



# The Geodemographics of Use and Engagement with the Internet

Alex Singleton

*Department of Geography and Planning*

[www.cdrc.ac.uk](http://www.cdrc.ac.uk)

[www.alex-singleton.com](http://www.alex-singleton.com)

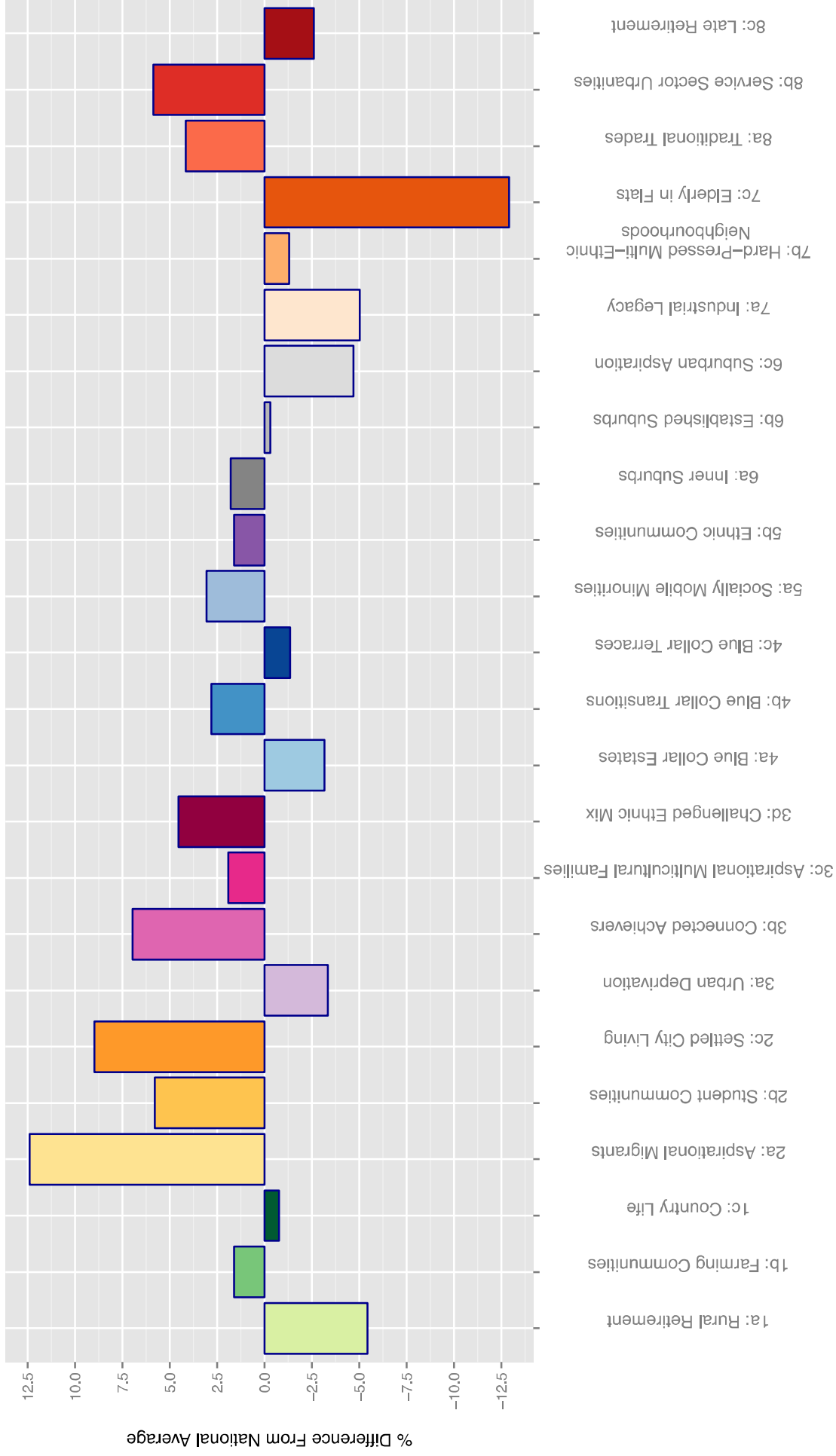
[@alexsingleton](https://twitter.com/alexsingleton)



E·S·R·C  
ECONOMIC  
& SOCIAL  
RESEARCH  
COUNCIL



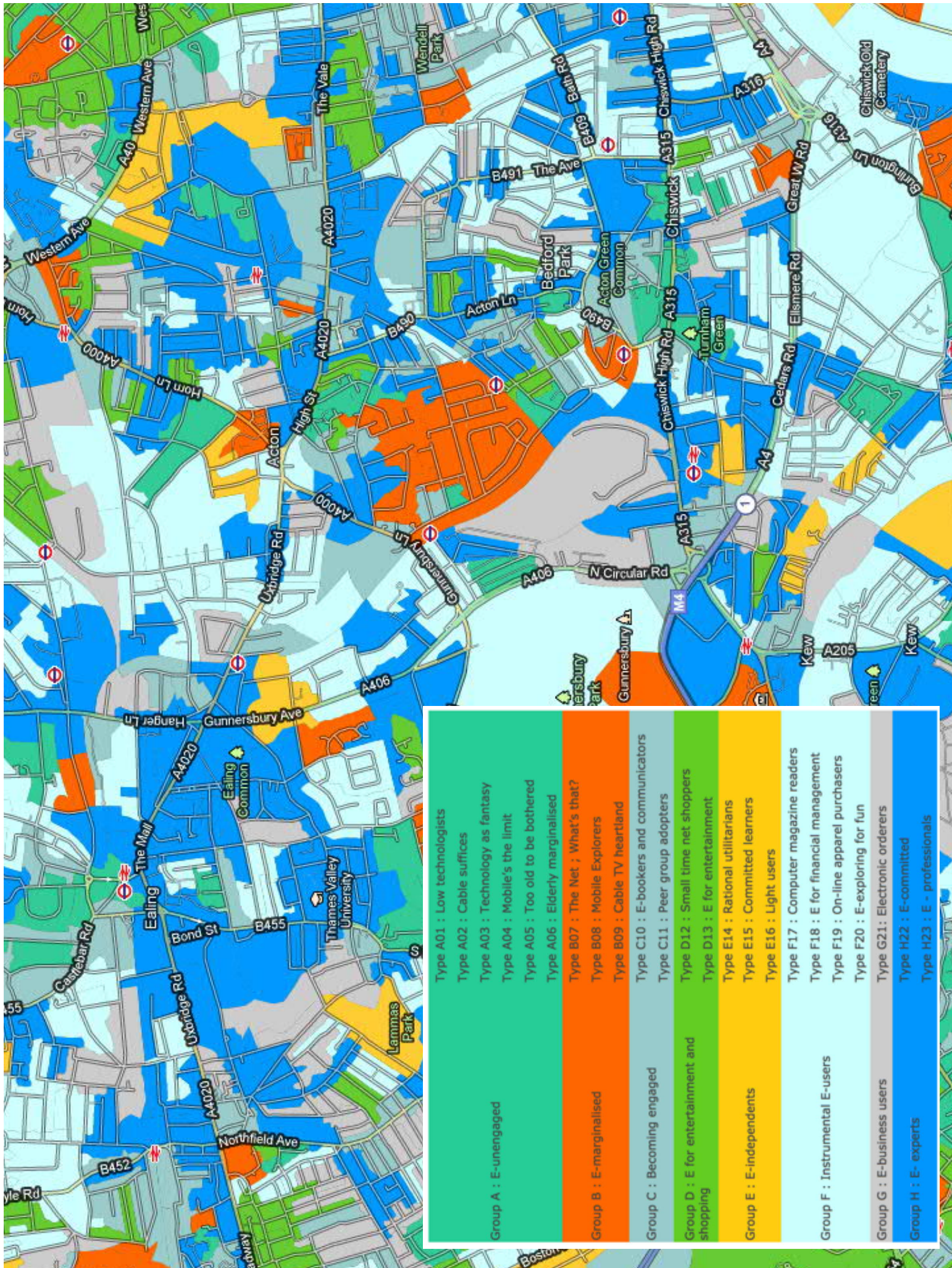
An ESRC Data  
Investment



Output Area Classification 2011

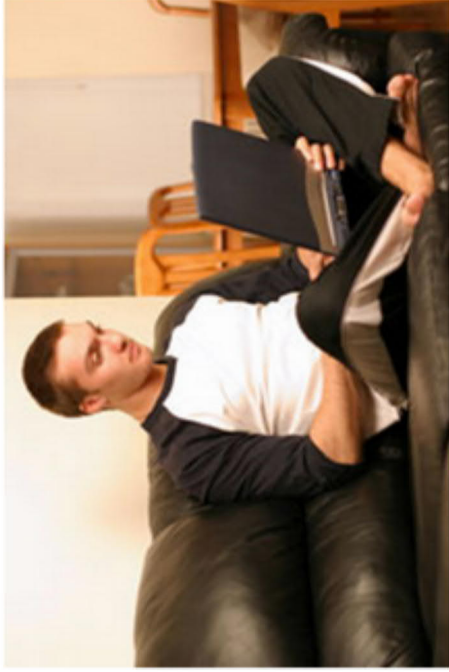
# Previous Work

- The “e-Society”
- 1990s – Technology Use – “Haves” & “Have-nots”
- Digital Divide
- By 2007 things were radically different
- Usage & Engagement increasingly more complex
- Created a classification which consisted of 8 Groups & 23 Types. – Links to Postcode.



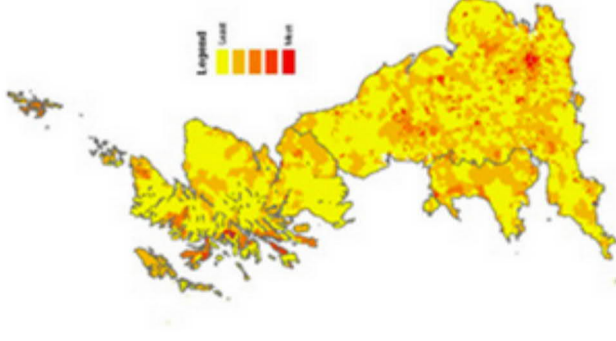
Group A : E-unengaged	Type A01 : Low technologists Type A02 : Cable suffices Type A03 : Technology as fantasy Type A04 : Mobile's the limit Type A05 : Too old to be bothered Type A06 : Elderly marginalised
Group B : E-marginalised	Type B07 : The Net ; What's that? Type B08 : Mobile Explorers Type B09 : Cable TV heartland
Group C : Becoming engaged	Type C10 : E-bookers and communicators Type C11 : Peer group adopters
Group D : E for entertainment and shopping	Type D12 : Small time net shoppers Type D13 : E for entertainment
Group E : E-independents	Type E14 : Rational utilitarians Type E15 : Committed learners Type E16 : Light users
Group F : Instrumental E-users	Type F17 : Computer magazine readers Type F18 : E for financial management Type F19 : On-line apparel purchasers Type F20 : E-exploring for fun
Group G : E-business users	Type G21 : Electronic orderers
Group H : E-experts	Type H22 : E-committed Type H23 : E-professionals

## Group C : Becoming engaged



Members of this Group often acquire their competence in the use of information technology at work, since many of them are young people working in junior white collar occupations in modern offices. They are keen to become more expert in the use of new technologies and to use them for new applications. Many spend time browsing the Internet but without necessarily making many transactions.

Many members of this Group work in large cities and may be starting a life in a house that they own, typically in one of the cheaper inner suburbs. Their use of the Internet at work may be a practice that their employers may be keen to control or reduce.



Click the map for a larger version. If you would like more about how these maps were created please help page by clicking [here].

### Who else is like us?

The following table shows the top 10 most similar postcode districts to "London Se6 (SE6)" in terms of their technology use. Clicking the links will display a map of their location.

Rank	District	Town
1	PO1	Portsmouth
2	PR1	Preston
3	TW4	Hounslow
4	M19	Manchester
5	SE7	London Se7
6	BS5	Bristol
7	OL1	Oldham
8	E16	London E16
9	BD7	Bradford
10	LS5	Leeds

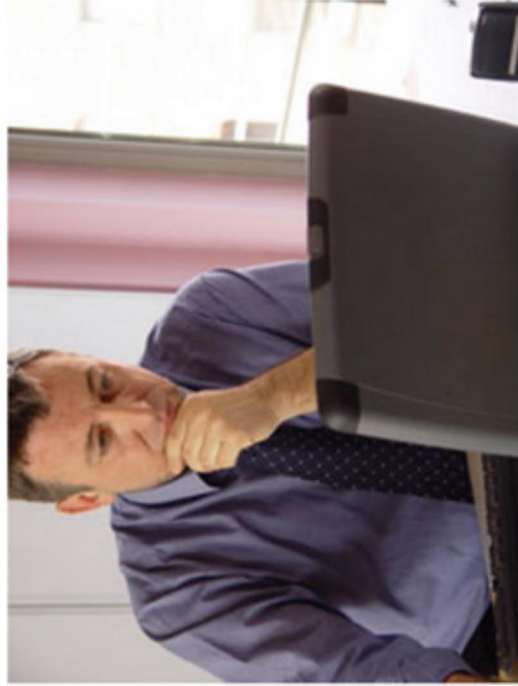
If you would like to know more about how these ranks were created please see our help page by clicking [here].

