DIGITAL PRAGMATISM:
Delivering real-world improvements in mental health

7 June 2016
ORTUS Learning & Events Centre
INTRODUCTION

Thank you for attending the launch of the Centre for Translational Informatics (CTI), an exciting new initiative led by the Institute of Psychiatry, Psychology & Neuroscience King’s College London and South London and Maudsley NHS Foundation Trust.

Aimed at facilitating digital innovation in mental health care, the Centre for Translational Informatics (CTI) brings together advances in analytics, software development and implementation, pioneered by the NIHR Maudsley Biomedical Research Centre, to drive forward improvements in the way that mental health is treated, and provide agile solutions to the challenges presented by the data revolution in healthcare – what we call 'digital pragmatism'.

Wearables, virtual reality, and other emerging technologies offer the potential to understand clinical disorders in unprecedented detail, and provide a powerful means to innovate in healthcare delivery. At the same time data security presents new challenges for patients and clinicians such as delivering opportunities for self-management and user research in a rapidly changing technological environment and within a climate of increasing economic austerity.

We are grateful that you are able to join us and contribute to what promises to be an inspiring programme of interactive sessions, panel discussions and talks from a wide range of experts, from across academia, the digital industries and clinical organisations.

For any enquiries relating to the CTI please contact Tanya Hardy (CTI Project Manager) via email tanya.hardy@slam.nhs.uk

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The day will be chaired by Professor Matthew Hotopf, Director of the NIHR Maudsley Biomedical Research Centre and Professor of General Hospital Psychiatry.

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<td><strong>WELCOME AND INTRO</strong> &lt;br&gt;Matthew Patrick, Chief Executive, South London and Maudsley NHS Foundation Trust</td>
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<td>09:40 - 10:10</td>
<td><strong>DIGITAL PRAGMATISM</strong> &lt;br&gt;Stephen Docherty, Chief Information Officer, South London &amp; Maudsley NHS Foundation trust and co-chair at the Centre for Translational Informatics, NIHR Maudsley Biomedical Research Centre</td>
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<td>10:10 - 10:40</td>
<td><strong>KEYNOTE</strong> &lt;br&gt;Graham Spittle, IBM Chief Technology Officer Europe &amp; Vice President, Software Group</td>
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<td><strong>SESSION ONE</strong> &lt;br&gt;Choose from: &lt;br&gt;<strong>THE QUEST FOR A SAFE HAVEN IN THE HACKERS’ GALAXY</strong> &lt;br&gt;Adamson 1&amp;2 &lt;br&gt;<strong>mHEALTH</strong> &lt;br&gt;Pilowsky &lt;br&gt;<strong>FROM CONCEPT TO PROTOTYPE</strong> &lt;br&gt;Buddy &lt;br&gt;<strong>DESIGNING THE NEW HEALTHLOCKER</strong> &lt;br&gt;Adamson 3 [30 minute demo: 11:10 - 11:40] &lt;br&gt;<strong>SERVICE USER INVOLVEMENT IN DIGITAL HEALTH, WHY IT MATTERS (AND HOW TO DO IT)</strong> &lt;br&gt;Beguine</td>
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<td><strong>SESSION TWO</strong> &lt;br&gt;Choose from: &lt;br&gt;<strong>HEALTHVR -VIRTUAL REALITY IN HEALTHCARE</strong> &lt;br&gt;Adamson 1&amp;2</td>
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<td><strong>LUNCH (&amp; expo)</strong> &lt;br&gt;Mezzanine &lt;br&gt;Option to join a 30-minute demo of Healthlocker: 13:45-14:15, Adamson 3</td>
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<td><strong>SESSION THREE</strong> &lt;br&gt;Choose from: &lt;br&gt;<strong>BEHAVIOURAL SCIENCE, TECHNOLOGY &amp; SELF-MANAGEMENT</strong> &lt;br&gt;Adamson 1&amp;2 &lt;br&gt;<strong>THE POWER OF DATA VISUALISATION</strong> &lt;br&gt;Pilowsky &lt;br&gt;<strong>APPLIED INTELLIGENCE</strong> &lt;br&gt;Buddy &lt;br&gt;<strong>DESIGNING THE NEW HEALTHLOCKER</strong> &lt;br&gt;Adamson 3 [30 minute demo: 14:20 - 14:50]</td>
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<td>15:40 - 16:00</td>
<td><strong>TRANSLATIONAL INFORMATICS: HOW BIG DATA WILL CHANGE CLINICAL CARE</strong> &lt;br&gt;Matthew Hotopf, Director of the NIHR Maudsley Biomedical Research Centre and Professor of General Hospital Psychiatry</td>
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<td>16:00 - 17:00</td>
<td><strong>BARRIERS TO PRAGMATISM, REAL OR PERCEIVED?</strong> &lt;br&gt;Panel discussions chaired by Shitij Kapur, Executive Dean of The Institute of Psychiatry, Psychology &amp; Neuroscience (IoPPN) &lt;br&gt;Ken J Kubota, Chief Evangelist and Product Manager at the TranSMART Foundation &lt;br&gt;Maneesh Juneja, Digital Health Futurist, MJ Analytics &lt;br&gt;Rob Hayles, Director of Meeting of Minds Collaboration &lt;br&gt;Tim Hubbard, Professor of Bioinformatics, Head of Department of Medical &amp; Molecular Genetics, Director of Bioinformatics King’s Health Partners/King’s College London</td>
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<td>17:00 onwards</td>
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THE QUEST FOR A SAFE HAVEN IN THE HACKERS’ GALAXY

11:10 - 12:10
ADAMSON 1&2

Step into the ‘hackers’ galaxy’ to get an insight in the cybersecurity threats out there and hear from national leads and practitioners on what they are doing to create Safe Havens for data security and online privacy.

A round table chaired by DR MURAT SONCUL, Head of Information Governance, South London and Maudsley NHS Foundation Trust.

11:10 INTRODUCTIONS
MURAT SONCUL
Head of Information Governance, South London and Maudsley NHS Foundation Trust.

