



THE UNIVERSITY *of York*

**Local Knowledge?  
Internet-Based Neighbourhood  
Information Systems (IBNIS) and their  
(Possible) Consequences**

**Prof Roger Burrows  
Dept of Sociology  
University of York**

**Ofcom/Loughborough University  
Communications Regulation and Low Income  
Consumers - Research and Policy Seminar  
29<sup>th</sup> Nov 2004**



# Reararticulating Digital Divides

- Usually understood as uneven access to internet; expanded to consider differential utilisation of digital resources...but perhaps need to turn to look at it another way as well
- 'Software Sorted Cities'
  - 'digital divides are not just about...uneven access to the Internet...just as important are the powerful and often invisible processes of prioritisation and marginalisation as software and code are used to judge people's worth, eligibility and levels of access to a whole range of essential...spaces and services' (Stephen Graham)



# Software Sorting of Society

- internet prioritisation
- electronic road pricing
- CCTV
- biometrics and algorithmic surveillance techniques
- call centre queuing
- 'geodemographic sorting of cities'

# Sorting Places Out?

'Based on the imperatives of the nation-state and, increasingly, commerce, the city is being fixed, positioned, guided as never before. The map, the census, postcodes, area codes, licence plates and other means of producing location have been joined to technologies like GIS, global positioning systems and so on, and to the paraphernalia of choice and opinion like surveys, polls and focus groups, to produce a means of continuous recognition...the set of fixes...makes it much easier to produce spatial categorizations, so that the portion of human subjects dwelling in databases becomes increasingly determinate: you become where you live.' (Thrift and Amin)









# Supporting 'Splintering Urbanism'

- Geodemographic classifications are consciously used by commerce and policy makers in order to inform the targeting of goods, services and policy interventions.
- It is in this sense that Graham and Marvin talk about geodemographic systems as playing 'supportive roles' in the what they see as the contemporary splintering of urban space.



# Automated Spatiality?

- 'such practices are augmented...by...software-based techniques, linked to computer databases...[that] sort users...work automatically... continually...and in real time' (Graham).
- 'Software sorting' is
  - being done to overcome problems of congestion , queuing...and to maximise the quality of service...for premium privileged users...ICT-based sorting can allow enhanced functionality to be offered to those deemed attractive...[whilst]...less attractive users and communities ...can be pushed away electronically' (Graham).



# The Emergence of IBNIS?

- Encouragement to (some) people to 'sort themselves out'?
- Given a postcode one can quickly and easily generate a vast amount of information about any particular city or neighbourhood via [www.upmystreet.co.uk](http://www.upmystreet.co.uk), [www.homecheck.co.uk](http://www.homecheck.co.uk), [www.statistics.gov.uk](http://www.statistics.gov.uk) or even [www.craptowns.com](http://www.craptowns.com) or [www.chavtowns.co.uk](http://www.chavtowns.co.uk)
- In the USA a number of sites - such as [www.homestore.com](http://www.homestore.com), [www.findyourspot.com](http://www.findyourspot.com), [www.bestplaces.net](http://www.bestplaces.net) and [houseandhome.msn.com](http://houseandhome.msn.com) - have been established where users can enter 'their' socio-demographic preferences and be provided with a series of zip codes containing 'their' preferred characteristics (including geodemographics).



# Coming here soon...

- £400k
- Top 10% school
- Bottom 20% crime
- 2 miles to railway station
- 1 mile to pub
- Broadband access
- Mosiac habitus 'Urban Intelligence'
- 1 mile to organic veg store
- Ethnic mix?



# Defining IBNIS?

- *Free access,*
- *to geographically referenced data of various sorts;*
- *that is searchable*
  - either in terms of being able to look up information on a particular place (via a postcode, SAO, ward, town or city for example) and/or by being able to locate particular places that conform to some specifiable characteristics.