**Do you agree with the E-Society classification for your postcode?** If not, then please let us know what you think it should be by clicking this [link].

## Type C10 : E-bookers and communicators

This Type is a particularly active user of email, receiving and sending messages both at work and while on the move. The Type includes a large number of young, single people, who are particularly interested in the media of communications – they are heavy users of mobile phones but also frequent switchers to and adopters of new mobile technologies. Although ownership rates of personal computers are only average, many individuals use computers to order music and fashion on line. Downloading of music is a particularly common activity. But this Type does not make use of the latest technical features of information technology and is unlikely to have professional involvement in the IT industry.

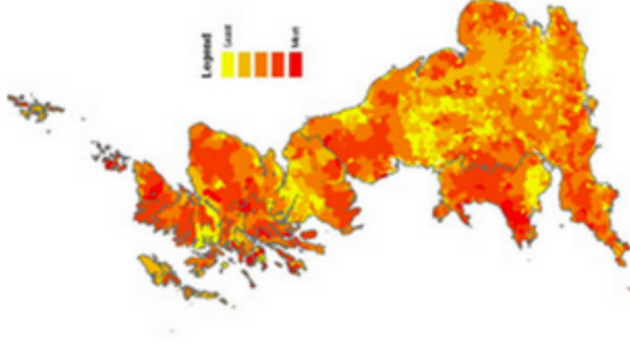
## Group E : E-independent



This Group tends to take a rational and considered view of electronic communications and technologies. These people are not interested in mobile phones, texting or the Internet as lifestyle accessories; they do not feature as major topics of conversation within the social networks to which they belong and they do not provide a significant focus for leisure activity. However people are reasonably well equipped and use the Internet to search for information, to buy products and to undertake transactions where there are obvious efficiency benefits.

### Type E16 : Light users

This Type contains many people who have access to electronic technologies but who are not very heavy users of them. Mostly in late middle age, these people do not view technology as a leisure activity and are not influenced by fashions or the need to keep up with peer groups. This Type, though it does have access to the internet, tends not to use it to purchase games, fashion wear, videos or holidays, preferring to deal with organisations directly. However the Type does purchase flowers over the Internet.



Click the map for a larger version. If you would like more about how these maps were created please see our help page by clicking [\[here\]](#).

### Who else is like us?

The following table shows the top 10 most similar postcode districts to "Liverpool (L18)" in terms of their technology use. Clicking the links will display a map of their location.

Rank	District	Town
1	EH12	Edinburgh
2	SA2	Swansea
3	GL52	Cheltenham
4	IG7	Chigwell
5	BR2	Keston
6	CT2	Canterbury
7	BR3	Beckenham
8	EH41	Haddington
9	DG1	Dumfries
10	EH4	Edinburgh

If you would like to know more about how these ranks were created please see our help page by clicking [\[here\]](#).

Do you agree with the E-Society classification for your postcode? If not, then please let us know what you think it should be by clicking this [\[link\]](#).

bbc.co.uk Home TV Radio Talks Where I Live A-Z Index Search

**BBC NEWS** International version About the versions | Low graphics | Help | Contact us

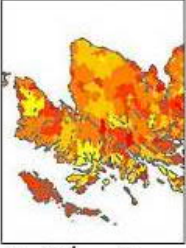
News Front Page World UK England Northern Ireland Scotland Wales Business politics Health Education Science/Nature Technology Entertainment

Last Updated: Tuesday, 6 August 2006, 13:38 GMT 14:38 UK

E-mail this to a friend Printable version

### Britain's digital tribes revealed

By Jonathan Fildes  
Science and technology reporter, BBC News



Households in Britain can be classified into 23 "e-types" depending on their access to technology, say researchers.

E-types include mobile explorers, the e-committed and rational utilitarians.

The researchers, from University College London (UCL), say the profiles could be used to inform future policies on access to digital technology.

Every postcode in Britain has been assigned a classification which people can check online to see if they agree with the researcher's analysis.

"What really emerges is that almost all of the types have some interaction with technology," said Professor Paul Longley, who led the study at UCL. "In a sense we are all digital now"

**Digital divide**

RELATED BBC SITES  
SPORT  
WEATHER  
CBBC NEWSROUND  
ON THIS DAY  
EDITORS' BLOG

**SEE ALSO**

- UK project to deliver rural net 15 May 06 | Science/Nature
- Insight into UK's digital habits 27 Apr 06 | Technology
- Mobiles aid drive for development 16 Feb 06 | Technology
- Half of Wales 'has no web access' 26 Jan 06 | Wales

**RELATED INTERNET LINKS**

- UCL
- ESRC
- Check your postcode (may be slow due to heavy traffic)
- Esperian

The BBC is not responsible for the content of external internet sites

**TOP TECHNOLOGY STORIES**

- Britain's digital tribes revealed
- Photo messaging is 'on the rise'
- Sony taps instant message crowd
- RSS | What is RSS?

**MOST POPULAR STORIES NOW**

MOST E-MAILED MOST READ

Deaths confirmed in M25



### neighbours are?

h box and clicking "GO", our use in your neighbourhood and

team at UCL as an outcome of



- About the e-society
- What are the groups?
- Feedback

Enter a Postcode...

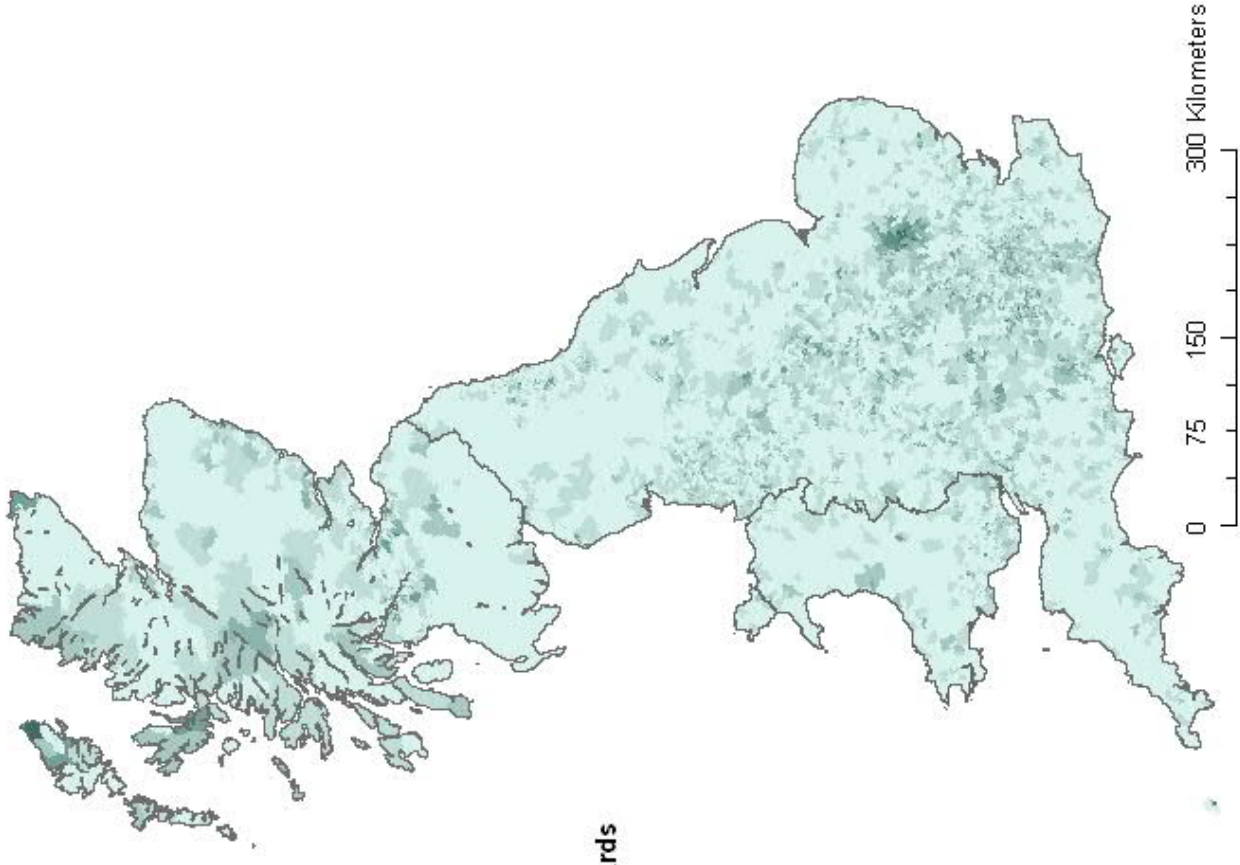
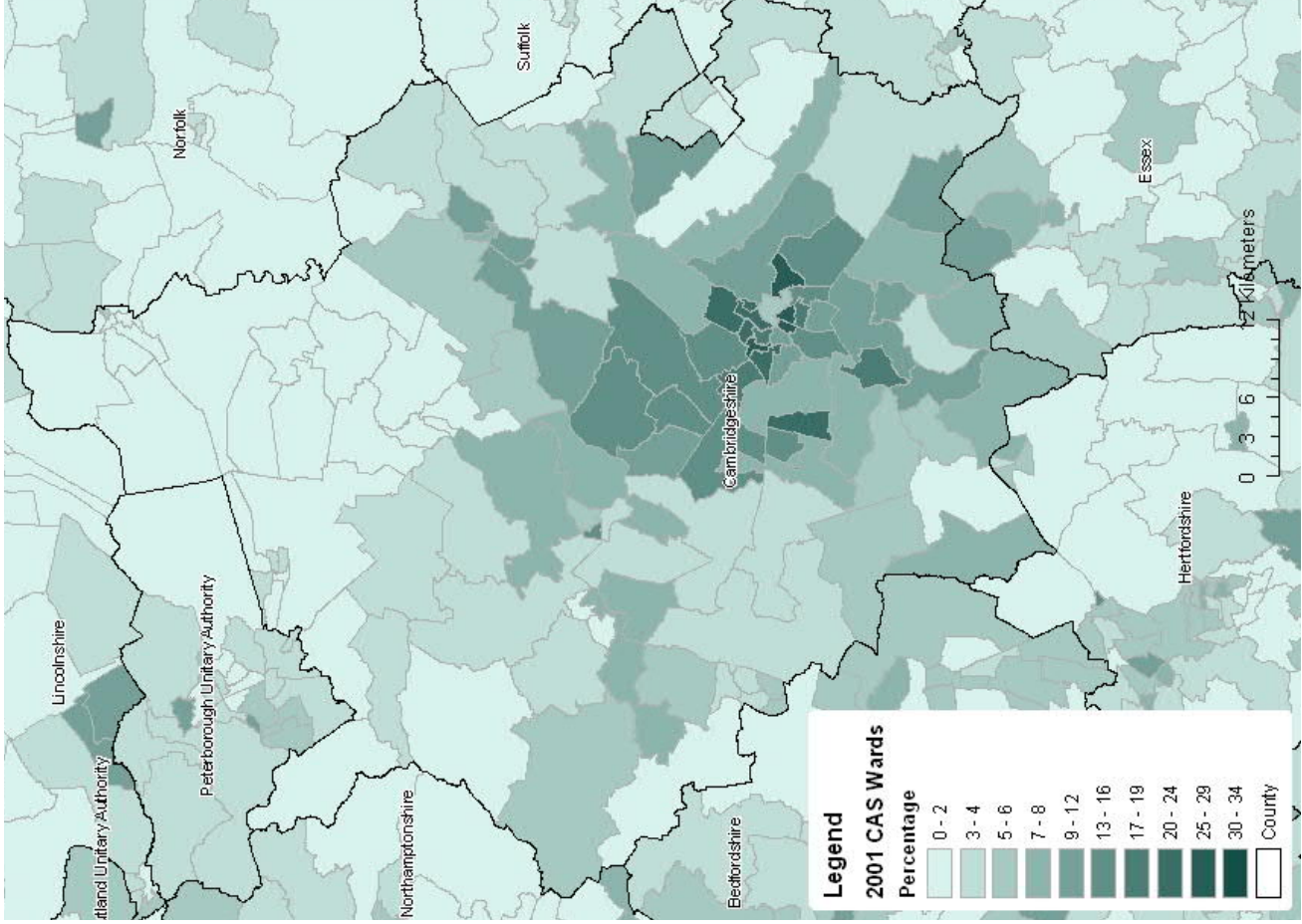
e.g. NW6 1CN

GO

Before clicking "go" please read our data and data collection policy [here]

