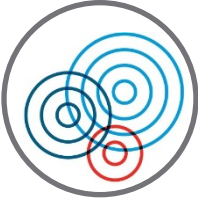
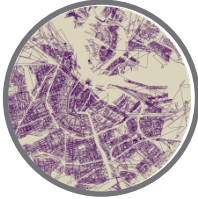


Data Model Products and Added Value

- © Scott Cunningham
- © Delft University of Technology

Together let's use our model, in
the Netherlands, for good.

How the Data Team Works

 <i>Principal Investigator</i> Caroline Nevejan	 <i>Neogeography</i> Jandirk Bulens	 <i>Architect</i> Scott Cunningham
 <i>Front-End Work</i> Lene Boehnke Thu Vu	 <i>Back-End Work</i> Ruben Spruit Mark Verhagen	 <i>Visualization</i> Erik Boertjes

Pinar Sefkatli

There has been a long history of using clustering to measure the pulse of consumers . . .



"[It] brings the country to life in a way that no other book provides."

—Philadelphia Inquirer

THE CLUSTERING OF AMERICA

A VIVID PORTRAIT OF THE
NATION'S 10 NEIGHBORHOOD TYPES—
THEIR VALUES, LIFESTYLES
AND ECONOMIC PRIORITIES





PRIZM

Tapestry Segmentation

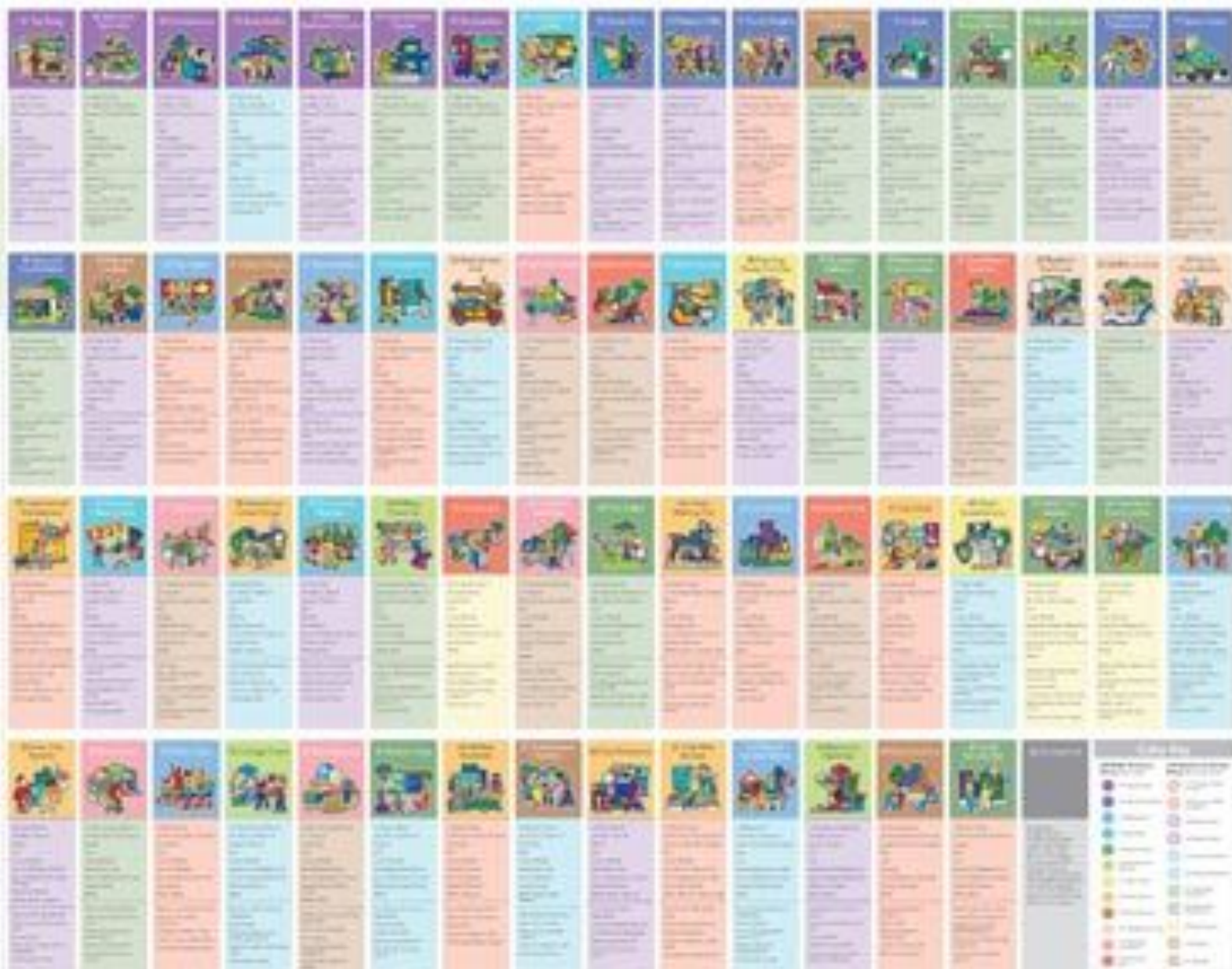
The fabric of America's neighborhoods

What is Tapestry Segmentation?
Tapestry Segmentation is a market research tool that divides the U.S. population into 35 distinct segments based on lifestyle, attitudes, and values. These segments are used to understand and predict consumer behavior, helping businesses tailor their marketing and product offerings to specific groups of people.