# YO30 6WP

- At [www.upmystreet.co.uk](http://www.upmystreet.co.uk) ACORN characterises as *older professionals in detached houses and apartments*.
  - 'affluent people living in largely suburban areas. Households tend to be a mixture of couples, families and singles, but with fewer children and more retired people than the UK as a whole. People tend to be well educated, and employed in senior managerial and professional occupations. Property is a mixture of houses and flats. The houses tend to be large, with four or more bedrooms, with slightly more semi-detached than detached and terraced. Flats are a mixture of purpose built and converted, some of which are privately rented. Reflecting the slightly older age profile of the people in this type, more of the houses are owned outright. Car ownership is high with two cars being very common. One of the cars is likely to be a high value company car. These affluent individuals have high incomes as well as high levels of savings and investments. They are also characterised by high credit card limits and high credit card usage. They make investments using financial advisers and brokers, as well as directly using the Internet. Internet banking is very common. All the major broadsheets are read, and interests include fine arts and antiques, theatre and good food and wine. Eating out is also popular.'

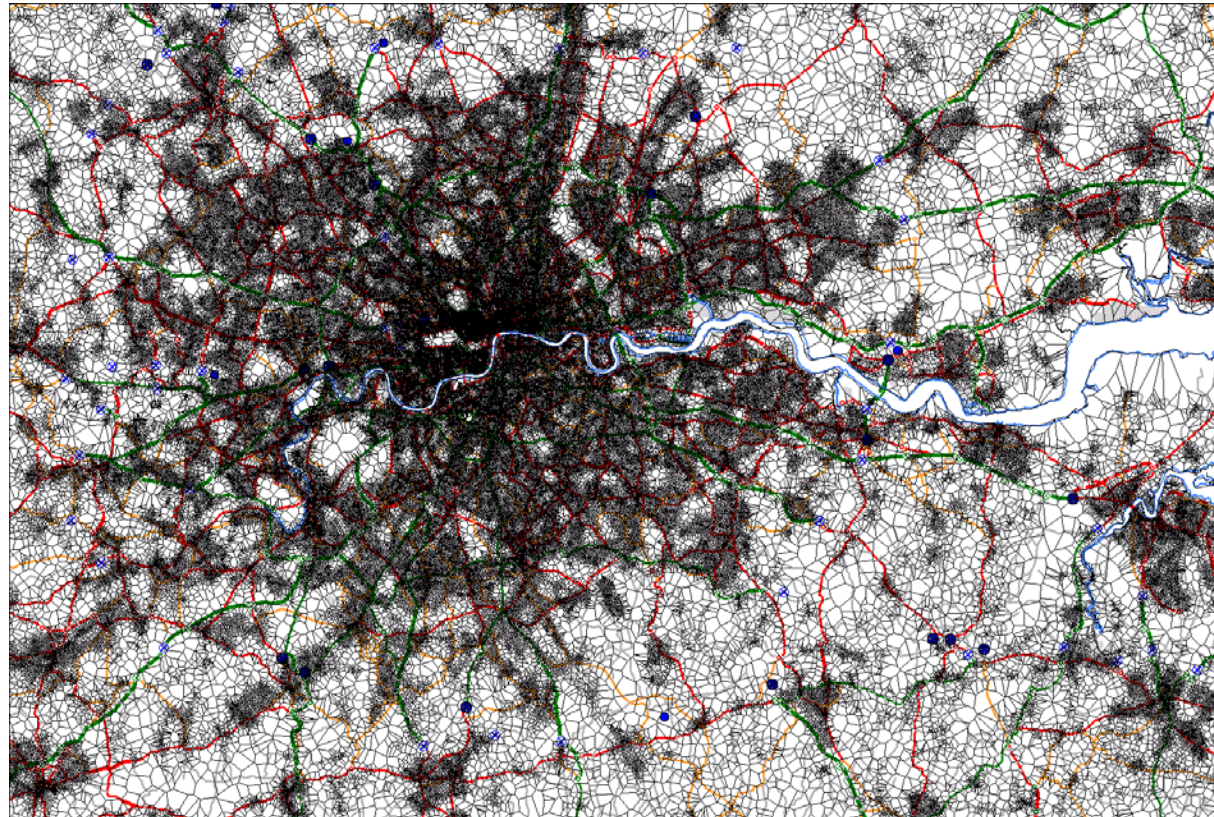






# UK Postcodes

- There are 1.7 million postcodes in the UK
- On average a postcode covers *14 houses*