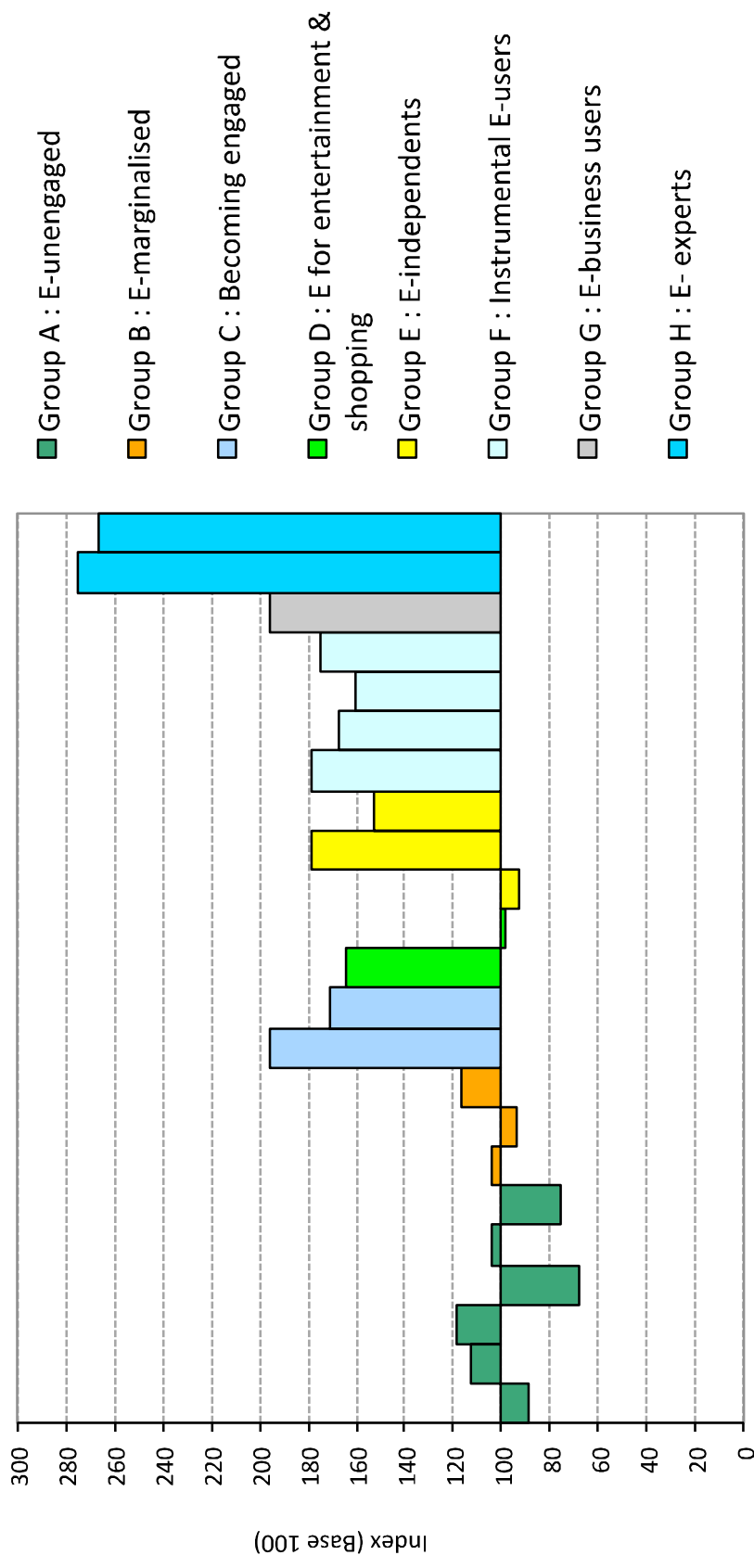
The E-Society profiler tool is solely for private, academic and public policy use only. Commercial use of these data is strictly forbidden. The E-Society profiler is not currently available under any commercial licence.

e-Society Profiler

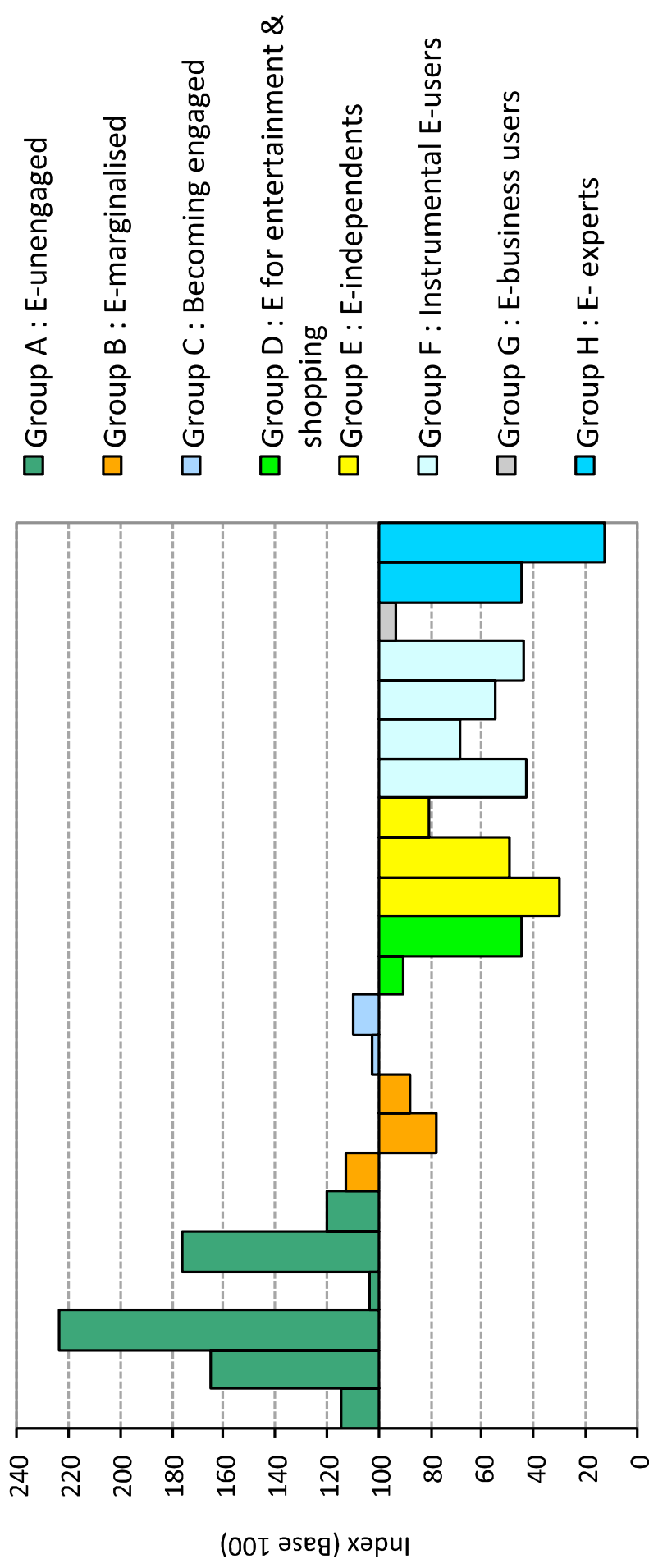




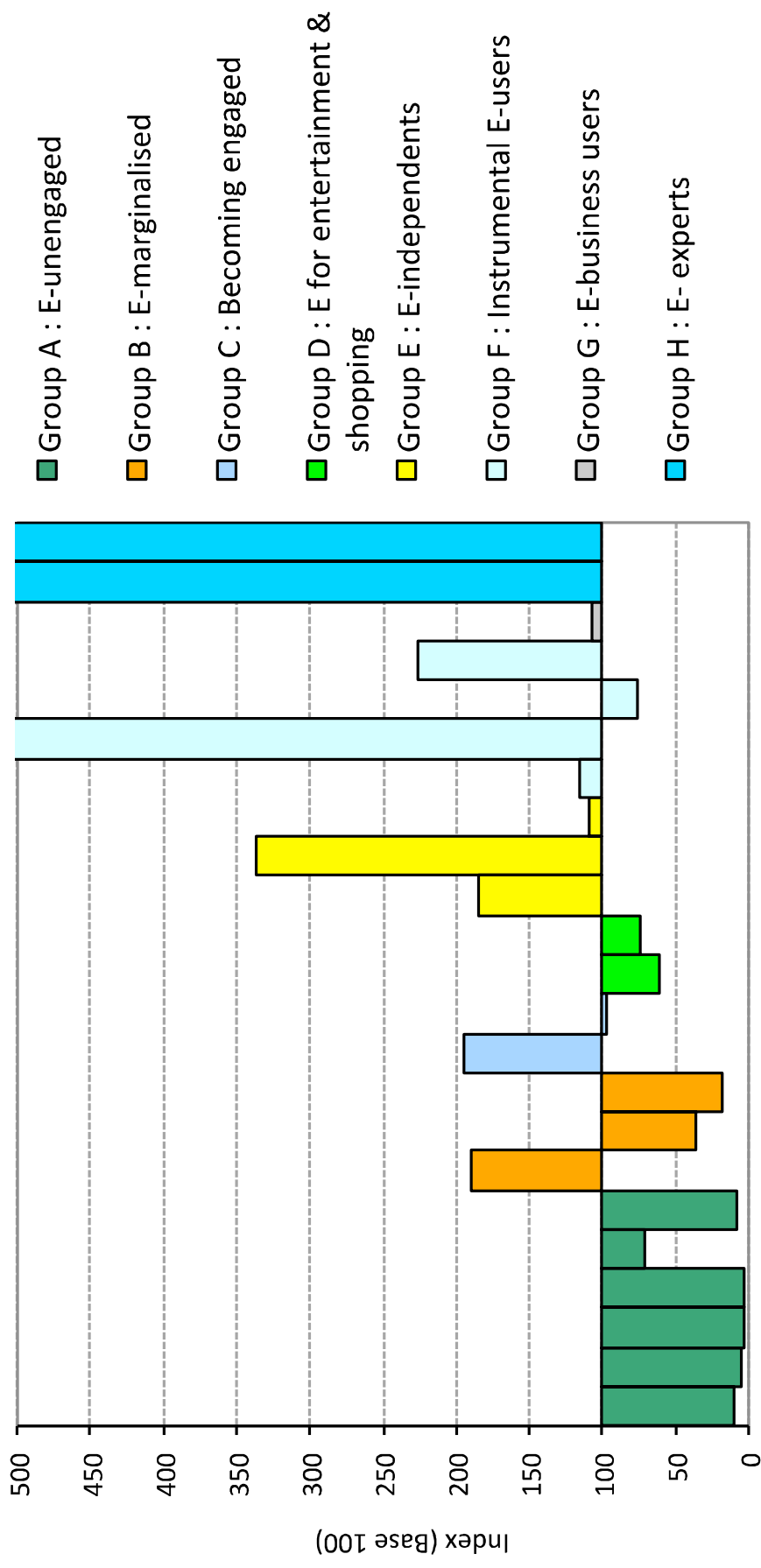
# Postcode Search Propensity by e-Society Types



