Experience of e-Social Science: A Case of Andy Turner and MoSeS

Andy Turner

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Overview

- Introduction
- MoSeS starts for the promised land
- Blogging
- Philosophy of e-Social Science
- Reflections on MoSeS

Introduction

- Andy Turner
  - http://www.geog.leeds.ac.uk/people/a.turner
  - Autobiography
  - Blog
    - http://www.geog.leeds.ac.uk/people/a.turner/personal/blog/
- MoSeS
  - http://www.geog.leeds.ac.uk/people/a.turner/projects/MoSeS/
- Open eResearch
  - Research and Blog in detail
  - Distill from Blog

What is MoSeS?

- Modelling and Simulation for e-Social Science
  - http://www.ncess.ac.uk/research/nodes/MoSeS/
  - e-Social Science being the application of e-Science concepts to social science problem domains
    - e-Science is enhanced science that uses the Internet, software tools and structured information for collaborative work
- A first phase research node of NCeSS
  - Part of a UK collaborative partnership developing e-Social Science
  - The key part of it's program of work is to develop an individually based demographic model of the UK for 2001 to 2031
- MoSeS people

MoSeS Starts for the Promised Land

- Work on MoSeS was divided into 3 strands
  - demographic modelling
  - applications of demographic models
  - user interface and portal development
- 3 applications
  - health care planning
  - transportation research
  - business application.

My MoSeS Checklist

- Outputs to be made as openly available as possible
- Use appropriate standards
- Automate with free and open source software.
- Results to be replicable
- Be open about what we were trying to do and how
- Adopt best practice and learn from others in NCeSS and think about what else they wanted.

Blogging

- What is a blog?
- Why blog?
- The evolution of my blog?
- People use my blog
- It has opened up what I do
- The benefits far outweigh the costs

Philosophy of e-Social Science

- Jankowski 2007, Scott and Venters 2007
- Is e-Social Science open by definition?
- Is e-Social Science more than simply the application of e-Science methods to the social sciences?

Reflection on MoSeS

- Never-ending story…
- Too early to judge
- There are many positives:
  - I have learned a great deal over the last 3 years and found a community of collaborators that I am happy and excited to work with.
  - I have developed a lot of structured information about me and my research interests.
  - I have participated in lots of surveys.

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- Special thanks to my NCeSS and MoSeS colleagues.
- Thanks to the Oxford eResearch conference organisers.
- Thank you for listening!

MoSeS Rationale

- The idea is to provide planners, policy makers and the public with a tool to help them analyse the potential impacts and the likely effect of planning and policy changes.
- Example Application:
  - There may be a housing policy to do with joint ownership, taxation and planning restriction legislation that can be developed to alleviate problems to do with lack of affordable housing and workers without precipitating a crash in the housing market and economy as a whole
  - A balanced policy may be easier to develop by running a large number of simulations within a system like SimCity for real to understand the sensitivities involved

Initial Tasks

- Develop methods to generate individual human population data for the UK from 2001 UK human population census data
- Develop a Toy Model
  - Dynamic agent based microsimulation modelling toolkit and apply it to simulate change in the UK
- Develop applications for
  - Health
  - Business
  - Transport

Challenges

- Grid enabling the data and tools
- Visualisation
  - Google Earth
  - Computer Games
- Collaboration
- Retaining a problem focus
- Design and Development

Generic MoSeS Approach

- MoSeS to date has approached Modelling and Simulation from a specific angle
  - Geographic
  - Demographic
  - Contemporary
  - About the UK
  - Targeted towards supporting a developing set of applications
- It is not a requirement to make it clear what steps can be followed by other Social Scientists wanting to Model and Simulate something different
  - However, the generic work of MoSeS should be relevant and we are working towards this

MoSeS Vision

- Suppose that computational power and data storage were not an issue what would you build?
  - SimCity
    - http://en.wikipedia.org/wiki/SimCity
    - For real on a national scale

MoSeS First Steps

- The development of a national demographic model
- The development of 3 applications
  - Health care
  - Transport
  - Business
- The development of a portal interface to support the development and resulting applications by providing access to the data, models and simulations and presenting information to users (application developers) in a secure way