Introduction to the session and speakers.

11:15 THE CYBER SECURITY PROGRAMME AT THE HSCIC AND THE NATIONAL PERSPECTIVE
DAN TAYLOR
Head of Cyber Security, HSCIC

CHRIS FLYNN
Cyber Security Services Manager, HSCIC

This talk provides an overview of the national perspective and the HSCIC Cyber Security Programme led by Dan Taylor’s team to support health and social care community by enhancing their cyber security preparedness.

11:40 THE 10 STEPS TO CYBER SECURITY
CLARE SANDERSON
Managing Director, IG Solutions Liverpool

A practical guide to 10-steps to cyber security.

11:55 ROUNDTABLE DISCUSSION
ALL SPEAKERS

A round table discussion with questions from the audience on their practical issues and strategic considerations.
We are witnessing an explosion in technologies such as smartphones, wearable devices and health apps that are capable of streaming real-time information from patients to researchers and care providers. These devices are able to capture a growing range of parameters that include activity, sleep/wake states, skin temperature, heart rate, galvanic skin response and blood oxygen saturation and phone usage habits. The data streamed from devices enables pervasive and continuous remote monitoring throughout the disease continuum, providing insight into what is happening to patients in real time, and also a direct intervention by feeding back to patients. Real-time tracking and automatic processing can present care teams and physicians with information which could potentially lead to life-saving interventions, and optimise care in years, not decades.

The potential of apps, smartphones and wearables as tools for predictive, precision and patient-centred medicine is enormous, but as yet unrealised. Longer-term engagement and usability with these technologies are key challenges to realising this promise. The beliefs and expectations of service users around digital interventions may be very different to those of clinicians and researchers, and listening closely to service users in the development cycle will be essential to success.

The Sleepsight study examined the acceptability and feasibility of a wearable and smartphone intervention in psychosis, focusing particularly on sleep monitoring. This session will review the findings from the study, and explore the perspectives of two participants who took part and have kindly agreed to share their experiences and insights.
FROM CONCEPT TO PROTOTYPE

11:10 - 12:10
BUDDY

In this interactive workshop, get hands on with the design process and experience how you can prototype your ideas. Work in groups to analyse a problem, visualise ideas and learn different tools and techniques to bring these to life!

By the afternoon break, Mindwave’s UI and graphic designer will realise your designs to a high fidelity.

INTRODUCTION TO THE DESIGN PROCESS

11:10
KUMAR JACOB
CEO Mindwave Ventures

An introduction to the creative process to understand how some problems can be solved with the use of digital technology through good design.

THE PROBLEM & USER-LED DESIGN

11:20
KUMAR JACOB
CEO Mindwave Ventures
INDIA PAPPALARDO-STRACHAN
User Interface Designer, Mindwave Ventures

Groups will explore scenarios and seek impactful solutions by understanding the needs of the user.

DESIGN WORKSHOP

11:30
INDIA PAPPALARDO-STRACHAN
User Interface Designer, Mindwave Ventures

Using a range of tools and techniques, you will be supported by the design team to develop a prototype, visualising your idea.

WRAP UP AND FEEDBACK

12:00
KUMAR JACOB & INDIA PAPPALARDO-STRACHAN

SERVICE USER INVOLVEMENT IN DIGITAL HEALTH, WHY IT MATTERS (AND HOW TO DO IT)

11:10 - 12:10
BEGUINE

The involvement of patients/service users in digital health is (at best) a missed opportunity. There are too many solutions for imaginary problems, and too many real problems remaining unsolved. Where involvement occurs, it often happens at the wrong time (after important decisions have been made), at the wrong place, and with the wrong people. This invariably results in either clunky or superficial products (unused, unseen and unloved by their target audience).

In this workshop, we discuss the potential for service user involvement in digital health, within the framework of wider stakeholder involvement. We introduce the nature of this problem, as well as introducing the work of the Meeting of Minds Collaboration (MoMC), a service user-led organisation directed by Rob Hayles. We will discuss the development of stakeholder ‘communities’ which have brought together patients/service users, carers and clinicians with a shared interest in improving lives using technology. We will outline a model for stakeholder involvement which puts patients/service users at the heart of the process, as developers, programmers, designers and ‘end users’.

By the end of this session you will gain a deeper understanding of the potential for involving service users (and their communities) in the development of digital health, going beyond tokenism and into real grassroots development.

11:10
DAN ROBOTHAM
BRC Theme Coordinator for Service User and Carer Involvement

An outline about the failures of healthcare IT and the lack of user involvement.
INTRODUCING THE MEETING OF MINDS COLLABORATION, AND WHY IT MATTERS

ROB HAYLES
Director of Meeting of Minds Collaboration

A discussion of the Meeting of Minds Collaboration so far. An introduction to the projects developed and where these have succeeded.

FUTURE STEPS, HACKDAYS ETC

DAN ROBOTHAM & ROB HAYLES

Where do we want to go from here. What are the next steps, and how can you help us.

Q&A
2016 is the year of Virtual Reality. After years in development we now have major companies – Facebook (Oculus rift), Samsung (GearVR), HTC (Vive), Sony (PlayStationVR), that have announced headsets that are within a consumer price range. Where could this lead to in health – research and clinical applications?

**DR DAVE RANYARD**
CEO, Dream Reality Interactive

Virtual Reality (VR) is the technology of 2016. What have we learned so far and where can we take this technology for the future benefit of us all? This talk will update on the state of the nation and also suggest some ideas for the future.

The decreasing costs and increasing convenience and power of digital media is creating a revolution in healthcare and new technologies are affecting the way we provide and access care. The integration of Virtual Reality (VR) into the computer games industry has contributed to the creation of a much simpler, immersive VR systems. VR enables the assessment of cognitions, emotions and behaviour in an ecologically valid environment. These new developments are generating a new impulse in VR research and a substantial number of studies have been published in recent years. I will discuss the progress of VR within psychological research and therapies.