# Feedback Origin



# Feedback Destination

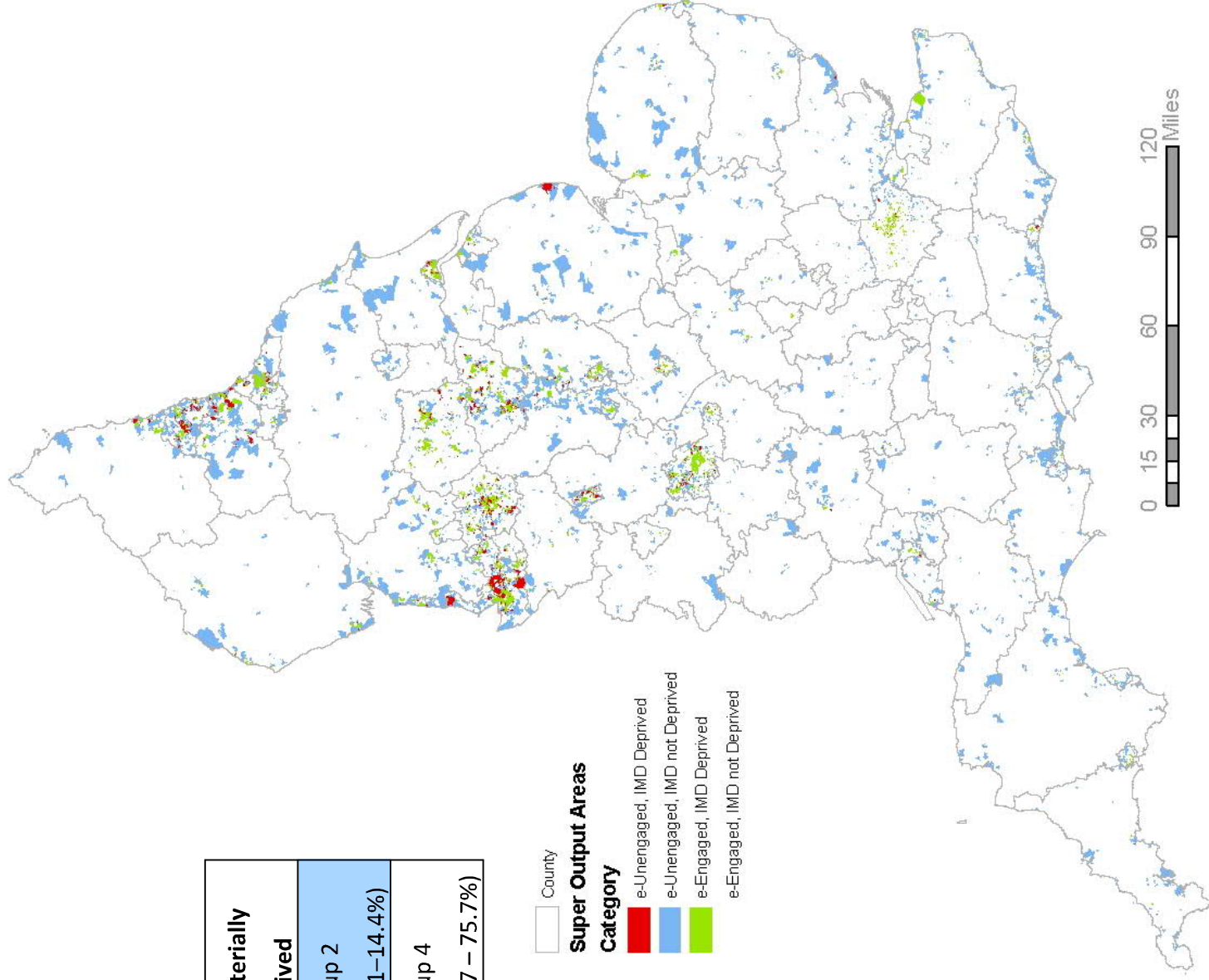


# IMD

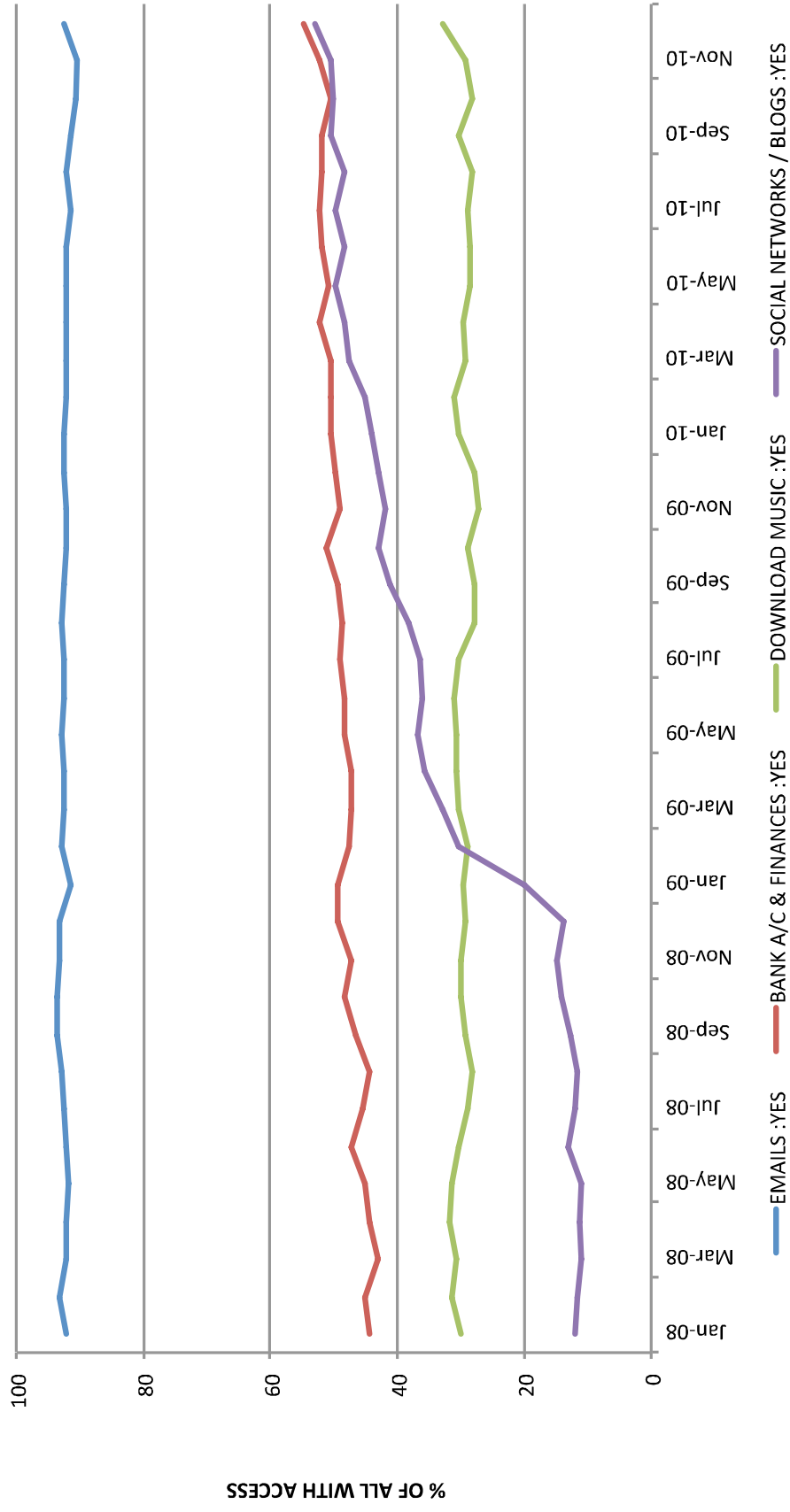
	Materially deprived	Not materially deprived
Not e-engaged	Group 1 (1,150,926 – 2.3%)	Group 2 (7,065,101 – 14.4%)
e-engaged	Group 3 (3,748,429 – 7.6%)	Group 4 (37,174,487 – 75.7%)

**Not e-engaged:** (GROUP A: E-UNENGAGED; Type A01 : Low technologists; Type A02 : Cable suffices; Type A03 : Technology as fantasy; Type A04 : Mobile's the limit; Type A05 : Too old to be bothered; Type A06 : Elderly marginalised.

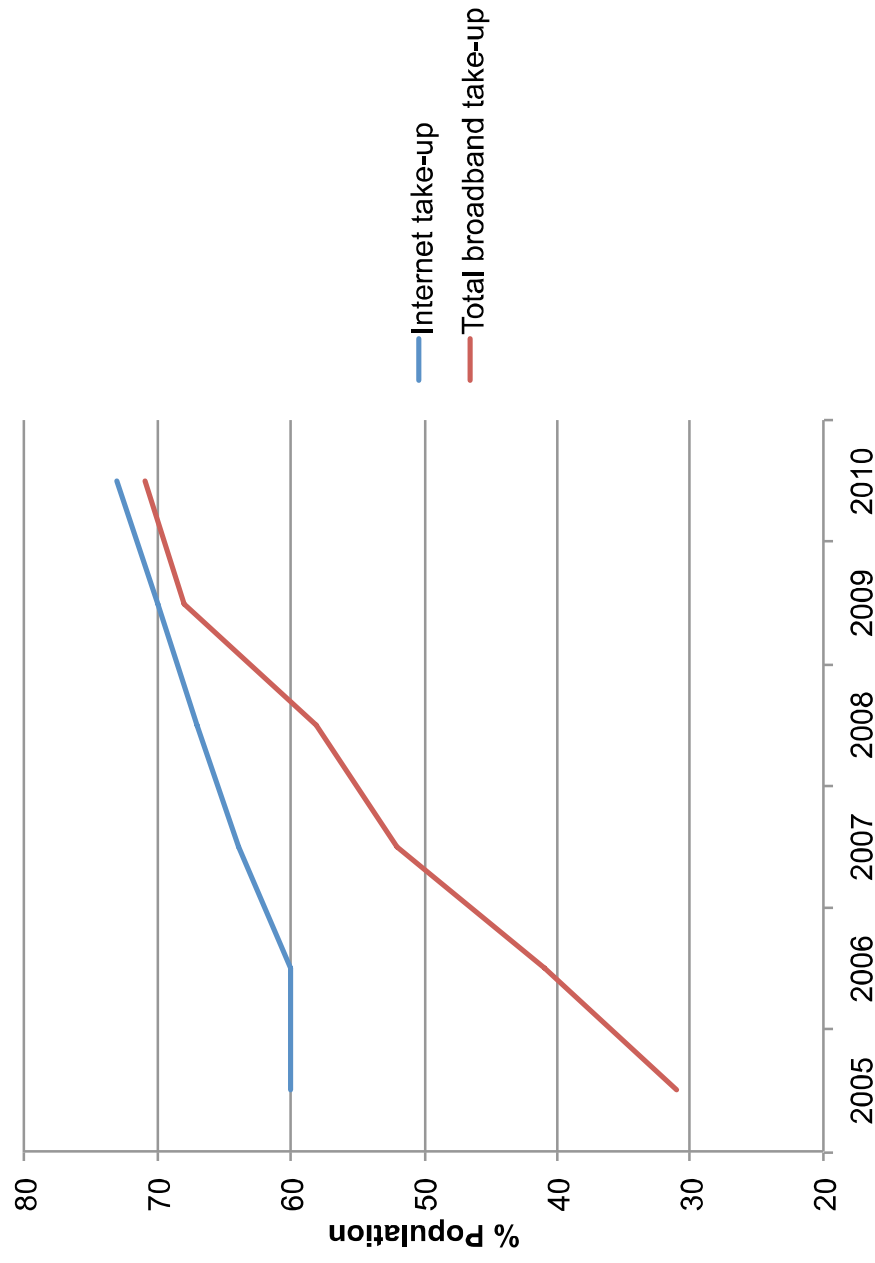
**Materially Deprived – 10<sup>th</sup> Decile**



