Digital Health & Wellbeing Ecosystem

Innovation or Adoption Culture

Challenging the idea of ‘not invented here’

James Rawlinson
Director of Health Informatics
Challenging the idea of ‘not invented here’

- Director of Health Informatics Rotherham NHS Foundation Trust
- 23 Years (and counting) NHS Technology
- Vice-chair Northern and Yorkshire Director of Informatics
- Chair Yorkshire and Humber Informatics Skills Development network

Awards

- HSJ Winner - Enhancing Care by sharing data and information, SEPIA - The Rotherham Clinical Portal
- 2012 Healthcare IT Product Innovation – winner
- 2010 Healthcare IT Product Innovation – runner up
Challenging the idea of ‘not invented here’

What we mean & implications

- What is it…

- Slows adoption— we constantly reinvent yet more wheels

- Re-repeat mistakes

- Increased cost of transformation and change

Jed Brubaker “A bias against ideas and innovations that originate elsewhere”

Ignoring, boycotting or otherwise refusing to acknowledge solutions by others

Katz & Allen (1982) “Reluctance to adopt knowledge from competitors but not from suppliers”
Challenging the idea of ‘not invented here’

Causes

- This is not public sector core business
- Cultural tribalism
- Austerity v. risk
- Awareness of alternatives
- Barriers to share

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Challenging the idea of ‘not invented here’

**solutions**

- Partnerships and risk
- Awareness and cross pollination
- Academic Health Science Networks
- NHS England Global Digital Exemplars
Any questions or feedback?
Implementing innovation approaches to reducing AF related strokes

*Using technology and tools to support CCGs*

Dr Julia Reynolds, Associate Director & Head of Programmes
AF and Stroke Prevention in the North West Coast

- Total AF related strokes: 6309
- AF Strokes with anti-coagulation, 1/3
- AF Strokes with no anti-coagulation, 2/3
- Bed Days: 46,072, 6.8% at a cost of £8.7m

HES data 2014/15
Raise Awareness

Detect

Innovate

Correct

Protect

Use of technology
- Alive Cor
- MyDiagnostick
- Cardiocity
- Genotype guided dosing
- Microlite

Engagement with a range of professionals
- CCGs
- GPS
- SCN
- Community teams
- Secondary Care
- Tertiary Care
- Care homes
- Pharmacy

Models of care
- Digital platforms
- Service redesign
  - AF in hospital audit
- Self Management
  - Helicon & Roche
  - Online training

Campaigns – Raising Awareness. 46 people identified with irregular pulses in 2014/15
How does this work?

Practice selection & lead contact
- Several waves
- Support identified by the practices

Education
- Online support – QI Life Tool
- Face-to-face, clinical & QI
- Learning events

In practice support
- Expert guidance
- Stratification
- Quality Improvement

Innovation
- Technology
- Measurement – dashboard (GMAHSN)
- Evaluation (UCLAN)

Campaigns
- Literature
- In-practice or local support
Goals, Impacts, demonstrable measurable improvements

Reduced Strokes and more people identified.

Improved patient and clinician experience through better knowledge and management.

NICE CG 180 standards are met and maintained

More people are better managed and have greater awareness of AF.
The North West Coast AF Collaborative 2016-18.

- Education
- Quality Improvement
- Innovation
- Measurement AF Dashboard
- Local Campaigns
- A range of partners
Forward Plans 2017/18

- AF Collaborative
- Optimising the warfarin pathway
  Technologies such as Coaguchek & LGC
- Digital technology
- Partnerships
Open Digital Engineering
March 2017
Answer Digital Engineering:

Our skillset, Our people, Our mindset.

Software Engineering Core
Underpinned by Agile

- Development
- Basic Hosting & Support
- Testing
- Architecture
- Project Management
- Consulting
- Continuous Engagement
- DevOps
- Managed Service
- Software as a Service
- Sector Expertise
- Transformation
- UX / UCD
- Design
- Validation
Our mission.
In Digital Health, our mission is to positively disrupt the healthcare technology market through the delivery of innovative, high-impact and open digital solutions that improve patient outcomes.
King's College Hospital Integration Engine (TIE)

Building and deploying the first open-source Integration Engine in the NHS.

The Challenge

To architect a system that would deliver clinical information to 100 different systems.

