Making Open Source best practice in health & care

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- **DITO - Develop In The Open**
  - Project lead https://dito.tech
- **OpusVL - Open Source integrator**
  - Founder / CEO https://opusvl.com
- **OpenUK - UK Open Source industry association**
  - Founder / Director https://openuk.uk
- **The Perl Foundation**
  - President https://perlfoundation.org
An Open digital approach

- **Policy:** What is the current policy, and how do the recommendations within this document support it?
- **Principles:** What are the principles that are both practical and able to meet the policy and recommendations?
- **Practices:** What must be done to work operationally to those principles, and how can this be measured?
I’ve said it, 
Now what?
The DITO project – Develop In The Open!

Objectives:

1) Develop and share best practice processes for development and implementation of digital health technology

2) To evidence the process, produce a digital application using the developed process

Our project partners

- Coventry University
- South London & Maudsley NHS Trust
- Cheshire & Wirral NHS Trust
- Apperta – Not for Profit custodian
- OpenUK
The application

- 200+ screens
- Collaborative consultative design
  - Clinical
  - Technical
- Full workflow
- openEHR
- Open Source AND stunning
Key challenges & learning

Clinical
- “Like paper”
- Numeric data input
- Un/structured data
- Accessing EPR and other systems
- Integration with policy

Environmental
- 'federated whilst centralised' loosely governed system
- Attitudes, ingrained cultures
- Contracts & commercial

Technical
- Technical debt
- Incumbent systems
- Interoperability & data access
Evidence: The software

- Nurse interviews
  - Understand the need
- Prove in simulator
  - Coventry University
- Deploy for field trials
  - Clinical partners
- Open Source safety case
  - Safer than the alternatives
Evidence: The process

- Extracts from the academic study
A micro success study

- Developing the DENWIS archetype
  - The need: ‘Free-text’ issue
  - Located the clinical specification
  - Worked with experts to create the definition
  - Loaded in to CDR
  - Configured the interface
  - Enabled other interfaces
  - Ready for use

- This is what DITO enables.
Theory: Limiting factors of Open digital health tech

- **Are not:**
  - Digital / tech
  - Money
  - Capability

- **Are:**
  - Awareness & appreciation of the opportunity brought with an Open approach
  - ‘Product’ thinking
  - Understanding of commercial and governance models
  - Effective use of money
What’s next?

- **Publish evidence, documentation, code**
  - Safety case, policies, approach, implementation manual, repo’s
- **Prove and implement eObs V2**
  - Simulation testing, field trials
  - Extend V2 to cover full chain of prevention
  - Implement new functionality
- **Interoperability**
  - Extend Open Architecture work with NHS England, Scotland, Wales, Northern Ireland
- **OpenEHR - Task Planning**
  - Encapsulated, standardised and regulated work-flow and process
- **OpenEHR - Guideline Definition Language**
  - Encapsulated, standardised and regulated algorithms
Questions?

- In person: 6th February London DRIVE
- Publications, screenshots etc: https://dito.tech
- Professional services: https://opusvl.com/
- Communities: https://apperta.org
- UK Open Source Industry: https://openuk.uk/