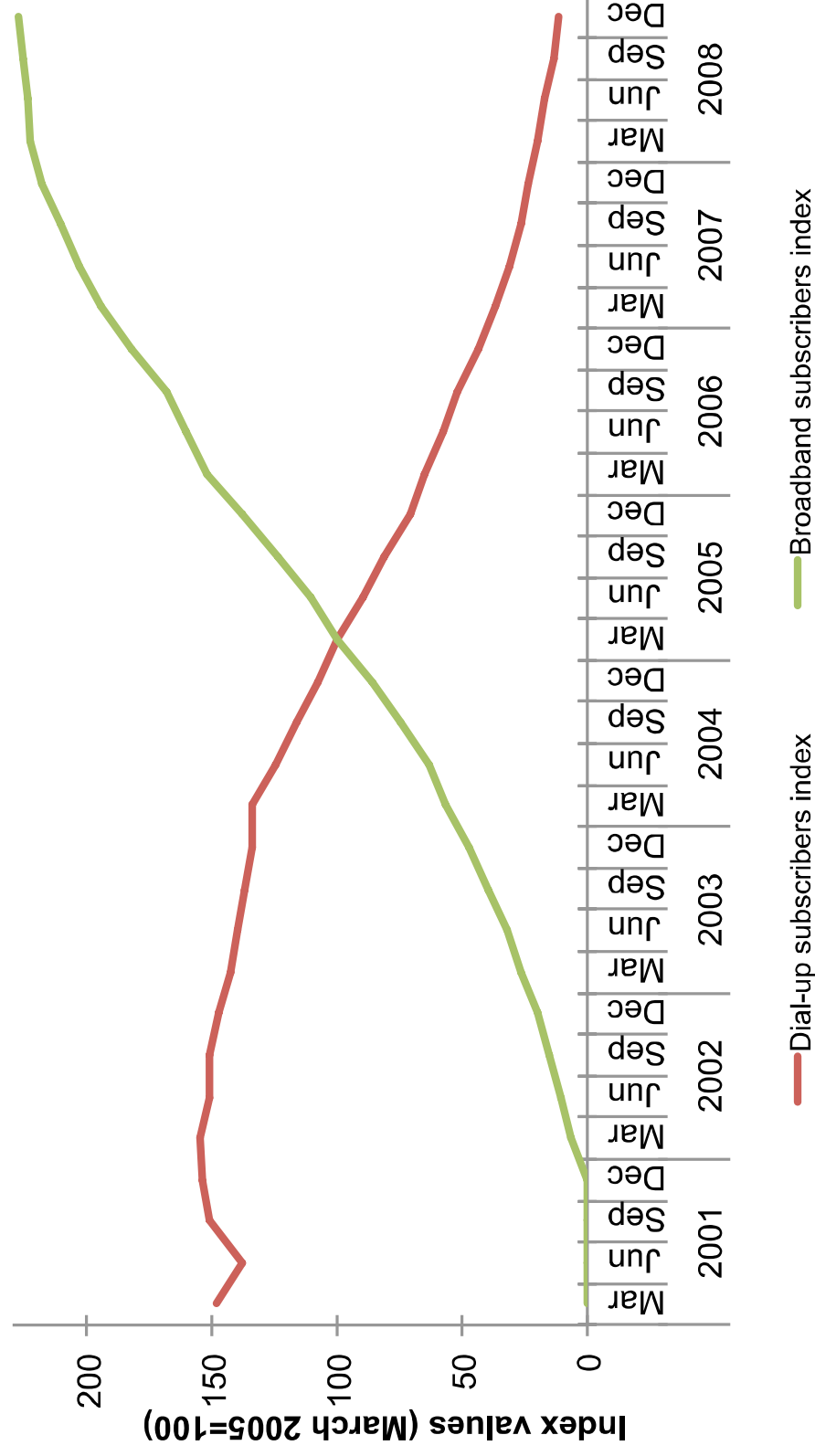
# Behaviour change



# Infrastructure change



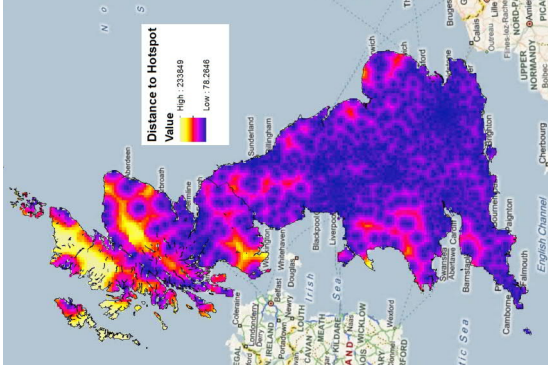
# Infrastructure change



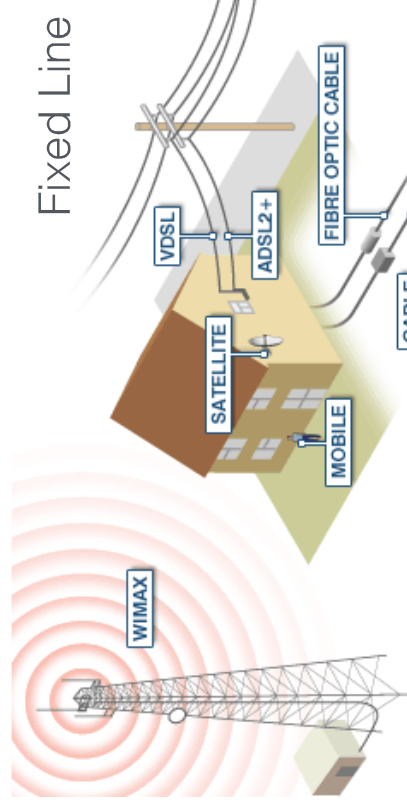
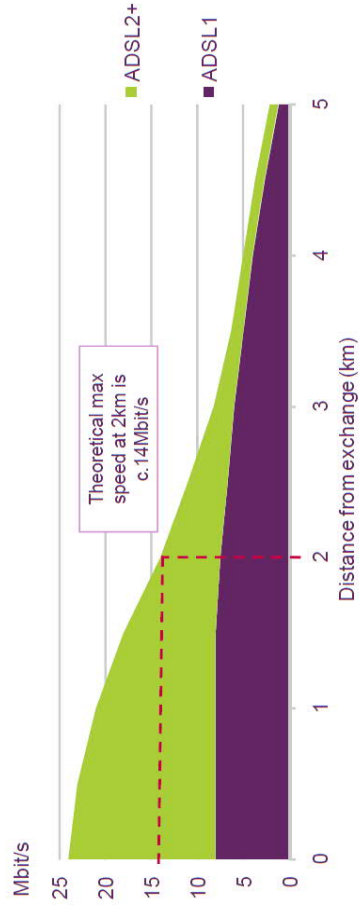
# New Infrastructure