**Q&A PANEL**

**DR DAVE RANYARD, DR LUCIA VALMAGGIA & KUMAR JACOB**

We are witnessing an explosion in technologies such as smartphones, wearable devices and health apps that are capable of streaming real-time information from patients to researchers and care providers. These devices are able to capture a growing range of parameters that include activity, sleep/wake states, skin temperature, heart rate, galvanic skin response and blood oxygen saturation and phone usage habits. The data streamed from devices enables pervasive and continuous remote monitoring throughout the disease continuum, providing insight into what is happening to patients in real time, and also a direct intervention by feeding back to patients. Real-time tracking and automatic processing can present care teams and physicians with information which could potentially lead to life-saving interventions, and optimise care in years, not decades.
DEEP LEARNING FOR EMBEDDED DEVICES: THE NEXT STEP IN PRIVACY-PRESERVING HIGH-PRECISION MOBILE MENTAL HEALTH TOOLS

NIC LANE
Senior Lecturer, University College London and Principal Scientist, Bell Labs Cambridge

Breakthroughs from the field of deep learning are transforming how sensor data (e.g., images, audio, and even accelerometers and GPS) can be interpreted to extract the high-level information needed by bleeding-edge mental health tools like smartphone apps and wearable devices. Today, the state-of-the-art in computational models that, for example, recognize a face, track user emotions, or monitor physical activities are increasingly based on deep learning principles and algorithms. It is critical that the gains in recognition accuracy and robustness that this variety of models afford become adopted by the ever growing range of available embedded sensor devices. Unfortunately, this is not yet happening; instead in far too many cases, the phones and wearable used for mental health locally process sensor data with machine learning methods that have been superseded by deep learning years ago.

In this talk, I will describe our recent work in developing general-purpose support for deep learning-based inference on resource-constrained devices. Our goal is to radically lower the mobile resources (such as energy, memory and computation) consumed by these modeling techniques at inference time, that currently act as the key bottleneck preventing the widespread use of these algorithms by mobile health systems broadly. The foundation of this research is in the rethinking of how such deep inference algorithms can execute not only to better cope with mobile and embedded device conditions; but also to increase the utilization of commodity processors (e.g., DSPs, GPUs, CPUs) -- now present in devices like watches, glasses and phones -- as well as emerging purpose-built deep learning processors from companies like Nvidia, Qualcomm and Movidius. Ultimately in this work, we aim to completely change how mobile sensor data is processed -- and in turn, what mobile mental health tools are capable of -- in the next generation of embedded and wearable devices.

HOW TO DESIGN FOR REAL PEOPLE

12:15 - 13:15
BUDDY

Far too often ‘experts’ design solutions for people to use without sufficient or any conversations with ‘users’. Sometimes – particularly in health – without even identifying who the users are. Users = anyone who will use the system/solution. Not just ‘service users’ in a mental health context.

So, what is ‘user research’? Is it the same as co-design?
How to take account of user needs in thinking about design solutions?
How to make it real - not just a consultation or workshops without ‘listening’

WHERE DOES USER RESEARCH COME FROM?

ANNA WOJNAROWSKA
Ethnographer - BIS and Mindwave Ventures

“User research” became a popular word in digital service development. But where does it come from? What questions is it trying to answer? How does it differ from traditional requirements gathering and how can it add value on any project? We will learn about user research foundations and listen to an example of the most recent user research project in mental health.

HOW DOES RESEARCH FIT INTO THE DESIGN PROCESS?

IRIA LOPEZ
Service Designer, Mindwave Ventures

What are the next steps for designers? How can they use research findings and how are they implemented in the design process? We will see two project examples that show different ways how research can inform service design.

Q&A
Drop in and discover Healthlocker, CTI’s most recent project.

As a platform that connects service users, clinicians, carers and researchers, Healthlocker will pave the way for more effective and efficient health and care experiences.

Drop in at any time throughout the day and take a few minutes to learn more about its user-led design process, the needs of these four user groups and the next steps for the project.

Alternatively, there will also be a 30-minute demonstration of Healthlocker at several intervals throughout the day. In these sessions, get hands on with the process through which it is being designed and make your contribution to the future of personalised care.

Please note that this room can only accommodate up to 14 people during one session. Please arrive early to avoid disappointment.
BEHAVIOURAL SCIENCE, TECHNOLOGY & SELF-MANAGEMENT

14:20 - 15:20
ADAMSON 1&2

Edward Gardiner and Kris Patel from Warwick Business School’s Behavioural Science Group will discuss and demonstrate work looking at the use of technology in self-management.

They will share insights and findings of what’s been achieved already through behavioural interventions as well as challenges they are facing and aspirations they have with their current research projects.

14:20 | THE ROLE OF BEHAVIOURAL SCIENCE IN SELF MANAGEMENT
EDWARD GARDINER
Behavioural Design Lead, Warwick Business School

Ed will introduce the role and importance of behavioural science in designing products to improve self-management.

14:35 | APPLYING BEHAVIOURAL SCIENCE TO IMPROVE MEDICATION ADHERENCE
KRISHANE PATEL
PHD Student, Warwick Business School

Kris will discuss the application of behavioural insights to medication adherence and the digital interventions he is planning to test with Heart of England NHS Foundation Trust.

14:55 | DEMO OF SMS INTERVENTION
NICK MILWARD
Global Product Director, mGage

Nick will present how SMS & mobile intervention technology can be used to improve medication adherence.

15:10 | Q&A

THE POWER OF DATA VISUALISATION

14:20 - 15:20
PILOWSKY

Today, data visualisation has become a rapidly evolving blend of data and art that is certain to change the healthcare landscape over the next few years. Organisations are now facing the challenge of collating and analysing data quickly, displaying the data in a way that’s meaningful and then creating a way to communicate its’ message. This session will delve into how SLaM is using data visualisation to uncover important narratives around patient demographics and clinical services, how to turn data into a powerful story, best practices and the future potential of data.