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Households

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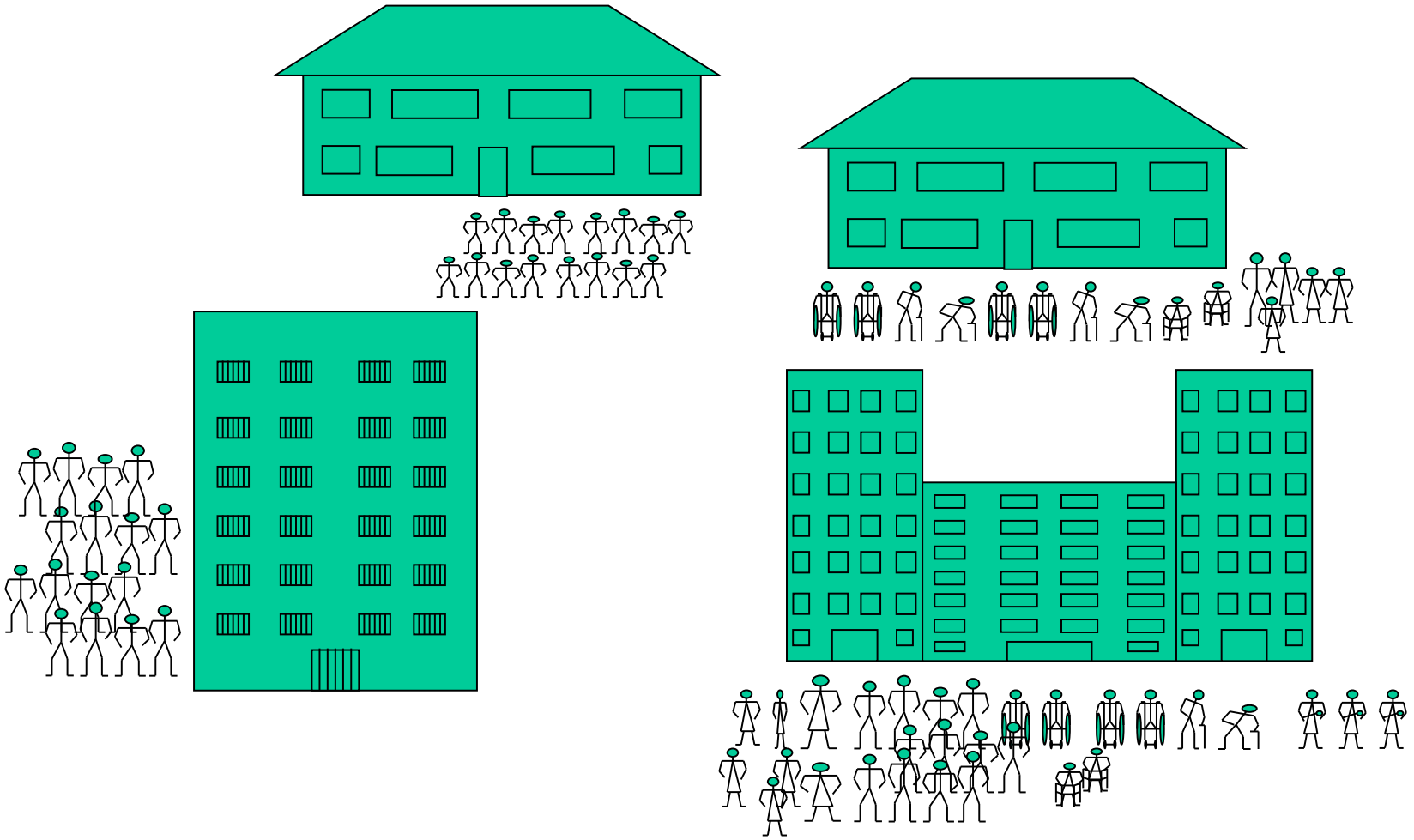
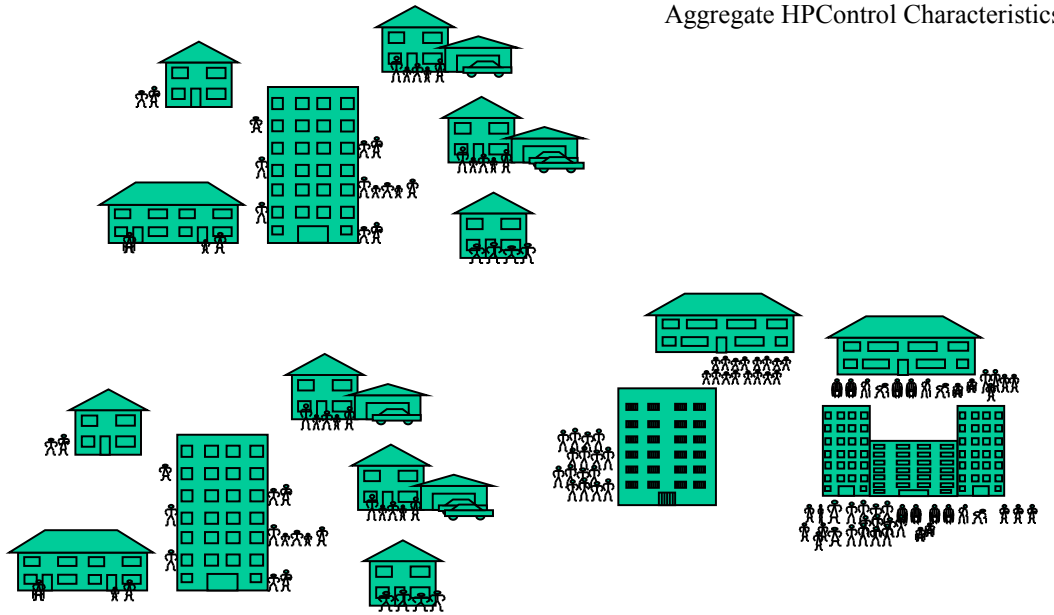
Communal Establishments