Mobile Hotspots

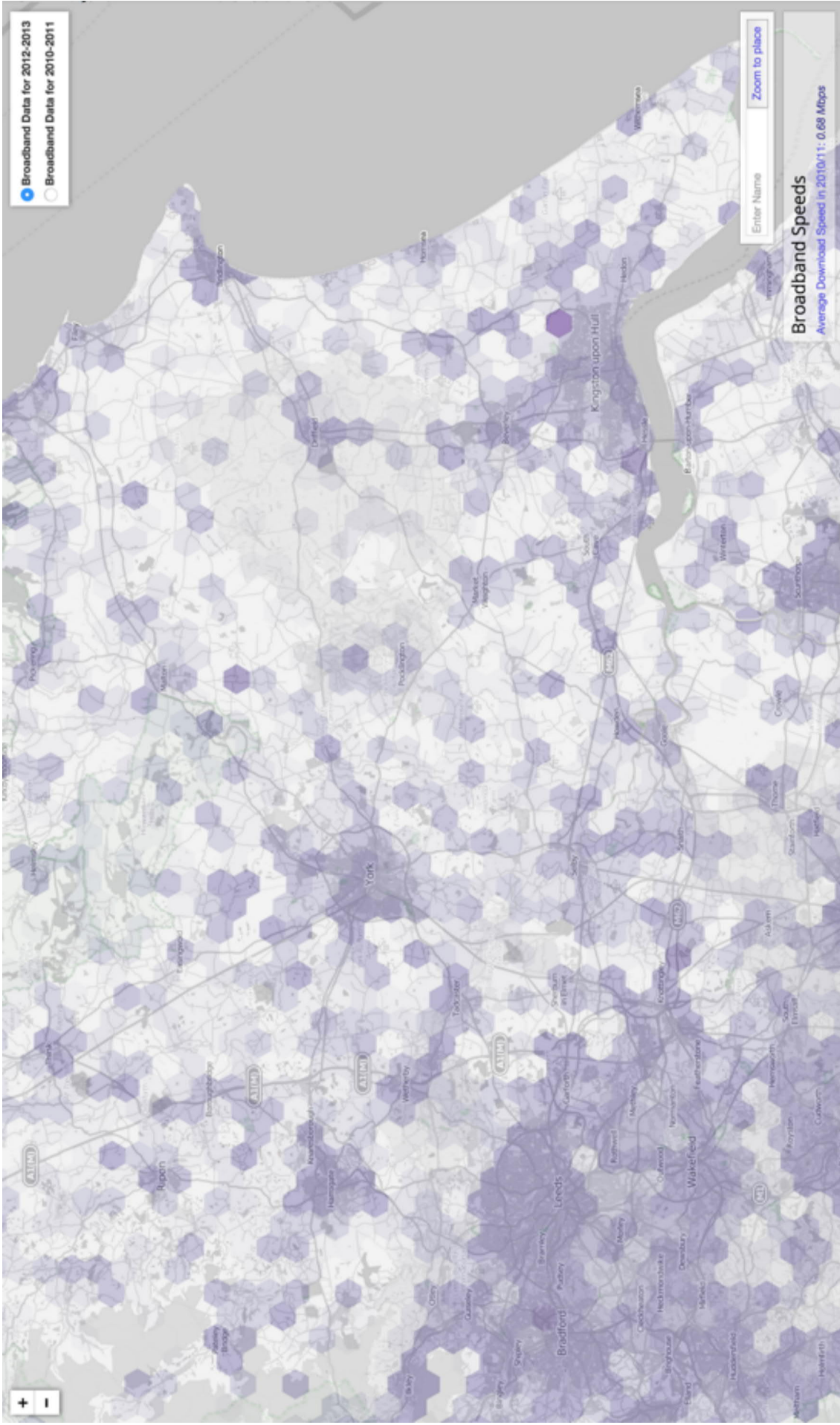


3G / 4G



Fixed Line





7.6m records

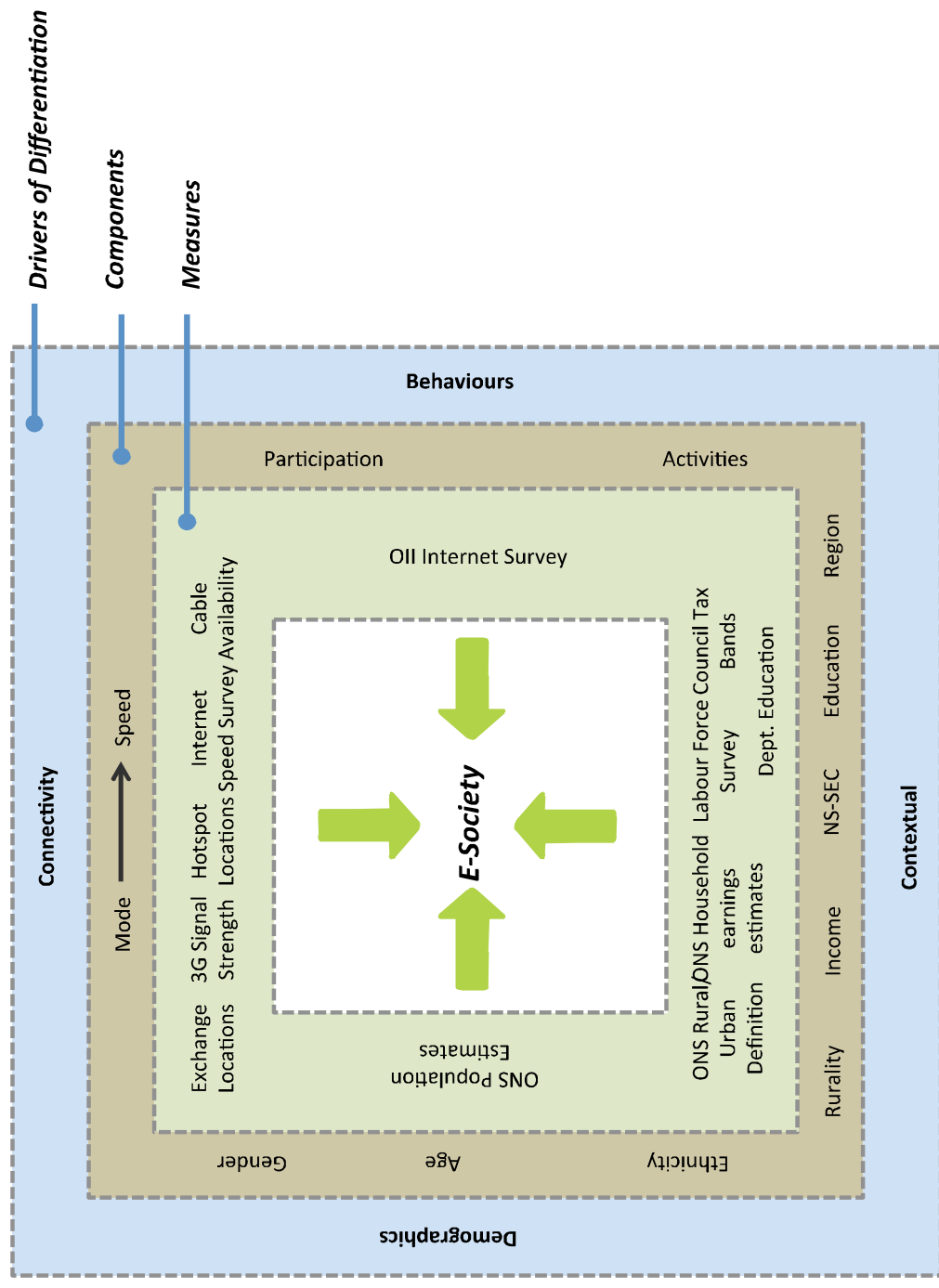


UNIVERSITY OF  
**LIVERPOOL**

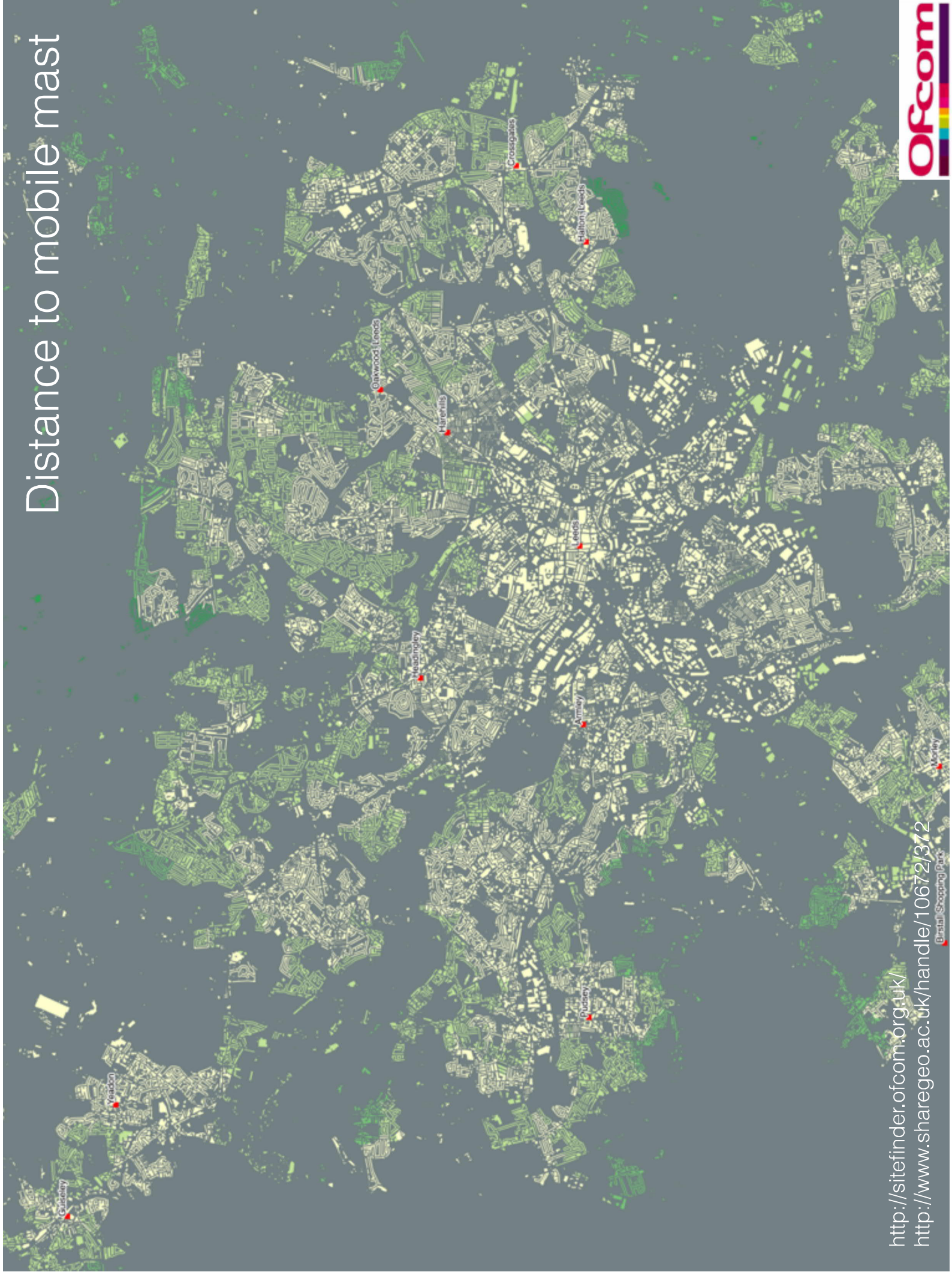


<http://atlas.geographicdatascience.com/broadband/full/>

# New Internet User Classification



# Distance to mobile mast

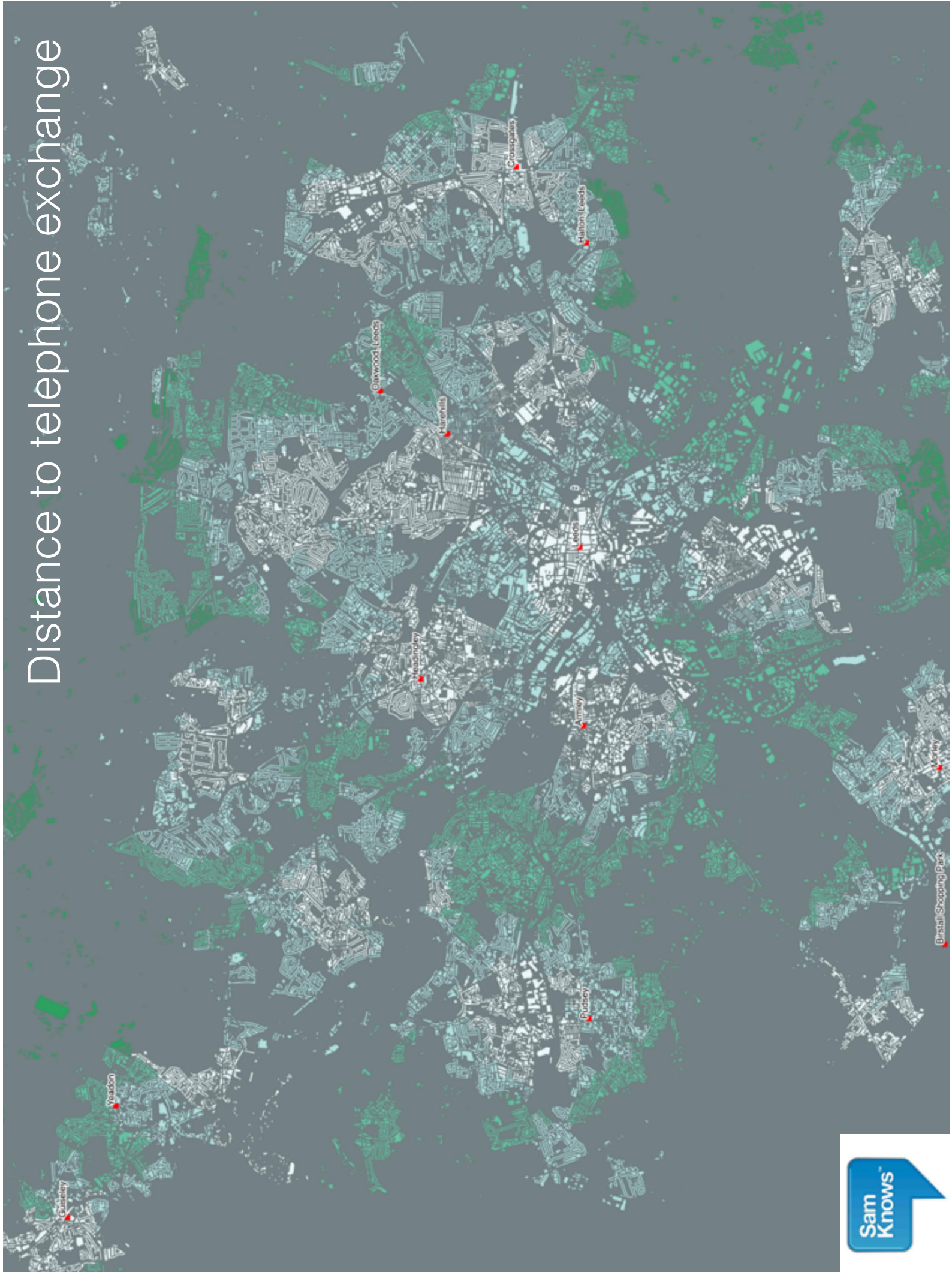


<http://sitefinder.ofcom.org.uk/>

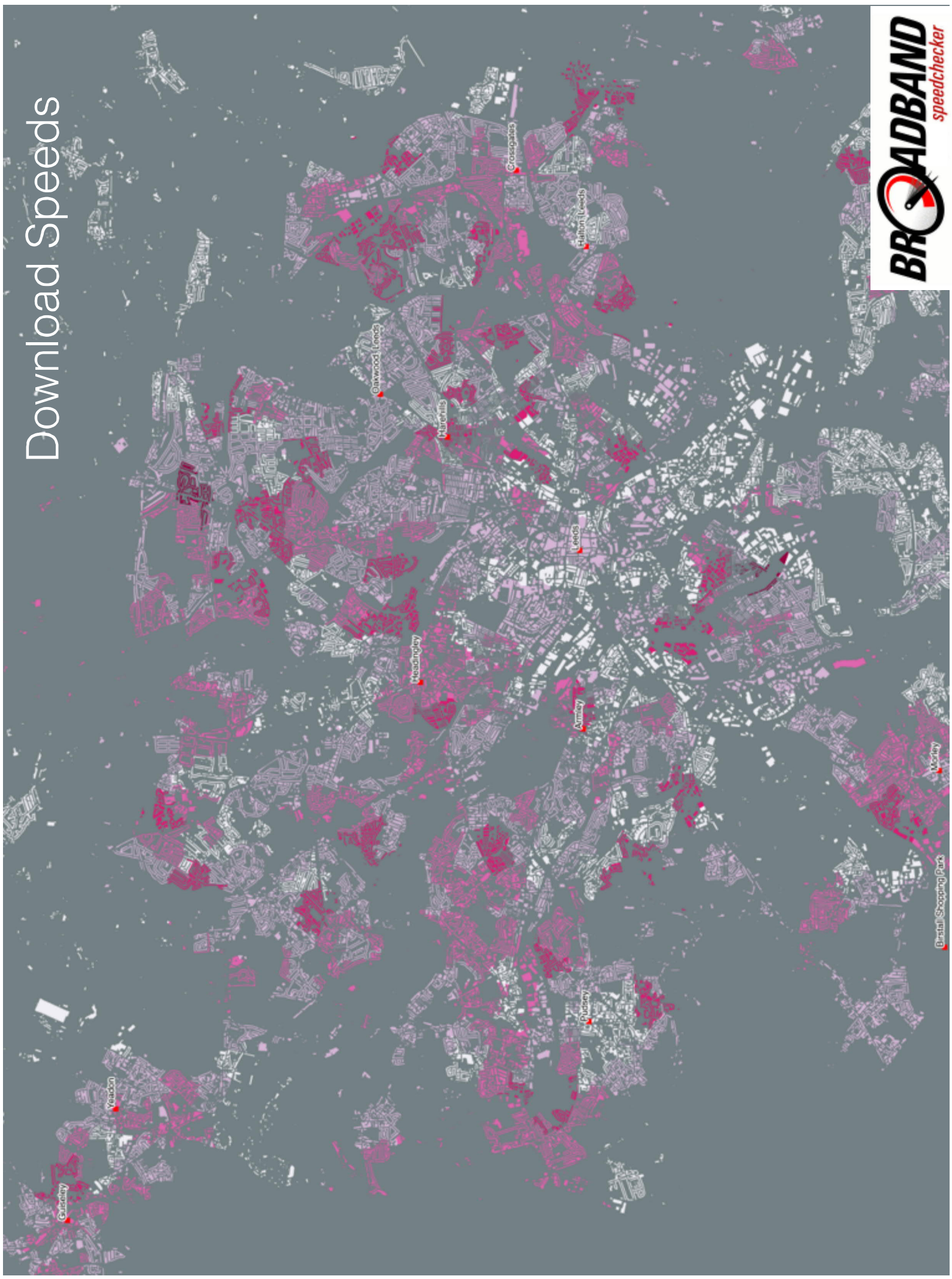
<http://www.sharegeo.ac.uk/handle/10672/372>

Bratton Shopping Park

# Distance to telephone exchange



# Download Speeds



## The Oxford Internet Surveys

OxIS is the longest-running academic survey of internet use in Britain, describing how internet use has evolved from 2003 to the present day. Run by the [Oxford Internet Institute](#) at the University of Oxford, this survey provides unrivalled data, rigorous analysis and policy-relevant insights into key aspects of life online.

OxIS is a multi-stage national probability sample of 2000 people in Britain, enabling us to project estimates to the nation as a whole. Undertaken every two years since 2003, it surveys users, non-users, and ex-users, covering internet and ICT access and use, attitudes to technology, and supporting demographic and geographic information. [Find out more about the surveys.](#)



**Read the OxIS brochure 2003-2015**



**Read about our research**

### Support

OxIS has been supported by: Ofcom, Nominet Trust, dot.rural Digital Economy Hub, Cisco, Talisma, the British Library, ITV, O2, AOL, Wanadoo, BT, Scottish and Southern Energy, and the Higher Education Funding Council of England (HFFCF)

### Browse: Demographics

Age and Lifestage (11)

Education (4)

Gender (4)

Income (3)

Employment (2)

### Browse: Research Themes

Use and Non-use (13)

Inequality and Divides (11)

Attitudes and Behaviour (8)

Young people (5)

Governance and Regulation (5)

Politics and Government (5)

Skills and the Economy (3)

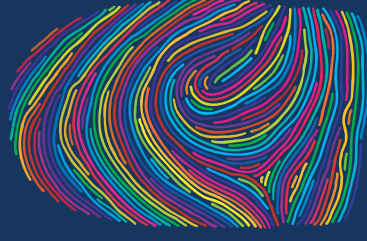
# Internet Consumer Map Book



UNIVERSITY OF  
**LIVERPOOL**



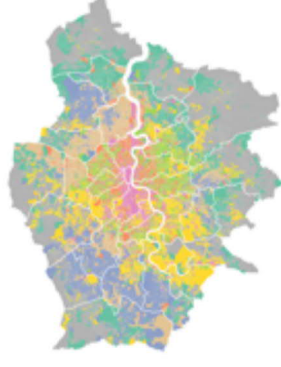
# 2011 Census Open Atlas



Alex Singleton ([www.alex-singleton.com](http://www.alex-singleton.com))  
Version 2.0



# London Output Area Classification



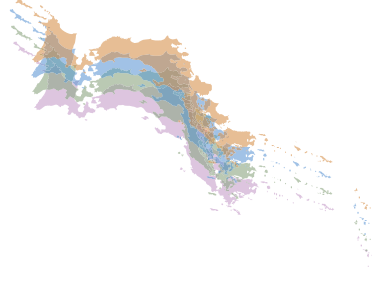
Paul Longley  
Alex Singleton

# Transport Map Book



Alex Singleton ([www.alex-singleton.com](http://www.alex-singleton.com))  
Version 1.0

# 2010 Census of Japan Open Atlas



Alex Singleton ([www.alex-singleton.com](http://www.alex-singleton.com))  
Census Bureau, National Institute of Statistics, Japan  
Version 1.0



<http://www.alex-singleton.com/>

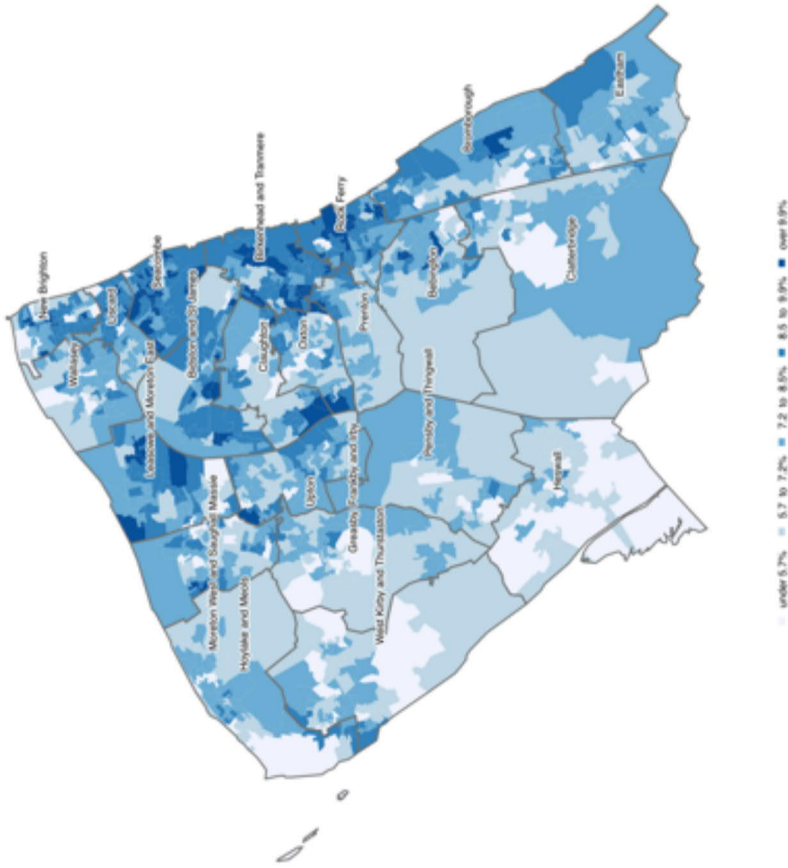


Figure 2: Persons who would seek information on a local MP through the internet on a smartphone

Variable ID: Q1142  
 Contains Oxford Internet Survey data.  
 Contains Ordnance Survey data. © Crown copyright and database right 2014.  
 Map created by Alex Singleton www.alex-singleton.com.