14:20 | INTRODUCTION
JEN STIRRUP
Industry Expert

14:25 | 21ST CENTURY DATA VISUALISATION FOR POSITIVE OUTCOMES IN HEALTHCARE
JEN STIRRUP
Industry Expert
TONI-ANN TUSON
Senior Business Intelligence Developer and Data Visualisation Lead, South London and Maudsley NHS Foundation Trust

Data Visualisation has had a long heritage of success in producing positive outcomes for healthcare. For example, Doctor Jon Snow mapped out the spread of cholera in London in the mid 1850s, and Florence Nightingale devised her Rose Diagram to show the Causes of Mortality as part of her work in the Crimean War. Poor data visualisation leads to poor decisions. Stephen Hawking commented recently that each equation he included in A Brief History of Time (1988) would ‘halve the sales’, because it would make the book much more difficult to understand. The aim of a data visualisation solution is to empower the decision maker to make effective decisions by bringing the data closer to them. In this session, the team will demonstrate the relevance of data visualisation today, as a continuation of the long lineage of successful outcomes in data visualisation.
SESSION THREE

14:40

AN INTRODUCTION TO COMMUNICATING THROUGH DATA VISUALISATION

TOBIAS STURT
Creative Director, Graphic (Digital Agency)

ADAM FROST
Content Director, Graphic (Digital Agency)

This exciting talk will introduce how to turn a dataset into a compelling narrative. Graphic will demonstrate some best practice examples from their extensive repertoire. The talk will advise how you can match your data visualisation approach to the needs of your audience and how to keep them engaged using a powerful mixture of storytelling and design, and finally the crucial role of the right team and data in the data visualisation process.

14:20 - 15:20

BUDDY

The design of intelligent systems revolves around the creation of computing systems capable of perceiving and responding to their immediate environments, learning from experience, making appropriate choices given their perceptual limitations and communicating with other interconnected systems. Computational intelligence provides considerable promise for benefiting many aspects of healthcare practice, including disease management, decision support and knowledge discovery among others. Advances in Computational intelligence frameworks, methodologies and tools have been applied to various problems in healthcare as demonstrated by the talks given in this session.

Chaired by ZINA IBRAHIM, Applied Intelligent Systems Lead at the Institute of Psychiatry, Psychology and Neuroscience (IoPPN), King’s College London, & the Farr Insitute of Health Informatics Research, University College London.

14:20

MACHINE LEARNING FOR THE NEXT GENERATION OF HEALTH INFORMATICS

DAVID CLIFTON
Associate Professor of Engineering Science at the University of Oxford, Computational Health Informatics (CHI) Laboratory Group Lead, Oxford

Intelligent healthcare systems based on machine learning are now feasible, including the world’s first FDA-approved physiological monitoring systems based on machine learning, and research outputs that are now used to care for over 20,000 patients every month in the NHS. This talk introduces some of the methods and applications being developed at the Computational Health Informatics (CHI) Lab in the University of Oxford, which exploit “big data” approaches to machine learning that can obtain clinically-actionable information from fusing heterogeneous sources - including wearable sensors, electronic health records, and genomic/proteomic biomarkers.
The past few years have witnessed great efforts to harness the ‘big data’ embedded within the electronic health records (EHRs) for improving operational, financial, and clinical processes and working towards the realisation of the learning healthcare system. However, in contrast to areas of medicine where structured longitudinal quantitative data is available, the landscape of mental health EHRs looks quite different as the records largely comprise free-text narratives. Therefore, deriving actionable knowledge that can be effectively used to supply clinical decision support systems requires extracting semantically-meaningful knowledge from the unstructured narratives. In this talk I will present our ongoing work in NIHR Maudsley BRC, which aims at building an in silico highway - essentially, a knowledge graph centralised ecosystem - from the ‘messy’ EHRs to support decision making in clinical practice. A case study of adverse drug event analytics will be used to illustrate the grand vision. The talk will also introduce our exciting ongoing progress and future plans of reproducing such highways in Kings College Hospital and University College London Hospital.

HONGHAN WU
Postdoctoral Data Scientist, SGDP/NIHR Maudsley Biomedical Research Centre, IoPPN

BUILDING IN SILICO HIGHWAYS FOR DERIVING ACTIONABLE KNOWLEDGE FROM ELECTRONIC HEALTH RECORDS

A brief exploration of the field of Learning Healthcare Systems, looking at the potential use cases, the building blocks that must be put in place and the likely implications of such developments. The presentation will draw on the results of interviews, focus groups and site visits with 60 experts in the field, undertaken for a report that can be found at www.learninghealthcareproject.org

DR TOM FOLEY
PI on The Learning Healthcare Project, Newcastle University

A BRIEF EXPLORATION OF LEARNING HEALTHCARE SYSTEMS
SHITIJ KAPUR
Executive Dean, Institute of Psychiatry, Psychology and Neuroscience, King's College London

Professor. Shitij Kapur, FRCPC, PhD, FMedSci is the Executive Dean and Head of Faculty at the Institute of Psychiatry, Psychology & Neuroscience and the Assistant Principal (Academic Performance) for King’s College London, UK. He moved to London after serving as Canada Research Chair and Professor of Psychiatry at the University of Toronto.

He graduated from the All India Institute of Medical Sciences, did his psychiatric training at the University of Pittsburgh and subsequently completed a PhD and Fellowship at the University of Toronto. His main research interest is in the use of brain imaging, animals models and clinical studies to understand the basis of psychosis, antipsychotics and how to improve them. His work has led to a better understanding of antipsychotic action and its relationship to D2 blockade, has led to the development of the ‘salience’ framework of psychosis and has given rise to the ‘early onset’ hypothesis if antipsychotic action.

Professor Kapur has published over two hundred peer-reviewed papers, he has an H-index of 60, has work has received over 15,000 citations as has made dozens of presentations worldwide, and serves in advisory capacity to public charities and pharmaceutical companies and has received national and international awards including the AE Bennett Award of the Society for Biological Psychiatry, Paul Janssen Award of the CINP and is a Distinguished Fellow of the American Psychiatric Association and the Fellow of the Academy of Medical Sciences, UK. He currently leads NEWMeds, an EU-wide Innovative Medicines Initiative. When away from his work Professor Kapur tries to squeeze in a game of squash or perfect his recipe for the ‘lamb biryani’.