Why Use Tapestry Segmentation?
Tapestry Segmentation provides a comprehensive view of the U.S. population, allowing businesses to identify and understand their target audience. It helps in developing effective marketing strategies, improving customer engagement, and increasing sales. The segments are based on lifestyle, attitudes, and values, providing a deeper understanding of consumer behavior.

esri



Low Income Middle Age w/o Kids

In City Startups, young to middle-aged, multi-ethnic singles have settled in neighborhoods filled with cheap apartments and a commercial base of cafés, bars, laundromats, and clubs that cater to twentysomethings. One of the youngest segments in America--with ten times as many college students as the national average--these neighborhoods feature low incomes and high concentrations of African-American and Hispanic households.

Social Group: 10 Micro-City Blues

Lifestage Group: 03 Striving Singles



SnapShot

Neighborhood Demographics

Household Demographics

Lifestyles

Media

Premium

2016 Statistics

US Households: 1,572,745 (1.29%)

Median Household Income: \$25,378

Lifestyle & Media Traits

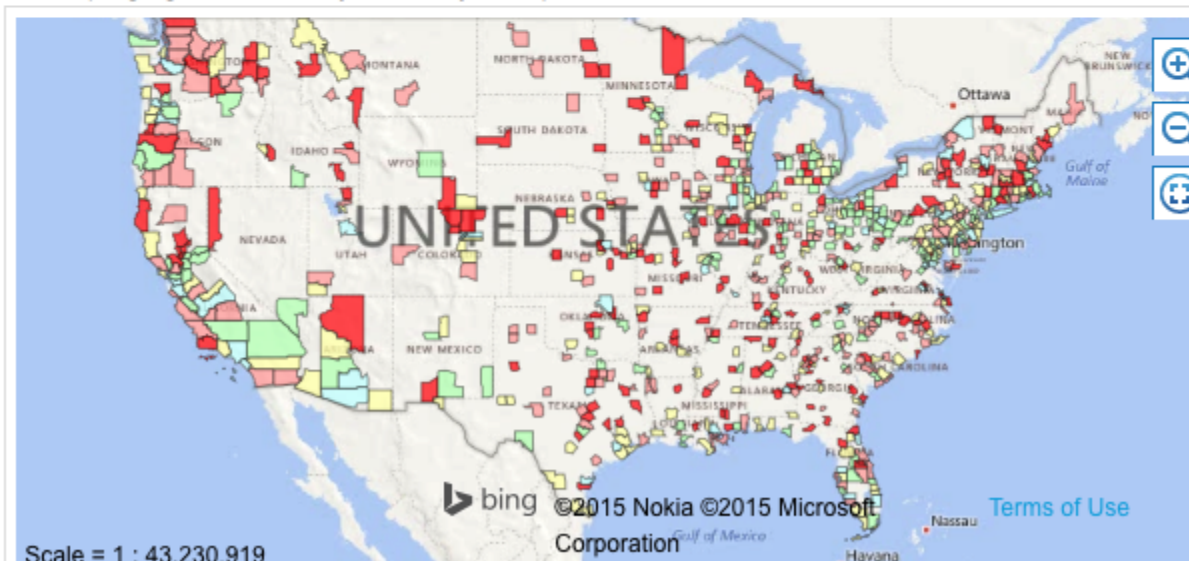
- Shop at Express
- Vacation at casinos
- Read PC Gamer
- Watch talk shows
- Leases vehicles