# Postcode density close up...



500m



500m

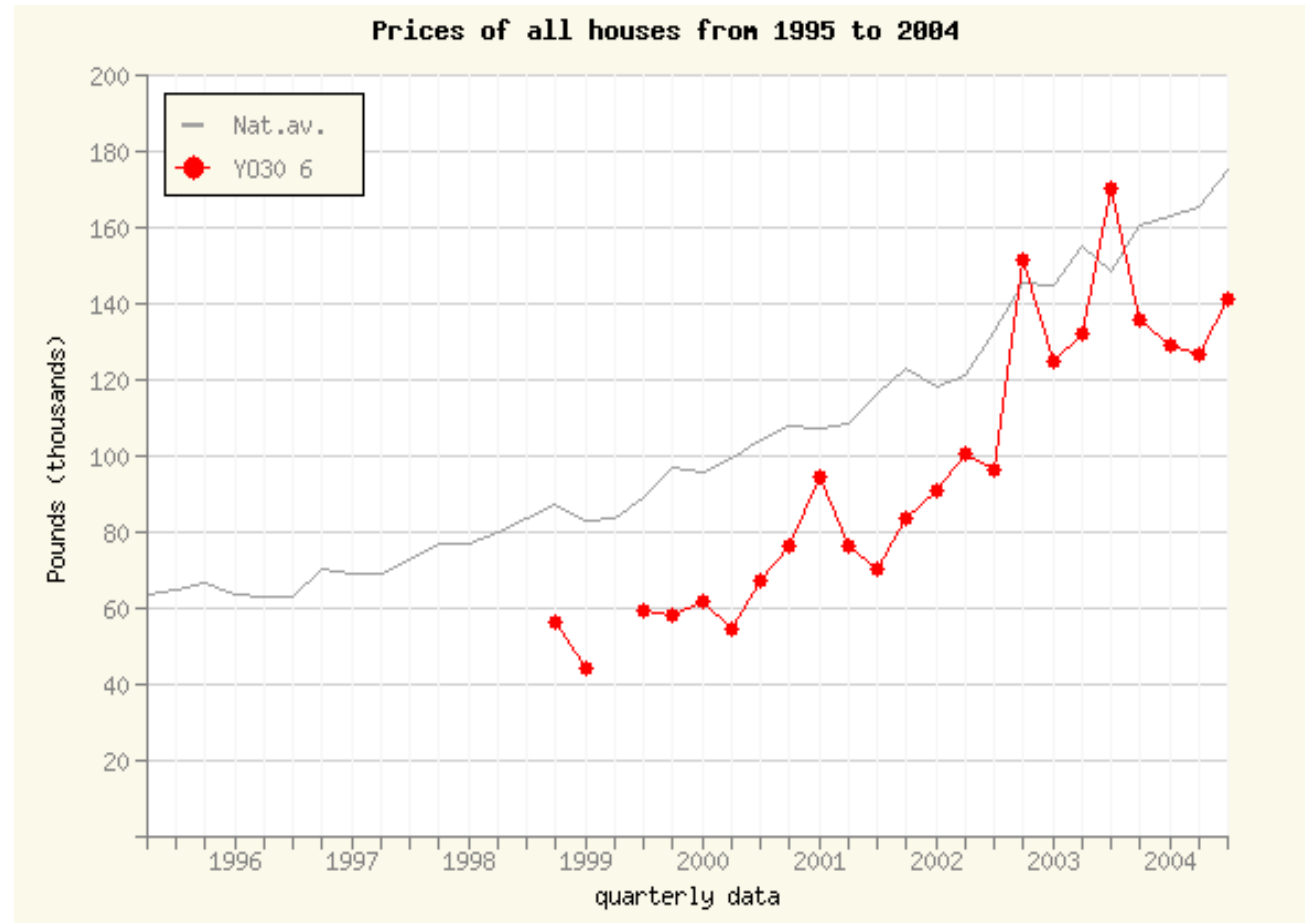


# House Prices

- The UMS site also reports current house prices for the postcode using data from the Land Registry. In November 2004 a semi-detached house in YO30 6 (the lowest level of granularity for such data) cost an average of £156,440 compared to a national average of £157,767.
- A few more clicks of the mouse and one can discover the nearest primary and secondary schools (one can then easily link to school websites, OFSTED reports and local school 'league tables'). More clicks and one can discover the distance of the centre of the postcode to a wide range of services: from York railway station through to local homeopaths, fish and chip shops, child minders, estate agents and so on.
- A few further clicks and one can read or participate in a series of asynchronous virtual 'conversations' about various aspects of York and its environs. People are posting to ask for 'local lay knowledge' about: where to rent or buy accommodation; the quality of particular schools; the safety of particular cycle paths through the city; where to leave cats and dogs whilst on holiday; and so on.



# Graph local data



# Environment Home Sellers packs!!

- At [www.homecheck.co.uk](http://www.homecheck.co.uk) detailed information about the physical attributes of the neighbourhood can be found:
  - the postcode is evidentially 500m away from an indicative flood plain;
  - the risks associated with subsidence, coal mines, landfill, pollution, and historical industrial land use are all judged to be high; but
  - the risks from radon gas are judged to be low.







# Official data

- At [www.statistics.gov.uk](http://www.statistics.gov.uk) access to a range of 'official' neighbourhood statistics can be obtained.
  - It takes just a few mouse clicks to discover that the postcode is in the Clifton Ward of the City (population 12,017 in 2001) which is ranked 2,469th (out of 8,414) most deprived in England. Ward level data on the population is also available and can be compared with York and England as a whole.