# All local authorities

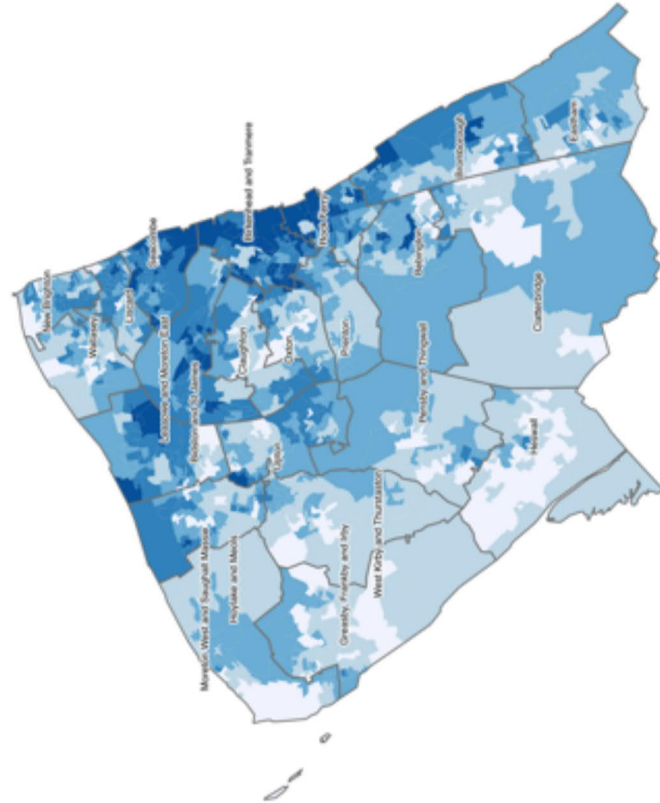
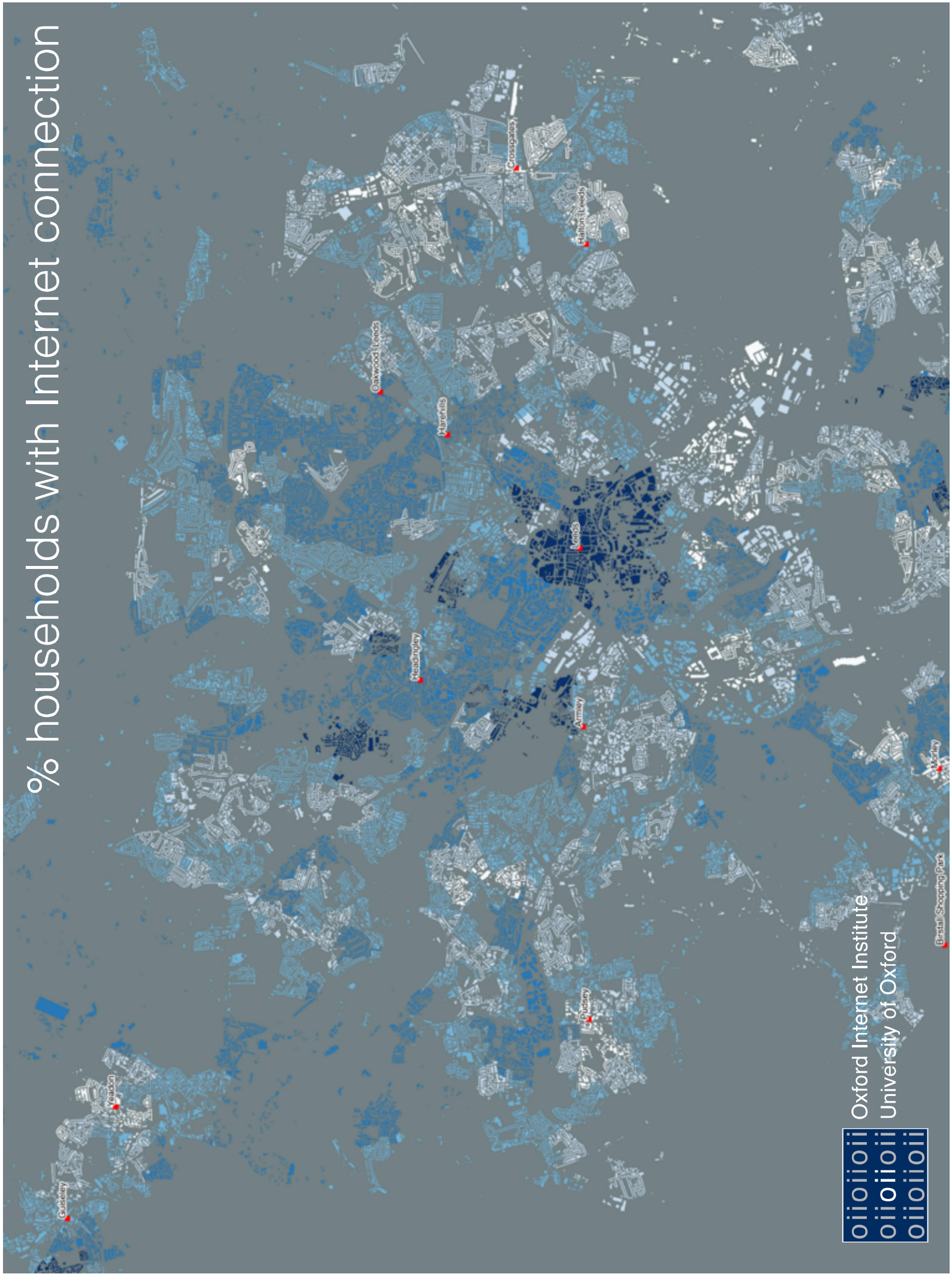


Figure 6: Persons who would seek information on a holiday or journey through the internet on a smartphone

Variable ID: Q1143  
 Contains Oxford Internet Survey data.  
 Contains Ordnance Survey data. © Crown copyright and database right 2014.  
 Map created by Alex Singleton www.alex-singleton.com.



# % households with Internet connection



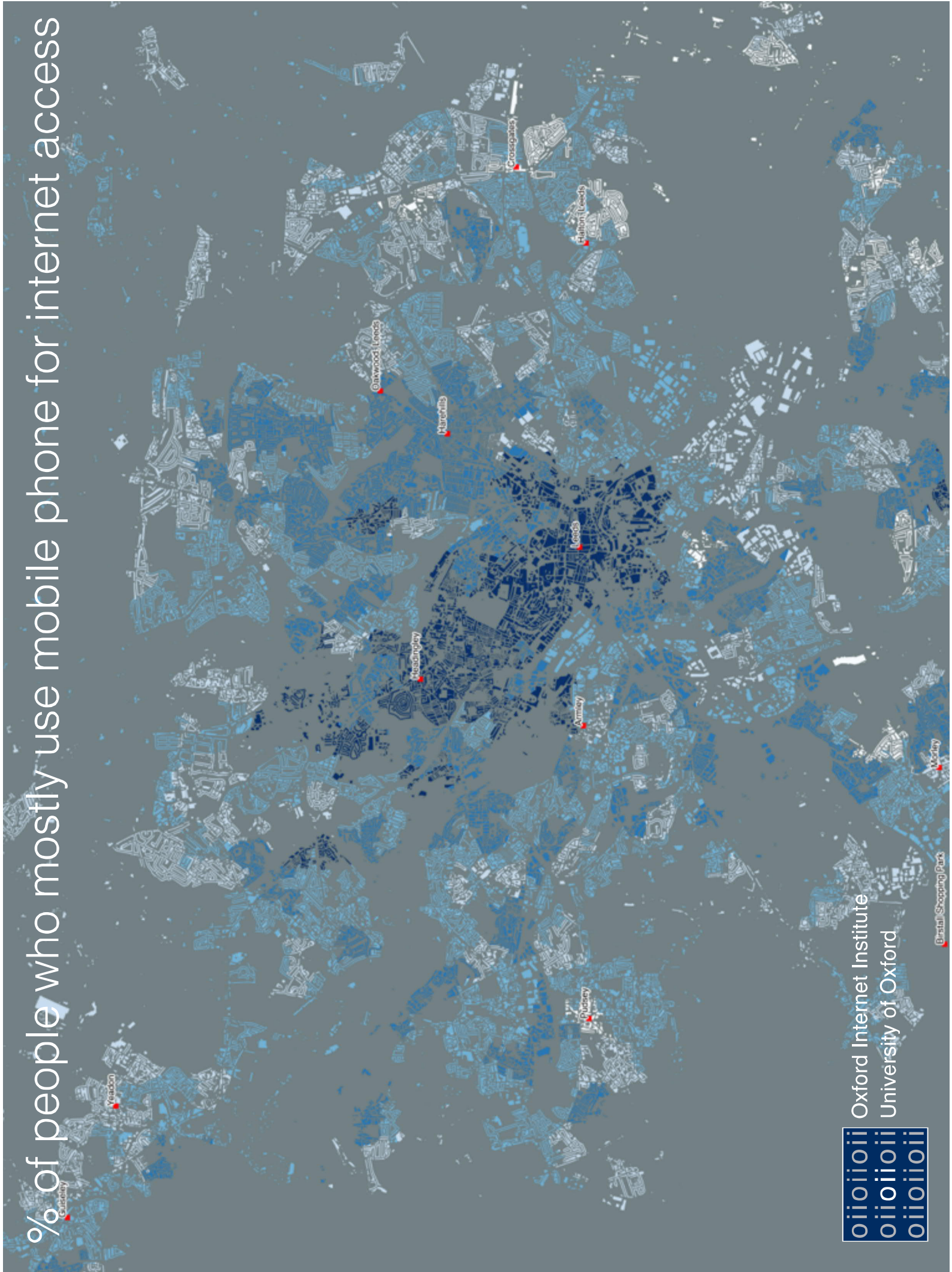
Oxford Internet Institute  
University of Oxford