MATTHEW PATRICK
Chief Executive, South London and Maudsley NHS Foundation Trust

Originally trained as an adult psychiatrist at the Maudsley and Bethlem Royal Hospitals, for many years Dr Patrick combined clinical work and developmental research. His published work focused on the development and nature of adult personality and personality disorders, and the role of mental representation in this regard.

During his time at SLaM Dr Patrick has contributed to a complete review of the Trust’s governance and performance processes and structures and has worked closely with the chair to develop the new Trust Board and its members. This work is reflected in the Trust’s rating as ‘Good’ from the CQC, including a very positive assessment of the Trust’s leadership. Dr Patrick remains a Training and Supervising analyst for the British Psychoanalytical Society.

MATTHEW HOTOPF
Director, NIHR Maudsley Biomedical Research Centre

Matthew Hotopf is Director of the NIHR Maudsley Biomedical Research Centre (BRC) at the Institute of Psychiatry, Psychology & Neuroscience, King’s College London. The BRC’s mission is to find improved treatments for people with mental disorders including medicines, psychological therapies, digital technologies and preventive strategies. Matthew was trained in epidemiology at the London School of Hygiene and Tropical Medicine and in psychiatry at the Maudsley. Matthew’s main area of research is in the grey area between medicine and psychiatry, exploring the interaction between mental and physical health. He has worked extensively in areas where mental health relates to other walks of life – including occupational and military health, mental health law, and the wider community.
STEPHEN DOCHERTY

Chief Information Officer, South London & Maudsley NHS Foundation trust and co-chair at the Centre for Translational Informatics, NIHR Maudsley Biomedical Research Centre

Digital Pragmatism

Stephen joined South London and Maudsley NHS Trust in November 2014. Stephen comes from the private sector, having worked in digital marketing between 2012 - 2014, and having an extensive background in the games industry where he spent 10 years managing IT organisations for Sony PlayStation, Electronic Arts & Atari. Prior to this, Stephen spent 11 years in high-tech computer manufacturing, running large departments for Digital Equipment Corporation in Scotland.

Stephen was the Winner of the 2012 IBM Enterprise Scholarship - from which he obtained a Masters in Information Leadership studying at Cass Business School.

Stephen’s current focus is on developing and executing SLaM’s digital strategy and transforming the workforce, and providing real-world digital interventions in mental health and beyond.

Stephen was recently voted no.55 in the UK CIO 100 most influential CIOs, which recognises the most transformative and disruptive CIOs in the UK, driving change in their organisations and leading transformation in their sectors.

GRAHAM SPITTLE

IBM Chief Technology Officer Europe & Vice President, Software Group

Keynote

Graham Spittle was appointed to his present role as CTO and VP, Software Group in January 2010. Previously he held several senior executive positions within IBM; Vice President, Software UKI (UK & Ireland); Vice President, Worldwide Integration Development; Director of the IBM Hursley Laboratory in the United Kingdom, and Director of MQ Development.

Graham joined IBM in 1985 at the Hursley Laboratory and has held professional and managerial positions in Business Operations and Software Development. His roles have included development and strategy responsibility for major IBM products such as CICS and Business Integration Middleware (including the MQSeries family), as well as Business Development responsibilities. From 1995 to 1997 Graham was on international assignment in Software Group located in New York. He has lectured and had articles published on Software Contracting and Intellectual Property.

Graham lives in Hampshire and is married with two children.

In June 2008 Graham was appointed as a Commander of the British Empire (CBE) for his services to industry. Graham received a Masters Degree from Edinburgh University, an Honorary Doctor of Science Degree from Southampton University, and an Honorary Degree from University of Surrey for his contribution to the Technology Strategy Board and for his immensely positive impact on the Higher Education. In addition to his IBM responsibilities, Graham holds a number of external positions.
**ROB STEWART**

Professor of Psychiatric Epidemiology and Clinical Informatics at the Institute of Psychiatry, Psychology and Neuroscience, King’s College London. He has been Academic Lead for the Clinical Record Interactive Search (CRIS) resource since its inception in 2007, and has overseen its substantial expansion as a data resource since then, through a range of external data linkages and natural language processing applications. Rob leads the Clinical and Population Informatics theme at the NIHR Maudsley Biomedical Research Centre and co-directs the Centre for Translational Informatics. His research interests include dementia and late-life mental health, and the interface between physical and mental health. He apologises for not being able to be present at the Digital Pragmatism event because of a long-standing external examiner commitment.

**MURAT SONCUL**

Head of Information Governance, South London and Maudsley NHS Foundation Trust

Dr Murat Soncul completed clinical training in dentistry and worked as an oral surgeon before completing his PhD in 2002 at University College London researching the reliability of healthcare technology to support oral and maxillofacial surgical planning. He joined South London and Maudsley NHS Foundation Trust in 2003 to co-ordinate the e-Health Programme. He currently works as the Head of Information Governance at SLaM and is a member of the Confidentiality Advisory Group at the Health Research Authority. In the past, he served as the Company Secretary and the Chair of the Board of Trustees at the Metro Centre, which is a London-based charity that promotes the health and well-being of all people experiencing issues related to sexuality, identity or gender. Murat’s professional interests include innovative uses of information technology to improve healthcare service delivery and patient experience, fair and lawful use of patient information, and confidentiality, capacity and consent, information security and risk management.

**MATTHEW BROADBENT**

Clinical Informatics Lead, NIHR Maudsley Biomedical Research Centre

Matthew Broadbent started working at NIHR Maudsley Biomedical Research Centre in 2007. Initially Matthew managed the development and implementation of the SLAM BRC CRIS system, which enables academics to access SLAM's clinical data for research purposes in a way that protects the legal and ethical rights of patients. Matthew now manages the BRC’s Clinical Informatics team, which supports day-to-day use of CRIS and provides services including data extraction, natural language process and clinical data linkage. Before working at the BRC Matthew managed the development of SLAM’s electronic record system, the electronic Patient Journey System.

