Working Session Instructions (optional for interested)

"What a smart city needs in terms of health care"

https://globalresearchmethods.tghn.org

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Outline

- A short introduction on The Global Health Network
- A short Introduction on the session and on the project
- The plan for this session
- Conclusion and remarks, and the way forward

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The Global Health Network

www.theglobalhealthnetwork.org

- Online science park of over 30 communities of practise – focussed or cross-cutting
- Proven mechanism to disseminate methods & tools >830,000 visits, >79,000 site memberships
- Sharing protocols, case records forms; **the HOW TO**
- Delivering skills training and career support
- Driving change in research design and implementation

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Health Research often occurs in isolated silos…..

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Researchers don't share their methods and processes and health research is:
- A slow process
- Very expensive
- Hugely inefficient

An online science park for groups to work and share

Big Data Projects:

Using Big Data Analysis Tools to Extract Disease Surveillance Information from Point-of-Care Diagnostic Machines In Africa:

- Developing world = rapidly increasing numbers of point-of-care testing machines e.g., TB, HIV and others
- Cloud data repositories hold vast amounts of big data as unstructured so-called 'machine' data
- Possibility for extracting real-time disease surveillance data is novel & potentially revolutionary to guide & inform public health
- Many challenges - extracting, storing, & presenting these data in meaningful, ethical and legal ways
- Splunk.org provides potential tool for querying data

What about today?

- The University of Nottingham was awarded **EPSRC Institutional Sponsorship** to support multi-institutional activity, in particular the **Data Driven Discovery** Research Priority Area and Big Data.

- Highly interdisciplinary project was proposed, by a team from different departments within **the University of Nottingham** and from **University College of London** and the **University of Oxford**, as two founding partner universities of the **Alan Turing Institute.**

What about today? (2)

- This project is to explore solutions to and requirements of the challenges we face to manage and analyse big geospatial data.
- Within this project 5 seminars and workshops have already been organised to engage three main disciplines, including social sciences, medical sciences, and engineering. They have been held, at Nottingham and UCL on geospatial big data management, and meta data, big geospatial data and uncertainty, privacy and crowd sourced data.

Plan

1. Form into small groups of (6-8?) people and nominate a **representative** who can summarise what you have discussed
2. Generate a project concept on "**What a smart city needs in terms of the health care**" (in 5 min) this can be an application such as smart health monitoring app, ambient intelligent elderly assistive technology, diagnosis assistive services, medical expert systems, etc.
3. Discuss (in 20-25 min) focusing on:
   - **What are the (technological, social, economic, academic) requirements of your idea to be implemented**
   - **What organisations might be involved and work together to provide such service/technologies**
   - **What are the challenges to implementing this idea**

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Plan

4. Now representatives can **summarise** to others this in **5 minutes**.

5. Then we will discuss the ideas to see what might have been missed, what solutions could be for those challenges, and what can be implement in near future (based on the current trends).

6. Plan for a future grant application on some of the ideas!

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Next steps?

- Please email your summary to francois@theglobalhealthnetwork.org (subject 'Big Data')
- We have set up a page on the network, and will email out to all attendees who are interested
- https://globalresearchmethods.tghn.org
- We have set up a discussion and networking facility so that interested partners can connect
- We will also post up about funding schemes, studentship grants, networking awards, etc. related to your ideas and put you in touch with people who might be interested in….
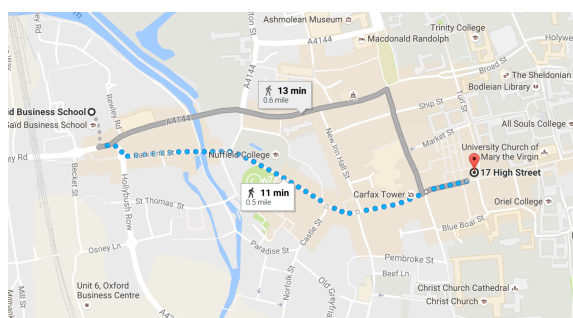
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Thank you for your contribution – before you go:

Please do join all attendees for drinks at at The Mitre 17 High St, Oxford OX1 4AG at 18:30

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