  - The gender, age, household type, ethnic and religious make-up of the population is readily available as are data concerned with health, caring responsibilities, economic activity, benefit claimants, students and their qualifications, tenure, housing conditions and types, crime and much more.



# Official data

- So, for example: 97.3 per cent of the Clifton Ward is classified as being 'White'; 67.8 per cent as 'Christian; 19.7 per cent as possessing 'no religion'; 8.9 per cent describe their health as 'not good'; 17.3 per cent live with a limiting long-term illness; and 3.8 per cent are 'unemployed'.
- Also available is an impressive interactive map that allows the user to 'drill down' to the level of individual streets and houses (although most data is only available at far higher levels of geographic aggregation).



Unofficial data? [www.Chavtowns.co.uk](http://www.Chavtowns.co.uk)

"York is surrounded by a ring of shite - huge post war council estates which are true no-go areas for the buses and the police, and real shit ridden ghettos. Small, sunken-eyed undernourished feral little charver boys with cracked-cornered mouths hunch over spliffs and drink lager in every green space. With often less than 50 words in their vocabulary, they speak out of one nostril and have permanently knitted brows. Heroin and Crack cocaine are rife . Car crime, burglary, drug dealing and mindless violence are the norm. A feeling of menace pervades these chav estates, and like in many other English towns, that menace has moved into the city where hooded rat boys move in gangs robbing, destroying and committing acts of random violence against ordinary people going about their business. Now that all the new blocks of "luxury" housing developments going up all over York city centre are required to have a charver quota, ("pepper-potting" is the term, I believe) nowhere in the city is safe from these beasts."