**DANIEL TAYLOR**

Head of Cyber Security, Health and Social Care Information Centre

Dan Taylor is Programme Head for the Cyber Security Programme (CSP) and leads HSCIC Security Operations. The CSP undertake a number of projects to build cyber-security defence across the country, chiefly Dan and his team have brought into operation the CareCERT service which supports the health and social care community by enhancing its cyber security preparedness. CareCERT helps health and care respond to potential threats as cyber security becomes ever more important in our current age of technology. Dan has worked with HSCIC and its forerunner operations since 2010 working at a national level delivering change through a number of nationwide programmes, having previously worked across the NHS in management and leadership roles since 2004.

More recently within HSCIC, he supported the development of the N3 successor, HSCN, developing strategy and security before moving into Security Operations.

**The Quest for a Safe Haven in the Hackers’ Galaxy**

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CLARE SANDERSON
Managing Director, IG Solutions Liverpool
The Quest for a Safe Haven in the Hackers’ Galaxy

Clare Sanderson acts as an independent consultant on all aspects of Information Governance including privacy and confidentiality. She provides advice to a wide range of clients in England including several NHS organisations, an Academic Health Science Network, and third party NHS data processors. Clare is also currently assisting the Health Service Executive in Ireland on a range of IG issues.

Clare was the Executive Director for Information Governance at the Health and Social Care Information Centre for 7 years where she was responsible for the HSCIC’s Guide to Confidentiality and implemented the initiative to strengthen their approach to cyber security. While at the HSCIC she was a member of a number of national committees including the UK Council of Caldicott Guardians and the Care Quality Commission’s National Information Governance Committee.

Clare is a member of the Confidentiality Advisory Group providing independent expert advice to the Health Research Authority for research applications, and the Secretary of State for Health for non-research applications, regarding support for access to patient information without consent under ‘Section 251’.

RICHARD DOBSON
Head of Bioinformatics and co-chair at the Centre for Translational Informatics, NIHR Maudsley Biomedical Research Centre, King’s College London; and Reader in Biomedical and Health Informatics at the Farr Institute of Health Informatics Research, University College London.

Richard is Head of Bioinformatics and co-directs the Centre for Translational Informatics at the NIHR Maudsley Biomedical Research Centre (BRC). His research is motivated towards enabling a “panoramic” view of patients through the integration of genomics data with data derived from patient records, the exposome, social graphs, remote monitoring and imaging to develop strategies for P4 medicine, namely, medicine that is precise, predictive, preventative and participatory. The research has required the extensive use of machine learning, the creation of software tools, development of a hospital development environment and large private cloud infrastructure with safe haven status to enable integration of patient datasets.

NICHOLAS MEYER
Clinical Research Fellow and SPR in Psychiatry

Nicholas Meyer MRCPsych is Clinical Research Fellow at the Institute of Psychiatry, Psychology & Neuroscience, and Specialist Registrar in Psychiatry at the South London and Maudsley NHS Foundation Trust. He is interested in the use of digital resources to improve outcomes in psychiatry, particularly psychosis.

KEN KUBOTA
Chief Evangelist and product manager at the tranSMART Foundation

Ken Kubota is passionate about optimizing neurological health and human performance by developing disruptive health solutions for medical research. As the Chief Evangelist and Business Analyst at the tranSMART Foundation he works with data scientists across pharmaceutical companies to develop future versions of tranSMART’s open source software platform for translational medical research. He served 2 years as the Director of Data Science at the Michael J Fox Foundation where he led the development of a large scale wearable sensor platform for Parkinson’s disease with Intel and was awarded the 2015 BioIT award for a designing a data infrastructure to share clinical data. Ken has also served 10 years as the Managing Director of the Kinetics Foundation, a privately endowed Parkinson’s disease foundation owned by Andrew Grove, former CEO of Intel, and worked with Intel to develop the first home based electronic motor test battery for Parkinson’s disease patients. He has also served as the Director of ITpro Marketing and Advanced Technology Sales systems engineer at Microsoft. Ken has a BS in Electrical Engineering and Computer Science from the University of California at Berkeley and graduated from the Stanford Executive Program at the Stanford University Graduate School of Business.
MAXIMILIAN KERZ
PHD Student, NIHR Maudsley Biomedical Research Centre (BRC)
mHealth

Maximilian graduated from the life science department at King’s College London in 2014, receiving a First Class Honour BSc in Molecular Genetics. During his time as an undergraduate, he discovered his interest for computer science and the subject of data science. He began to apply his programming skills on biological problems within his degree and received the Layton Research Science Award for his bachelor thesis in bioinformatics. After his BSc, Maximilian shifted his focus to computational analyses in order to quantify biological phenotypes and behaviours. Mental illnesses are difficult to monitor and even more difficult to consistently treat. To investigate remote detection of symptomatic behaviour of Schizophrenia patients, Maximilian received a traditionally funded PhD Studentship from the BRC in 2014. Parts of his work have been published in Wired and the Daily Mail. He is expected to complete his PhD in 2017.

AMOS FOLARIN
Senior Software Development Group Leader at NIHR Maudsley Biomedical Research Centre, King’s College London & the Farr Institute of Health Informatics Research, University College London
mHealth

He qualified as a biochemist/molecular biologist (Bristol), and has since worked as a bioinformatician/software developer over the last 13 years (Inpharmatica, Birkbeck, UCL, KCL/SLaM). Joining the NIHR Maudsley Biomedical Research Centre Bioinformatics group in 2012, he took up the role of Software Developer Group Leader with the goal of creating an embedded software development team to drive strategic projects for the BRC-MH. His interests include bioinformatics, mHealth, mobile applications, and clinical informatics. Current work includes developing the RADAR platform for remote patient monitoring using wearable devices, mobile phone sensors and mobile apps, monitoring seasonal infectious diseases, image analysis pipelines for high-content screening, and building a portable next generation sequencing pipeline for Genomics England.