To prove that the system was robust and capable of transferring and transforming large volumes (1mil+/week) of messages at high speeds.

To equip hospital IT staff with sufficient knowledge of the chosen open source technology to contribute to the undertaking and provide ongoing support.

To deliver on a limited budget against a pressing timescale.
Leeds Teaching Hospital (EPR) development

Deploying a team to ramp up in-house led EPR development, including the Leeds Care Record programme.

The Challenge

Refactor the code base in 3 months to something that is maintainable, performant and suitable for the challenge ahead.

Embed Agile software delivery processes within a mixed skill team.

Deliver functionality at the same time as Architectural uplifts to drive business benefits and secure further investment into the platform.
Leeds City Council

Integrated Digital Care Record Pioneer Programme Ripple Open Source Initiative.

Creating a Proof of Concept for an Open Source IDCR.

The Challenge

- Develop a User Interface, Integration Layer and Database using Open Source tools.
- Develop the capability to integrate with different technologies through Open Standards.
- Deliver functionality at the same time as Architectural uplifts to drive demonstrate benefits and secure further investment into the platform.
GP Connect

Working in partnership to Validate, Accelerate and Assure new openAPIs.

The Challenge

To lead the Architecture strategy, support the Programme Governance and Develop a Demonstrator to prove new specifications can be developed within the Principal GP Systems of Choice to enable the transfer of patient information across different care settings.
Central Manchester University Hospitals NHS

Transformation Partnership.

In Summary
Core Programme Stabilisation.
System Review.
Programme Governance Healthcheck.
EPR (in-house) Development Services.
Collaborative Improvement.
Call-off Skills / Expertise.
TIDE.
(Transformational Integrated Digital Engineering)
Personas

Defines in details the characteristics for a key user the site/app is targeting.

Details the current problems they face and the key user needs.

Details their habits and the preferred channels.

Gives insight we can validate against when designing.
User journeys

Define the user journeys that will meet the key user needs.

Outlines the functionality and flow required.

Starts to shape the experience of how users will complete key tasks.
Responsive wireframes
Responsive wireframes

- Providing a clear overview of what this page is.
- Clearly highlighting what the key objectives of the page are, to help focus on priorities.
- Listing essential vs nice-to-have functionality, based on the MVP backlog.
- Documenting assumptions we’re making as we create the structure, defining interactions and priorities as to how a user will interact to complete common actions.
We are Digital Engineers.
We architect, design and engineer software solutions.

We combine industry expertise in Finance, Health and Retail with 17 years of experience in delivering Agile projects.

We apply innovative technology to deliver measurable outcomes for our clients.

We are Answer Digital.
Thank you.

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Bradford Bright Ideas

Adopting the Innovation Challenge
Agenda

• Motivation and setting the scene
• Identifying the problem of accessing innovation & innovators
• Capacity, structure and team dynamic
• Set up, process, milestones and getting to implementation
• Innovation assessment and framework
Dr Andy Withers – Chair, Joint Clinical Board Bradford City and District CCGs

• CCG objectives
• The STP
• Financial drivers
• Innovating
Dr Taz Aldawoud – Commissioner Bradford District CCG

- Lots of enquiries - no process to evaluate or introduce
- No pathway for innovation
- No formal method for evaluation or strategic selection
- Working out a way to bring about change within the organisation
Dawn Clissett – Head of Organisational Development, Bradford City and District CCG

- Innovation agenda has many moving parts - aligning them takes strategy and effort, and perhaps a few meetings.
- Capacity and initial planning
- Personality types, commitment and mutual respect, care about making a difference, feeling responsible and accountable for improvement.
- Contracting - a key point, setting out what you want to do and putting a budget line against it
Ian Sharp – CEO Digital Health Enterprise Zone & Head of Digital Catapult Centre Yorkshire

• Gathering requirements
• Setting the strategic objective
• Setting expectations
• Devising a process to fit with the requirements
• Securing resources
• Process, process, process....
And now the process

- Gathering Requirements
- Setting up the briefing and workshop
- Expressions of Interest
- Invite to proposal
- Assessment/Discussion Feedback
- Dragons Den
- Further support & joint application
- Too early
- Selection and Implementation
Dick Clark – CEO Medipex

- Assessment
- Framework & Toolkit
Tweet Us!

