REAL TIME GEODEMOGRAPHICS
New Services and Business Opportunities from Analysing People in Time and Space

Presented by Peter Furness

*The Future of Geodemographics*

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Topics

◆ The technology

◆ Case studies:

- – Pay as you drive motor insurance
- – Traffic forecasting
- – Virtual (and parallel) worlds
- – Retail planning
- – Location based services

◆ Privacy and data protection

◆ Some predictions

Further information on all the topics covered in this presentation may be found at the Real Time page of the Geodemographics Knowledge Base: www.geodemographics.org.uk/realtime

The Technology (1)

◆ Tracking:

- Global Navigation Satellite Systems (GNSS)
  - GPS and Galileo
- Mobile Phone Station Location
- Radio Frequency Identification (RFID) tagging
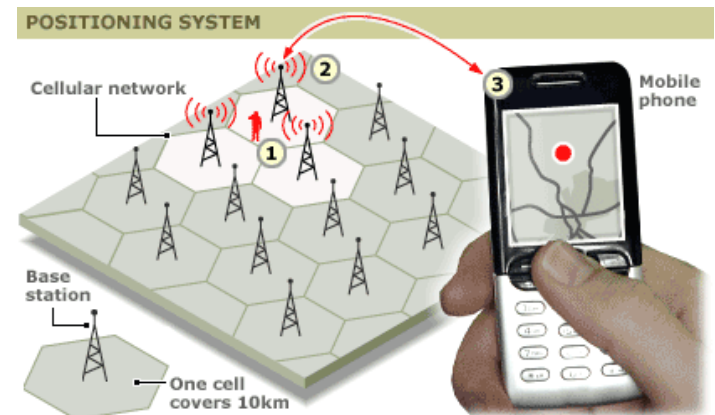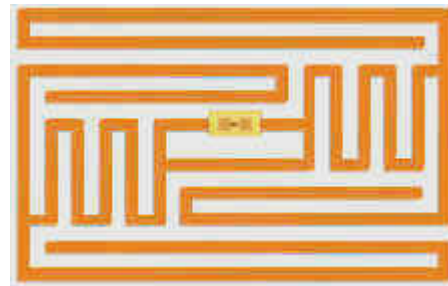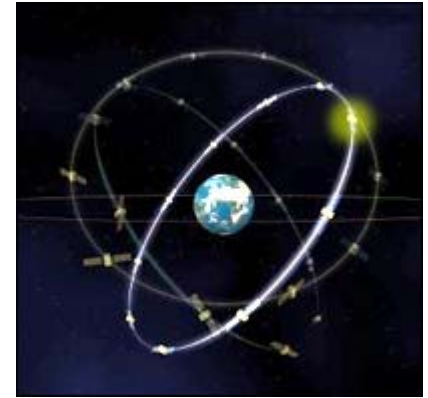
The Technology (2)

- ◆ Virtual worlds:
  - – Representing people and things in time and space
    - • Cooltown and 'The Internet of Things'
    - • Second Life/ViOS/ActiveWorlds
    - • Massively Multiplayer Online Games (MMOGS)
  - – Advanced data visualisation (beyond GIS)
- ◆ Surveillance:
  - – CCTV
    - • e.g. National Surveillance Network
  - – Satellite imaging and remote sensing
  - – Smart Dust

Case Study – Pay as You Drive Motor Insurance

◆ GPS device located in car

◆ Pricing:
  – Fixed monthly fee to cover fire and theft
  – Variable amount based on mileage driven, roads used and time of day of each journey

◆ Additional services, e.g:
  – Emergency safety button
  – Satellite navigation (optional extra)
  – Recovery of stolen vehicles

◆ Journey data is shared with Trafficmaster:
  – Date, time, location, direction, speed

◆ Also 'DriveTime' from More Th>n (Royal & SunAlliance

Case Study – Traffic Forecasting

◆ Real time data capture:
- Using GPS – e.g. Trafficmaster, ITIS FVD
- Using cellphone locations – e.g TrafficAid (in Atlanta from IntelliOne)

◆ Route finding tools:
- e.g. Smartnav

◆ Traffic flow prediction and mapping:
- e.g. ClearFlow from Microsoft

Case Study – Virtual Worlds

◆Virtual meets Real

◆Cooltown:
 – HP Labs. Web presence for people places and things

◆The Internet of Things:
 – March 26-28 Zurich

◆Real Time Rome:
 – MIT SENSEable City Lab
 – Integrates data from cellphones, buses and taxis
 – Use of advanced data visualisation
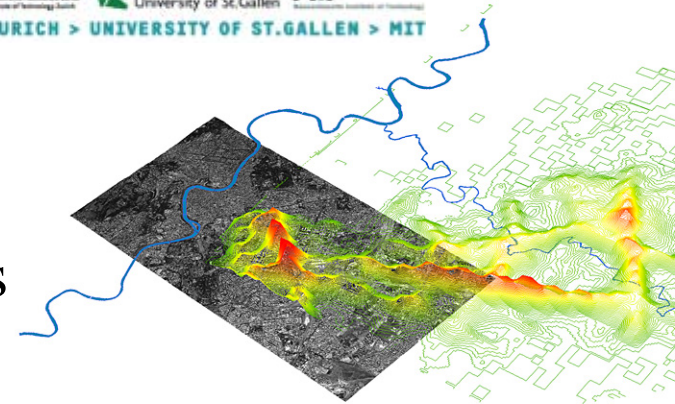
Case Study – Virtual Worlds

◆Second Life

– Created by Linden Labs

– '3-dimensional online, digital world, imagined, created and owned by its residents'

– Being used by 'real world' companies such as IBM, Sun, Nissan and Reuters:

  • Product & service promotion, employee communication and teaching

– Market research from e.g. Market Truths (NZ) and Reperes (France) targeted at Second Life residents

Case Study – Retail Planning

◆ Wharton Management School with Sorensen Associates

◆ PathTracker® technology

- Shopping trolleys with RFID tags
- Use of video technology

◆ Analysis of the patterns followed by grocery shoppers

Case Study – Location Based Services

◆ Location-specific information to mobile phone users on the move

◆ Convergence of GPS, mobile telephony and the Web

◆ Major players include Infinian, Google, Nokia, Trisent

◆ Services include:
  – Identification and booking of taxi, restaurant, medical, vehicle, ticketing and other spatially distributed services
  – Location based social networking
  – 'Proximity based notification' (inbound and outbound)

Privacy and Data Protection

◆ Increasing public concern about surveillance technologies, and data security but..

- General acceptance that data has to be exchanged in order to receive innovative and cost-effective products and services but..

- This requires companies to be faultless over privacy and data protection, otherwise customers will just walk away..

◆ Some big surprises coming…

Some Predictions

◆ Rapid evolution of all the applications discussed

◆ Emergence of new players specialising in analytics for the real time spatial world

◆ Someone will pick up the 'Cooltown' baton and seize the initiative to lay down a global infrastructure:

    – Google? Microsoft? IBM? Nokia?

References

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