INDIA PAPPALARDO-STRACHAN
User Interface & Graphic Designer, Mindwave Ventures
From Concept to Prototype

India is a User Interface and Graphic Designer at Mindwave Ventures, a social purpose company that enables impact at scale in healthcare through digital technology and data. Having studied Industrial design in London and Graphic design at the Politecnico di Milano, she is experienced in a range of processes to engage people through presentation of information, iconography and visualisation techniques. At Mindwave, India iterates interface designs based on user feedback, accessibility guidelines and best practice. Every project has a different audience with unique needs and expectations. India is particularly interested in creating a distinctive visual for these diverse user groups that can be used across all media, not exclusively an application or website.

KUMAR JACOB
CEO Mindwave Ventures
From Concept to Prototype & HealthVR

Kumar Jacob is the CEO of Mindwave Ventures, a social purpose company that provides the tools and expertise needed to create technological solutions in health and care. He was formerly a Non-Executive Director at South London and Maudsley NHS Foundation Trust and the Chair of Maudsley Charity. Kumar was a Vice President at a game development and software company. He has been a consultant in game development and technology sectors helping clients with their overall business strategy, market assessments, commercialisation plans and financial modelling. Currently, Kumar is the Chair for Age Exchange. He received an MBE for charitable and voluntary services in the 2015 New Year’s Honours list.
DAVE RANYARD
CEO, Dream Reality Interactive

HealthVR - Virtual Reality in Healthcare

Dr. Dave is a self confessed VR pioneer and since February of 2016 is an independent virtual reality developer. Prior to this, Dave was the director of Sony’s London Studio, where he oversaw Sony’s critically acclaimed ventures into the world of virtual reality on PlayStation. Recent demos include The Deep, The London Heist and The Getaway, exhibited around the world at key games industry events such as E3, GDC and Gamescom.

Dave is also an active member of the game development industry, holding positions on the BAFTA Games Committee, the Game Developers Conference (San Francisco) and the Virtual Reality World Congress.

LUCIA VALMAGGIA
Clinical Psychologist, Senior Lecturer – IoPPN – King’s College London

HealthVR - Virtual Reality in Healthcare

Dr Lucia Valmaggia is Senior Lecturer in the Department of Psychology, at the Institute of Psychiatry, Psychology & Neuroscience where she combines teaching with research and clinical work. She is a Consultant Clinical Psychologist in the South London and Maudsley NHS Foundation Trust. Her research focuses on early detection and prevention of mental health problems.

Lucia leads the KCL Virtual Reality (VR) laboratory. She conducts experimental studies using virtual reality to explore the effects of adverse life experiences of the appraisal of social situations and is developing a new virtual reality assisted therapy. For a list of publications please see https://kclpure.kcl.ac.uk/portal/lucia.valmaggia.html

MAX LITTLE
Associate Professor, Aston University - TED Fellow - Visiting Associate Professor, MIT

mHealth2

Max Little (D.Phil, Oxon), Associate Professor of Mathematics, Aston University, UK and Visiting Associate Professor, MIT, USA. P rof. Max Little is an applied mathematician and statistician. He is best known for his multi-disciplinary research, which includes the use of consumer technologies such as telephones and smartphones to detect the symptoms of Parkinson’s remotely.

NIC LANE
Senior Lecturer, University College London and Principal Scientist, Bell Labs Cambridge

mHealth2

Nic Lane holds dual academic and industrial appointments as a Principal Scientist at Bell Labs Cambridge, and Senior Lecturer at University College London (UCL). At Bell Labs he is a member of the Internet-of-Things research group, while at UCL Nic is part of the Digital Health Institute and UCL Interaction Centre. His research interests revolve around the systems and modelling challenges that arise when computers collect and reason about people-centric sensor data. At heart, Nic is an experimentalist and likes to build prototype next-generation of wearable and embedded sensing devices based on well-founded computational models. His work has received multiple best paper awards, including two from ACM UbiComp [2012 and 2015]. Nic’s recent academic service includes serving on the PC for leading venues in his field (e.g., UbiComp, MobiSys, SenSys, WWW, CIKM), and this year he will act as PC-chair of HotMobile 2017. Nic received his PhD from Dartmouth College in 2011.
ANNA WOJNAROWSKA
Ethnographer - BIS and Mindwave Ventures
How to Design for Real People

Anna Wojnarowska is a freelance user researcher currently working at the Department of Business Innovation and Skills where she works on IT transformation for the British government. For the past two years she has been working within the Cabinet Office conducting ethnographic investigations on the daily lives and work practices of civil servants in order to make government services faster, clearer and simpler. She also freelanced for NHS and Mindwave Ventures studying opportunities for various digital services development.

IRIA LOPEZ
Service Designer, Mindwave Ventures
How to Design for Real People

Iria Lopez works in the intersection between creativity, empathy and analysis. She started her career as an ethnographer/researcher and moved into design and innovation 15 years ago. She is now an independent consultant who works as service designer and researcher, both for social impact and commercial projects. Most recent clients include: World Bank, IDE (Cambodia), UK Design Council, EDF, France Telecom, Cabinet Office, BBVA (international bank), EY-Seren (design agency), Method (design agency).

EMILY TULLOH
Service Designer, Mindwave Ventures
Designing the New Healthlocker

Emily is a Service Designer at Mindwave Ventures, a social purpose company who enable impact at scale in healthcare using digital technology and data. Using a range of creative methods, Emily engages stakeholders, iterates ideas and translates user needs into tangible digital experiences. With a background in product design, her passion lies in understanding people, asking the right questions and championing user experience throughout the design and development process. Previously she led the user insight at a tech startup and continues to work with Guy’s & St. Thomas’ NHS Foundation Trust. Emily was noted as one of Design Council’s ‘Ones to Watch’ in 2014.

