A Virtual Aged Care System: 
When health informatics and spatial science intersect

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• 3 centuries of ageing
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Introduction

• Last year...
• Lights, colour, action section of the presentation
• Scientific concepts in a changing world
• Ageing as complexity science
• Virtual options – less potential harm and perhaps greater potential benefits
• Proposal, not a campaign for more tech!
Three Centuries of Demographic Change

INFANT MORTALITY AND FERTILITY, SWEDEN, 1855-2000

YEAR

TOTAL FERTILITY RATE

INFANT MORTALITY RATE (PER 1000)

TFR  I.M.
And the Similar for Life Expectancies
Population Ageing as Complexity Science

• Everyone still knows Malthus and yet he was wrong from the start. Ideology – not science (no data)
• Population as generally used is a construct not a neutral observation (conflation etc)
• This is still a continuing problem in the 21st century
• Population events have very long tails – can’t always go back even if we wanted to
• Complex processes require complex and non-interventional scientific options
• And, as in real estate, location matters because variation is normal – no averages in nature
Natural and Policy Experiments

- Population has been ‘managed’ since the concept was fully realised -> territory + population = nation
- Ageing cannot be a surprise – only two things necessary -> rising LE and falling fertility
- Baby boom was a variation not the trend
- Social and political change is the issue and they lag behind the lived reality (see Diana Coole, Margaret Lock, Monique Lanoix etc)
- Need a virtual approach to overcome ideology, history and politics of population and ageing
- Safer experimentation has to be better than what we often see in policy ‘debates’, trials and pilots
- A spatialised approach allows for significant variability
Future Developments

• Increasing emphasis on ICT-enabled virtual and material environments:
  – The Programmable City – Kitchin et al;
  – Google Tango – real-time 3D mapping as you go;
  – Vizicities – real-time 3D visualisation plus your own data;
  – ESRI CityEngine – render development projects in high resolution and 3D (planning rules etc)
  – u-City concept in Korea, Japan etc
Conclusion

- Aged care is a large, complex and often poorly connected system in a state of constant change – advances and retreats.
- Scale and interconnections hard to integrate into typical interventions – lack a single over-arching exploratory environment – social policy often poor on space/place/location.
- Universality is a claim (idealised, late modernity stuff) not a reality – talk to rural or Aboriginal people etc about gaps.
- Location matters and always will – actually it is central to everything we do including ageing in ‘place’.
- Virtualising these dimensions can make them more manageable and more scientific – less ideology (maybe).
- Complexity science is where population ageing and spatial science intersect – a politics of information science needed!