + ‘scientific mind’	Hard math + libraries
How you master it	Train your brain with real-world cases	Study

I love Kaggle, but there is much more to data science than building hyper-accurate prediction models...

Good 'Kaggling'

- Engineers features guided through real-world hypotheses
- Tests hypotheses on how the world should behave
- Manages to explain the model and why it works
- Converges more slowly to a higher 'score', but learns how to 'think analytically' along the way

Bad 'Kaggling'

- Performs brute force feature engineering without 'a clue'
- Spray and pray
- Delivers total empiricism: proven results, zero theories to explain them
- Turns into a robot building another robot. And we know what robots have been doing to humans lately...


QUESTIONS?

THANK YOU

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