Demographics Traits

- **Urbanicity:** Second City
- **Income:** Low Income
- **Income Producing Assets:** Low
- **Age Ranges:** Age <55

US by County

This map highlights each County where City Startups are found.



Top 5 Counties

Legend

VICTORIA'S SECRET



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the season's sexiest styles
pages 2-9

**\$19.50
ESSENTIAL
TEES**

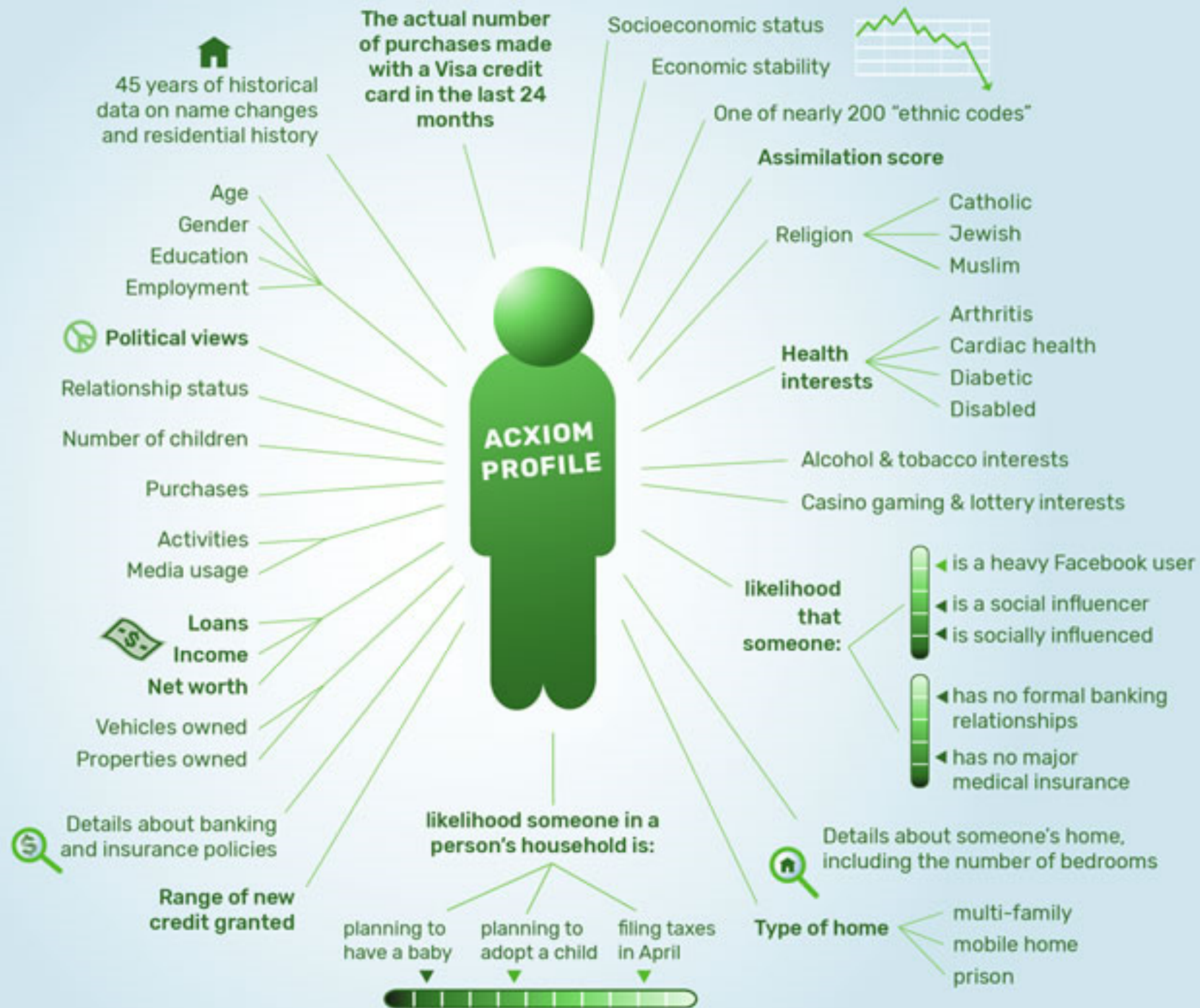
pages 64-65

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shipping

on orders of \$100

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details, page 2