# 97204

- Downtown Portland, Oregon in the Pacific North West of the USA
- [www.portlandonline.com/oni](http://www.portlandonline.com/oni) - allows members of the public to use an elegant mapping interface in order to view local data on: property; neighbourhoods; schools; parks; physical geography; crime; and much more.
  - This mapping can be done at various levels of granularity from particular addresses right the way up to the City boundary itself.
  - Much of the data can be organised not just via administrative boundaries and census geographies but also via 95 neighbourhood association zones that, it is claimed, possess a social-cultural integrity from the perspective of the people who actually live within them.



# Compare and contrast..

- At [houseandhome.msn.com](http://houseandhome.msn.com) one can obtain detailed demographic data on 97204.
  - The population is 1,742 people living in 666 households with a median household income of \$26,221 (well below both the regional and the national average).
  - The median age is 35.3 and 74 per cent of the population is male.
  - Other detailed information is available that relates to: educational levels; crime; cost of living; health and safety; employment; housing; and transportation.
- It is also possible to compare the characteristics of this zipcode with others in other parts of the country in order to ascertain which provide the closest 'match'. So, for instance, if one compares 97204 with zipcodes in Massachusetts, the nearest matches are revealed as 02215 in Boston and 022465 in West Newton.



# Geodemographics

- MyBestSegments - a website run by geodemographers Claritas Inc. - provides data for every zipcode in the USA based on a number of its geodemographic classifications.
- Using its PRIZMNE classification, for example, the most common socio-demographic segments living within 97204 are revealed to be those categorised as *Low Rise Living* - described as the most economically challenged urban segment, young ethnically diverse singles and single parents - and *urban elders* - described as older Hispanics and African-Americans living in downtown areas as singles in older apartment rentals.





# Social Software for the Environment

- At [www.scorecard.org](http://www.scorecard.org) one is able to generate a highly detailed pollution report on every zipcode in the USA.
- For 97204 - Multnomah - it is revealed that in 2002 the area ranked amongst the 'dirtier 30% of all counties in the US in terms of air releases of recognized developmental toxicants'.
- A list of the main polluters is provided; topping this list are Wacker Siltronic Corp, Dynea Overlays Inc., and Columbia Steel castings Co., Inc.
- The main pollutants in the area include: nitrate compounds (1,074,401 pounds); methanol (225,681); manganese compounds (200,112); and Ammonia (74,715).



# A Typology of IBNIS

- First, there are sites that are explicitly *commercial*.
  - Adverts
  - Selling Something
- Second, there are those sites that have grown out of the activities of the *geodemographics industry*.
  - For marketing
  - Dumping neighbourhood data as move to 'roof-topping'?
- Third, there are *sites aimed at the policy and research communities* at both a national, regional and city level in order to provide data in support of a range of regeneration activities.
- Fourth, there are sites run primarily by charities, political and/or community organisations that utilise the technology in order to provide resources for environmental and/or community development and campaigning purposes. We might term these *social software sites*







## So what?

- It is not only that we may 'become where we live' - we also live what we become...access to online search facilities enables certain individuals (aware of the new sorting processes) to 'sort themselves out' by choosing spaces in a reflexive process of becoming.
- The growing sum of individual choices will have an impact on neighbourhoods and, as these come to match the ideal types articulated in the software-led imagination ever more closely, so software sorting adjusts to 'confirm' and compound this 'reality'?
- Engagement with software sorting decreases as deprivation increases, those in deprived marginal spaces are effectively 'sorted out' by processes with which they have no connection.



# IBNIS and Sorted Spaces?

Spaces	Character of social politics	Software sorting	'Cultures' of fear
Insulated/ gated	Proactively engaged	Proactive/ reflexive	Sealing in/sealing out ('exclusive')
'Open'/neutral	Defensively engaged	Defensive/ passive	Sealed in/sealed out (soft exclusion)
Insulated/ deprived	Disengaged	Disengaged/ imposed	Sealed off (hard exclusion)