- Dr Andy Withers @DrAndyWithers
- Taz Aldawoud @tazaldawoud
- Dawn Clisett @NHSBfdCityCCG
- Ian Sharp @IanDSharp @DigitalHealthEZ
- Dick Clark @Medipex
Panel Session – sharing the learning

- Panel discussion, inviting Q&A as the learning points are discussed.

- Dr Andy Withers to Chair (keeping the discussions on track).

Running through the process from:
- concept to set up,
- strategic fit,
- constructing the team (internal and external),
- defining the expectations,
- running the process,
- pinch points,
- finances (assigning budgets to process, experimentation, team, experimentation and evaluation).
Sheffield City Region
Test Bed Programme

Exploring patient driven digital health care in a real world setting; benefits, barriers and behaviour change
The Sheffield City Region **Perfect Patient Pathway** Test Bed aims to benefit patients with multiple long term conditions through combining and integrating **innovative technologies and pioneering service designs**, to keep patients well and independent and avoiding unnecessary hospital attendances.

- Focus on people living with multiple long term conditions including at least one mental health condition
- Focus on the population (two million people) of Sheffield City Region for initial testing of partner innovations.
- Lead partner Sheffield Teaching Hospitals NHS Foundation Trust, working with **over 30 partners**
- Linking into South Yorkshire and Bassetlaw STP and the **Digital Roadmaps**
Health, Social Care & Academic Partners

Sheffield Teaching Hospitals NHS Foundation Trust

The University Of Sheffield

Yorkshire & Humber Academic Health Science Network

NHS Sheffield

Primary Care Sheffield

NIHR CLAHRC Yorkshire and Humber

Sheffield City Council

Sheffield Hallam University

Sheffield City Region Local Enterprise Partnership

Voluntary Action Sheffield
Innovator Partners
Objectives

1. Improve the quality of life and wellbeing of people with long term health conditions, enabling individuals to maintain independence, using technology

2. Provide an ongoing platform for testing, refining and scaling-up innovations.

3. Re-design pathways, bringing combinatorial technologies and system transformations to support holistic and personalised care.

4. Embed the culture of transformation and improvement in NHS and other health and care organisations.

5. Support co-ordinated decision-making across health and care, informed by real-time data and predictive analytics.

6. Evaluate the combination of new technologies and service re-designs producing robust and objective results that can be shared and disseminated.
Innovative patient–led approach to patient pathway redesign

Do not go where the path may lead, go instead where there is no path and leave a trail

Ralph Waldo Emerson

Develop a new patient pathway built around the needs of patients, not the technology
Test Bed Advisory Group

• The Test Bed Advisory Group has been set up to ensure that the views and experiences of people living with long term health conditions and their relatives and carers are considered in the design and delivery of the Test Bed Programme.

• There are 19 members. They have a long term health condition/s or are the carer or relative of someone with long term health condition/s.
We said they did........

1. “Patients should not incur any financial cost when they take part, and should be reimbursed in some way when using devices use internet data they have paid for.”

**Multi-store gift vouchers will be offered to participants**

2. When hearing from two different providers about mental health support that could be offered in one of the projects, the group said “patient choice is important and both sources of support should be offered to patients.”

**Giving patients a choice of both sources of mental health support has been written into subsequent project design plans**

3. “How will you ensure that training will be of the same quality regardless of who delivers it?”

**A question on minimum training standards was added into the Project Initiation Documents**
Barriers

• ‘Big Brother’ is watching you! feeling as if people are checking up on you
• Being unmotivated, especially if there is nobody there to prompt you
• Increasing isolation. Thinking that technology will replace human contact. For some people care is the only human contact they have in their day
“I have numerous long term health conditions, and as the years go by the numbers seem to increase, I already do various home tests now, as a matter of routine, because, I want to maintain my independence whilst looking after my health. I am sure there are vast numbers of people feel the same way that I do.”

Ian Porritt
Test Bed Advisory Group Member
Discussion

20 minutes

1. What are the current challenges in the take up of digital health tools for members of the public?

2. What are the key drivers for sustainable behaviour change in the use of technology for healthcare professionals and members of the public?
Sheffield City Region Test Bed Programme

Exploring patient driven digital health care in a real world setting; benefits, barriers and behaviour change

www.ppptestbed.nhs.uk