Segmentation is now a controversial part of political life as well.



Data-driven behavior change



Tweets
484

Following
805

Followers
7,700

Likes
61

Cambridge Analytica ✓

@CamAnalytica

Big Data. Behavioral Microtargeting.
Political Campaign Support. Digital
Support.

 [cambridgeanalytica.org](https://www.cambridgeanalytica.org)

Tweets

Tweets & replies

Media



Cambridge Analytica ✓ @CamAnalytica · Jun 29

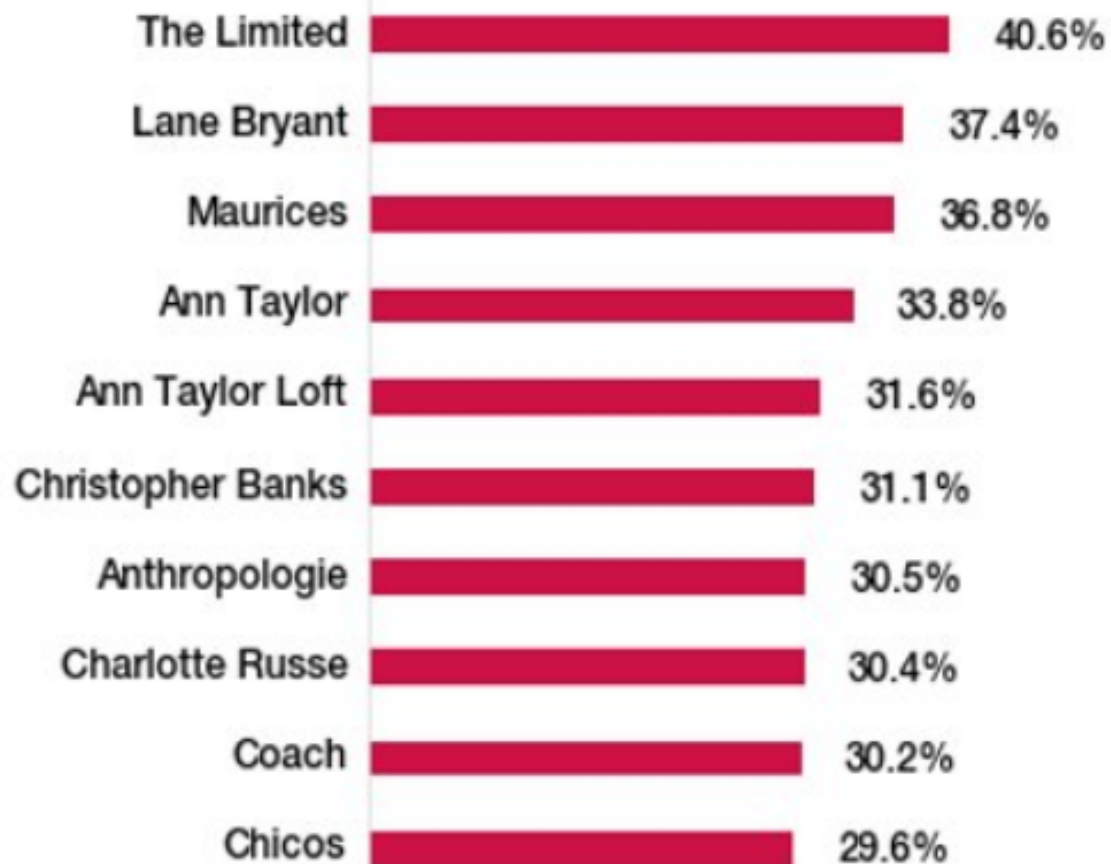
#TBT to @m_schweickert speaking at @Cannes_Lions on data-driven creative in advertising last week. ow.ly/71K430d3xN4