Aggregate HPControl Characteristics

HSAR

ISAR

Aggregate CEP Control Characteristics

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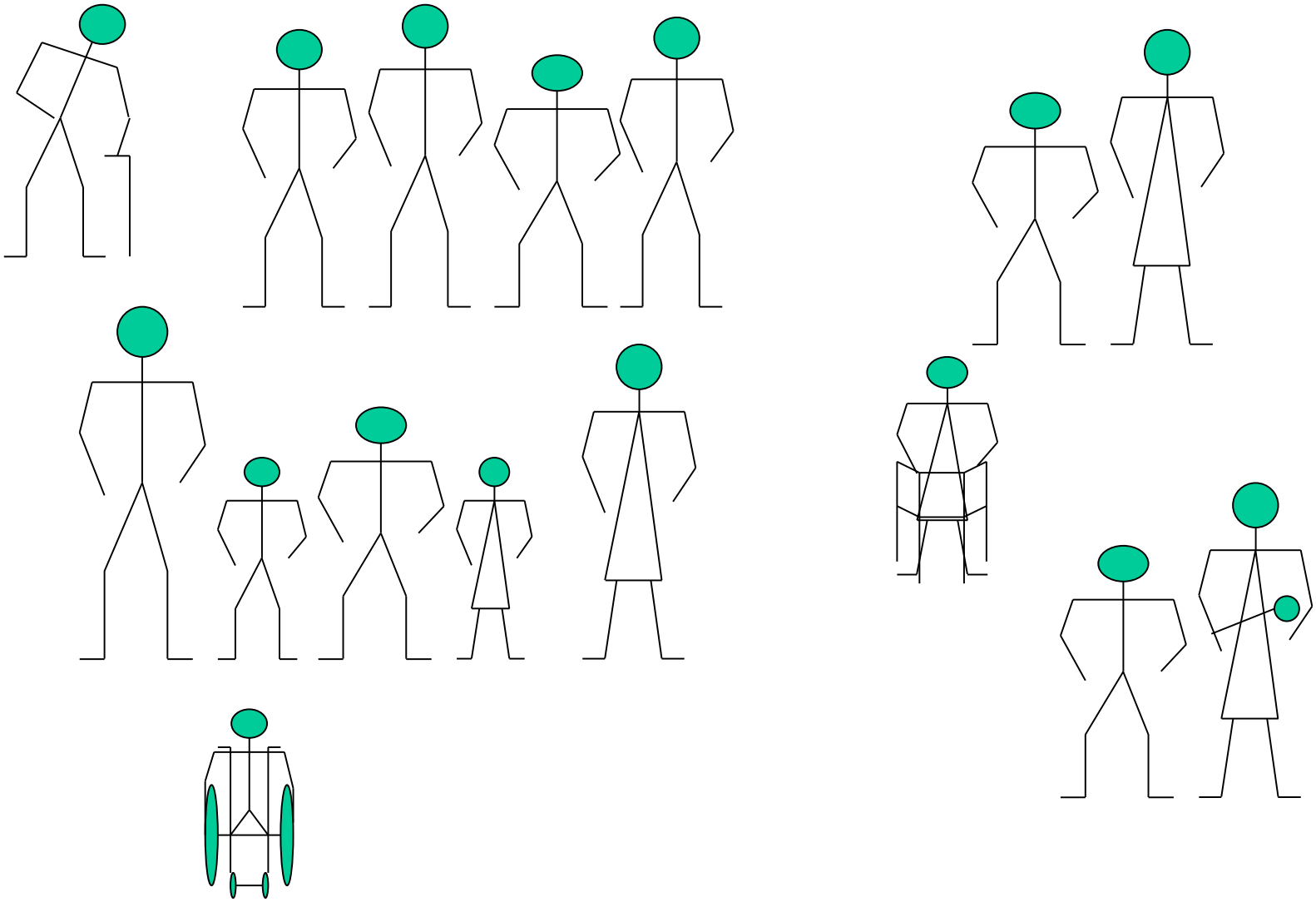

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