% of people who mostly use mobile phone for internet access



Oxford Internet Institute  
University of Oxford

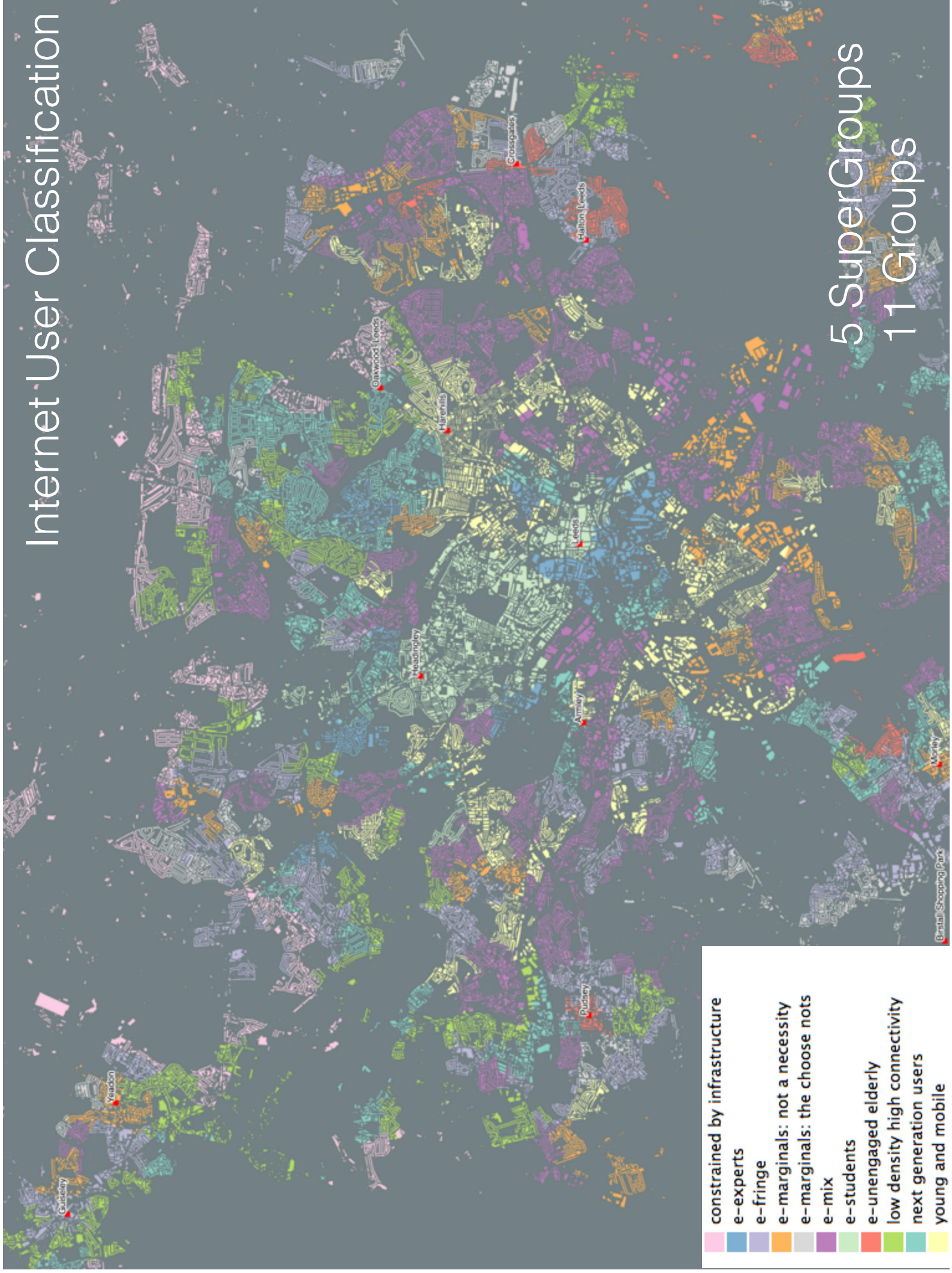




# From Attributes to Contexts

- Similar method as OAC
- Standardised Inputs
- K-Means
- 2 tiers

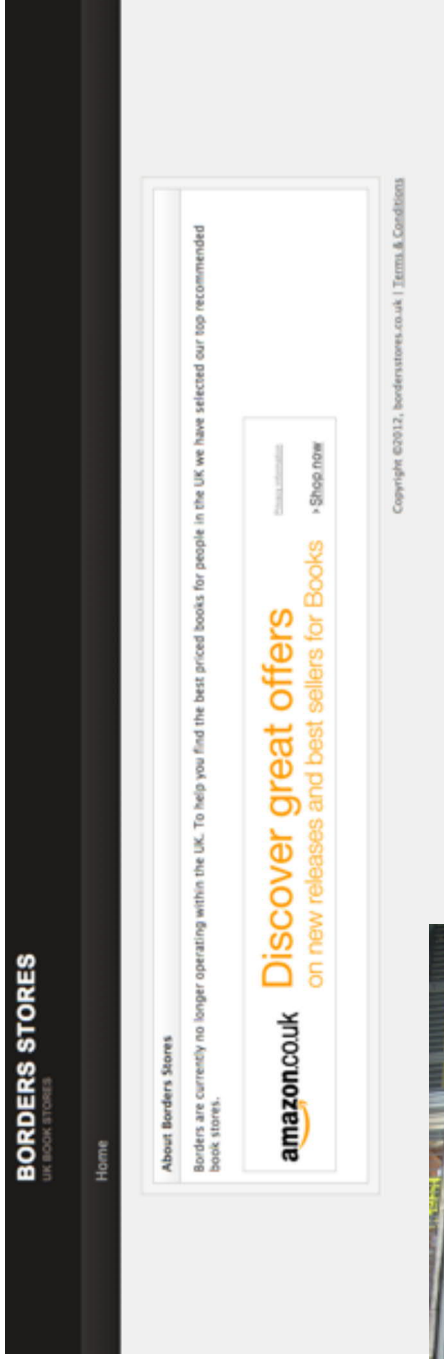
# Internet User Classification



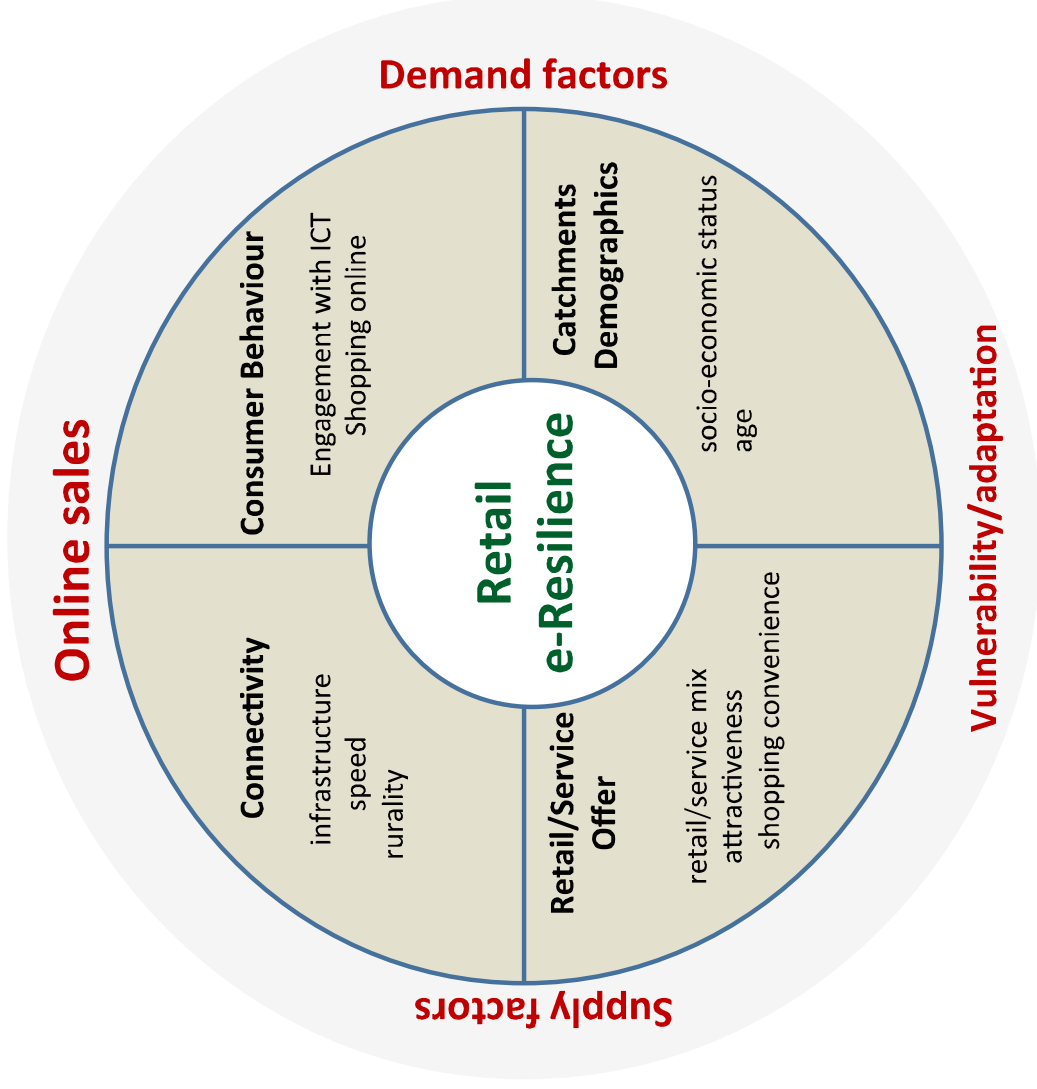
- constrained by infrastructure
- e-experts
- e-fringe
- e-marginals: not a necessity
- e-marginals: the choose notes
- e-mix
- e-students
- e-unengaged elderly
- low density high connectivity
- next generation users
- young and mobile

5 SuperGroups  
11 Groups

# e-Resilient Retail



# e-Resilient Retail



# e-Resilient Retail





# e-Resilient Retail



# Catchment Estimates

*A - attractiveness*



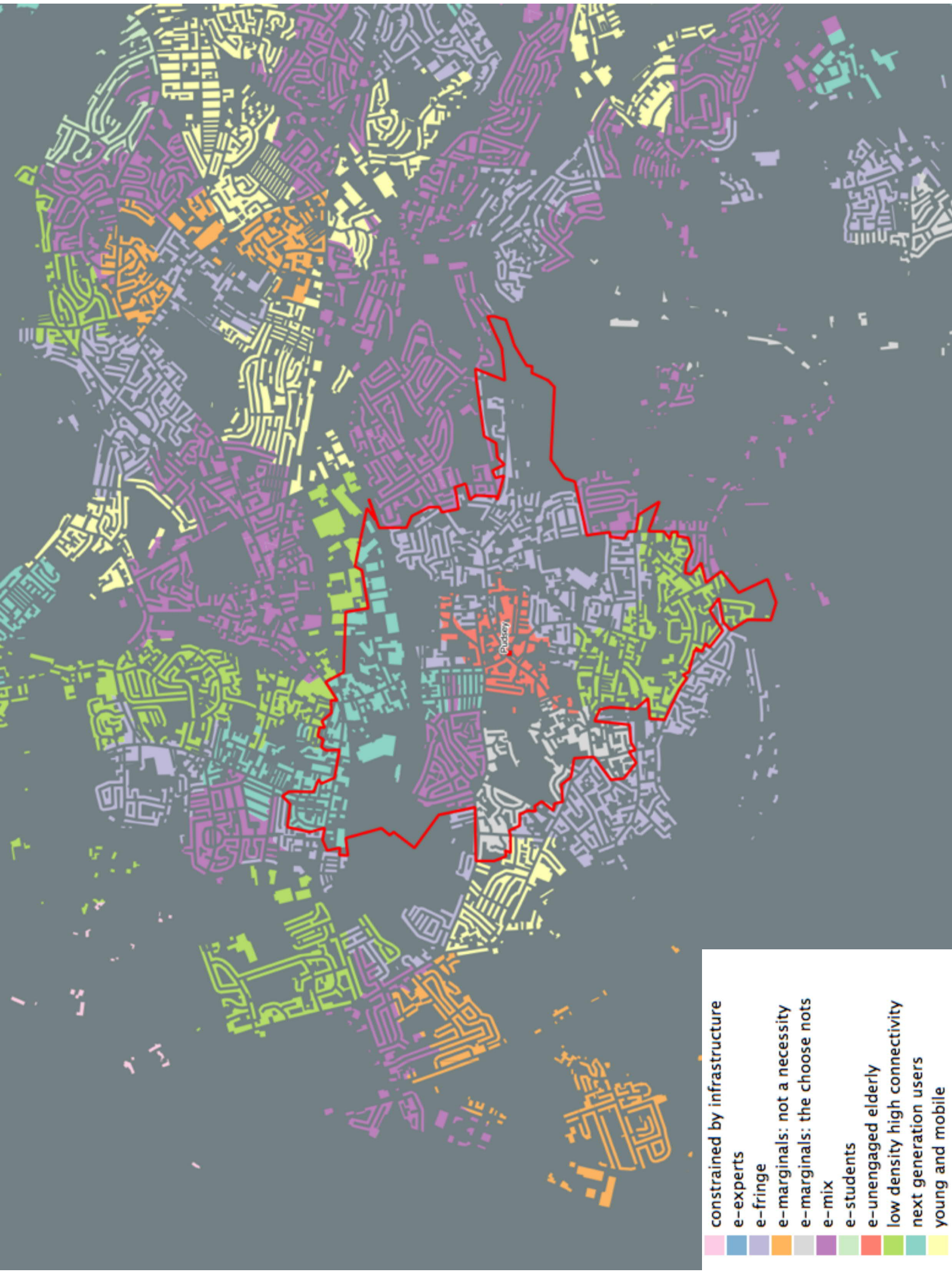
# Some Innovations



- 1) Use the retail centre extent not the centroid
- 2) Street distances, not straight line
- 3) Routing / model all within R
- 4) Open Source



75%



# Work in Progress

- Catchment model refinement
- Population
  - Geodemographics
  - Day V Night
- Retail hierarchy
- Sensitivity to e-Resilience
- Retail activity type - e.g. comparison V leisure etc
- Retail centres...

# London Output Area Classification

A free and open geodemographic for London.

[Check my Postcode](#)

## ★ Why Open?

There are many geodemographic classifications available from providers in both the public and private sectors. We do not prescribe any particular classification and always advise user testing and comparison. However, open geodemographics have a number of advantages.

### Advantages of Open Geodemographics...

Free - to download and use, even for commercial sector applications.

Transparent - and reproducible, providing a more defensible position for research and public sector applications.

Supported - by an active and helpful user community at no cost.

Flexible - and available to modify, augment or replace.