Cambridge Analytica  @CamAnalytica · Jun 28

Our research shows that 40.6% of [@TheLimited](#)'s customer base are moms.
#CAdata



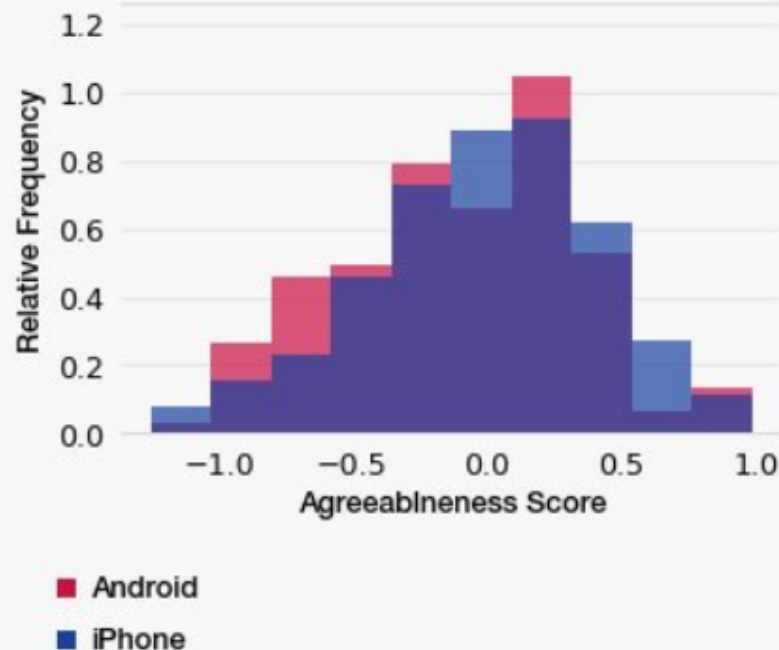


Cambridge Analytica

@CamAnalytica

Follow

According to our research, there is a trend for **#iPhone** users to have a higher agreeableness than **#Android** owners **#CAdata**.



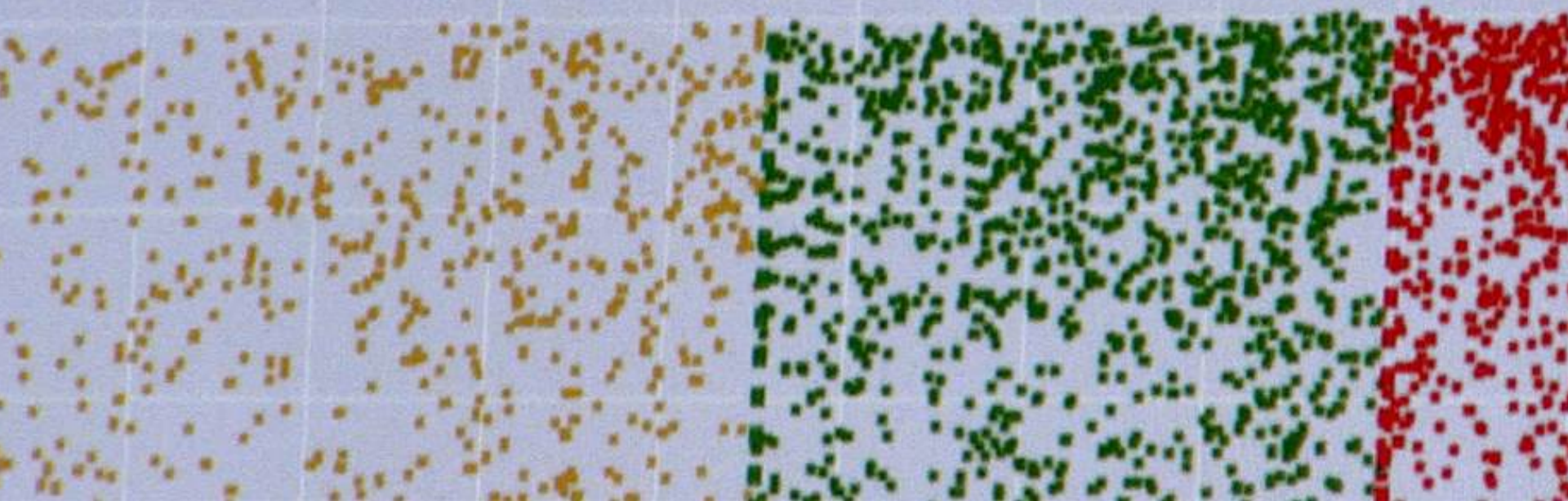


[redacted]s with Likelihood to vote in primaries of > 20%, Likely Evangelicals

- not selected
- Likely Supporters
- Turnout Targets
- Persuasion Targets
- Extra TLC

Persuasion Targets

Likely



Rather than merchandize,
polarize and fragment we can
build safer, more cohesive
communities.

Segmentation is powerful,
effective and widely used.

Segmentation

- ⊙ Allows data fusion
- ⊙ Dispels the myth of the average citizen
- ⊙ Enables privacy preserving measures
- ⊙ Permits more accountability
- ⊙ Reflects how real citizens are living
- ⊙ Surfaces emerging political issues

Endogeneity

Rhythm

Segmentation

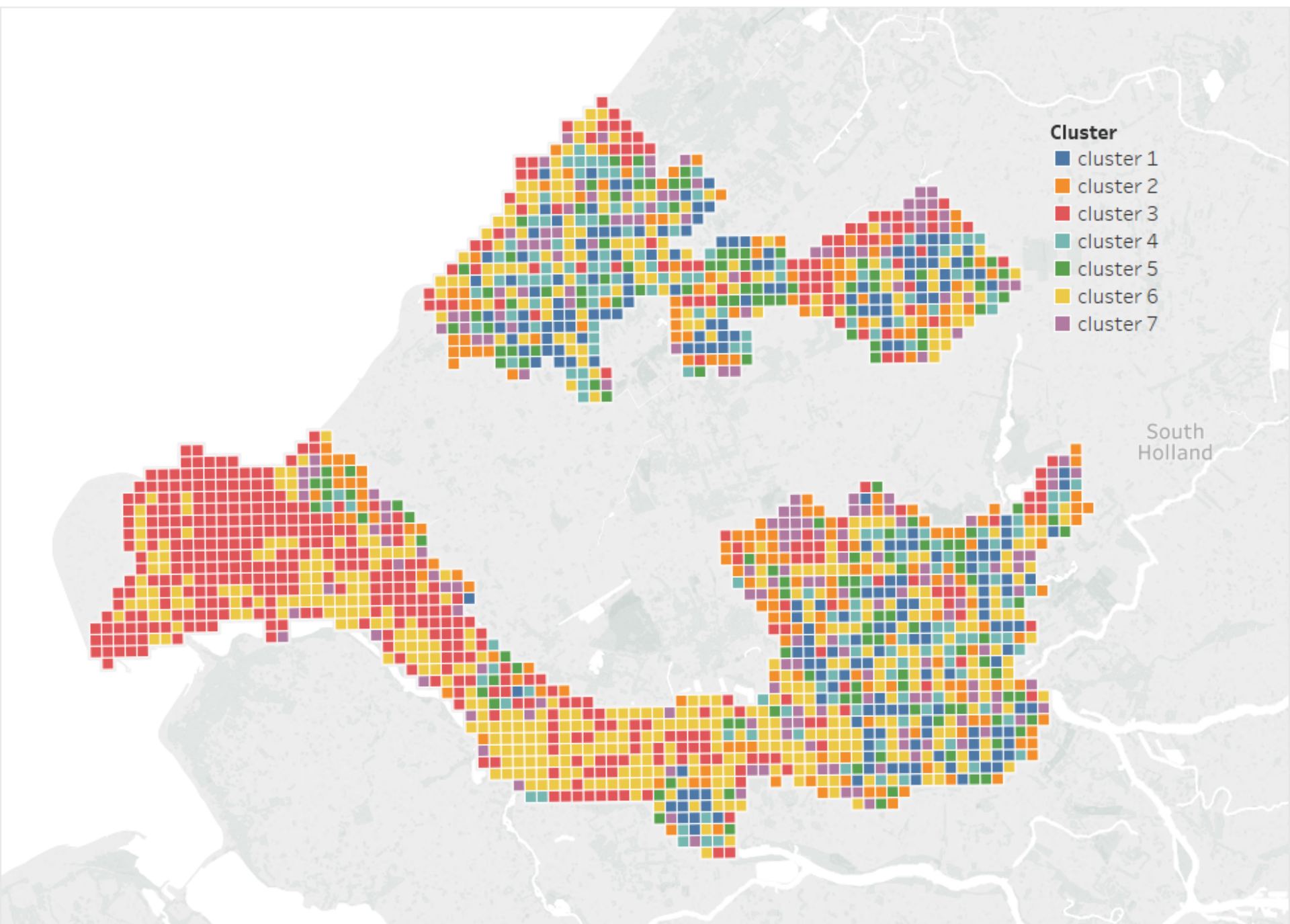
Rhythm

The City Rhythm Model

- ⦿ Produces clusters
- ⦿ Shows districts
- ⦿ Generates rhythm
- ⦿ Makes projections
- ⦿ Finds effective interventions

Learning across Space

Learning across Time



Synchronic

Diachronic



How does the City Rhythm model
compare with the
Veiligheidsmonitor?

How does the City Rhythm model
compare with the
Leefbaarheidsmonitor?

Use of the *Leefbaarheidsmonitor*

- ⦿ Start the discussion about which rhythms are best for cities and citizens
- ⦿ Show the distribution of leefbaarheid by cluster and state
- ⦿ Show the proportion of most and least liveable districts

Models not Reports

Endogeneous not Exogeneous

Next Steps in Modeling

- ⦿ Expanding the source data
- ⦿ Exploring the metaverse
- ⦿ Understanding the computational complexity
- ⦿ Delivering the best segmentation possible
- ⦿ Interpreting the results
- ⦿ Harvesting the value of the model

Main Points

- Team Needed to Capture Value
- Power of Citizen Segmentation
- Rhythm in the Model
- Capacity for Model-Based Learning

Modelling and visualization work supports the creation of rhythm-based interventions in cities.

Wrap up: Model Products and Added Value

Summarizing Scott's presentation

- Segmentation can be powerful tool for policy making
 - Allows learning and interactivity across city experts

Difference to existing monitors

- Prediction potential
- Less time consuming
- Less costly than surveys
- Integration of policy interventions in the future

How can safety be incorporated?

- Include in model
- Compare neighborhoods with different score on Leefbaarometer (safety)

Visualization goals within the project

- Eric

Discussion on Model Products and Added Value

Exemplary questions

- What do existing monitors miss until now?
- Is there a clear added value?
- What information is necessary for developing policy interventions?
- How do you want to learn from other cities/neighborhoods?

Workshop design September

In progress

- 1 day – 6 cities
- Main goal: Compare rhythms across cities and neighborhoods and learn from each other
 - Compare clusters
 - Compare states
 - Predict future states and learn from other timelines (see below)
 - Compare grids with similar and different safety indexes
- Over the course of the workshop draw timeline per city, three levels:
1) Policy level, 2) Own beliefs, 3) Model outputs
- How can you visualize rhythm based on data?
- How can you further use these findings for policy making?
- Next steps?

Discussion: workshop design

Your input

- What do you expect from the workshop?
 - What should be the goal?
 - Regarding a tool
- What should be the main take-away?
- Date (second week of September)
- Who should be there?