EDWARD GARDINER
Behavioural Design Lead, Warwick Business School
Behavioural Science, Technology & Self-Management

Ed joined WBS to setup and run a partnership with the Design Council called the Behavioural Design Lab, applying insights and methods from behavioural science to support the design of products and services with a social purpose. He now develops products to support collective action. Before joining WBS, Ed worked for the advertising agency, RKCR / Y&R. He holds an MA in Natural Sciences (Psychology) from the University of Cambridge and an MSc in Cognitive and Decision Sciences from UCL.
KRISHANE PATEL
PHD Student, Warwick Business School
Behavioural Science, Technology & Self-Management
Krishane is a psychologist graduating from the University of Warwick and the University of York. Before starting his PhD, Krishane worked at Imperial College London on behaviour change in obesity and consumer behaviour. He is part of a collaborative group between the University of Warwick and Birmingham’s Heart of England Foundation Trust Hospitals using behavioural science in its applications to health. Krishane is tackling patient’s self-management problems, in the context of medication adherence, using theories from behavioural science, psychology and neuroscience.

NICK MILWARD
Global Product Director, mGage LLC
Behavioural Science, Technology & Self-Management
Nick is mGages global product lead based in London UK, working mainly across Europe & North America. His background is technical and marketing within the digital and mobile space. He has held senior positions at Vodafone, Orange/EE, Daily Mail and now mGage (the mobile engagement company). has co-founded various small companies and is now working with Warwick Business School to support the technology needs of their healthcare studies for medication adherence.

JEN STIRRUP
Industry Expert
The Power of Data Visualisation
Jen is a data strategist and technologist, SQL Server Most Valuable Professional (MVP), founder of Data Relish Ltd, SQLFamily and community advocate, public speaker and blogger, published author of Tableau Dashboard Cookbook and Teched Alumni speaker. Jen is also Director-At-Large (elect) for PASS, holding the Business Analytics Portfolio. She is finishing her first term, and starts her second term in Jan 2016. On each election, she won the election outright with a distinct majority. Specialties: business intelligence, Microsoft SQL Server, Tableau, architecture, data, R, Hadoop, Hive. Jen is passionate about all things data and business intelligence, helping leaders derive value from data.

TONI-ANN TUSON
Senior Business Intelligence Developer and Data Visualisation Lead, South London and Maudsley NHS Foundation Trust
The Power of Data Visualisation
An experienced BI Developer and Information Architecture Designer working for South London and Maudsley NHS Foundation Trust as the Visualisation Lead. Responsible for the delivery and maintenance of reporting products. Toni oversees the end-to-end requirements-gathering, technical development, assurance, product delivery and visualisation of the Trust’s internal and external reporting requests. Toni manages a team of ETL and BI Developers to design and implement the reporting architecture required to support the Trust’s mandatory, contractual, operational and performance monitoring reporting requirements.
TOBIAS STURT
Creative Director, Graphic

The Power of Data Visualisation

Tobias is the Creative Director at Graphic. His experience spans a range of specialities, including: Site build and maintenance, Client-side and Server-side development, Writing, Interactive development, Online adaptation, Concept development, Design, Design Management, Data Visualisation, Seminars & talks, Running and maintaining live interactive experiences.

ADAM FROST
Content Director, Graphic

The Power of Data Visualisation

Adam is the Content Director at Graphic and has previously worked as the Data Visualisation Manager at the Guardian’s Digital Agency. Adam has 15 years’ experience in digital publishing and his clients have included Google, P&G, Nestle, HMRC, SAB Miller, Kantar, Millward Brown and many more.

DAVID CLIFTON
Associate Professor of Engineering Science, University of Oxford

Applied Intelligence in Healthcare

David A. Clifton is Associate Professor of Engineering Science at the University of Oxford and leads the Computational Health Informatics (CHI) Laboratory, after having trained in information engineering at the University of Oxford. CHI Lab focusses on the interface between machine learning and healthcare, in partnership with leading clinicians from the Oxford University Hospitals NHS Trust, and has grown rapidly to over 20 members in the two years since its founding, with support from the Welcome Trust, UK Department of Health, NHS National Institute of Health Research, Engineering & Physical Sciences Research Council, Royal Academy of Engineering, Natural Environment Research Council, and the Bill & Melinda Gates Foundation.

HONGHAN WU
Postdoctoral Data Scientist, SGDP/NIHR Maudsley Biomedical Research Centre, IoPPN

Applied Intelligence in Healthcare

Dr Honghan Wu is a data scientist at the Social, Genetic & Developmental Psychiatry Centre / BRC Bioinformatics of King’s College London. His current research focus is on annotating, analysing and searching large scale healthcare data by utilising Semantic Web and Knowledge Graph techniques. Before his current post, Dr Wu got two Marie Curie Fellowships in two EU IAPP projects of K-Drive (in Aberdeen University, UK) and TEAM (in ELIKO, Estonia). He holds a PhD in computer science from the Southeast University. Dr Wu’s expertise is dealing with huge volume and heterogeneous Semantic Web data, including combining information retrieval and data mining techniques with semantic technologies, including semantic search, summarisation and compression of RDF data, as well as query generation and query answering.

TOM FOLEY
PI on The Learning Healthcare Project, Newcastle University

Applied Intelligence in Healthcare

Tom is a doctor, academic and ex-software engineer. His interest in Learning Healthcare Systems stems from a frustration with the inadequate evidence base that he encounters in his clinical work and the apparent inability of traditional methodologies to bridge the gap. In recent years, Tom has written reports on other healthcare policy issues for the Royal College of Psychiatrists, Centre for Mental Health, NHS England, Academy of Medical Royal Colleges and others. He has held management positions with the Care Quality Commission and Faculty of Medical Leadership and Management and committee and associate positions with Monitor, BMA and GMC. He has also worked as a management consultant for PwC and BDO. Tom is currently a special advisor to the Wachter Review into healthcare IT in the NHS.
Maneesh Juneja is a Digital Health Futurist who explores the convergence of emerging technologies to see how they can make the world a healthier and happier place. In 2016, Maneesh was ranked 7th most influential in Digital Health, and at the beginning of 2015, was ranked 10th most influential in Wearable Technology. In 2012, he left the security of his career at GlaxoSmithKline, to set up his own consultancy, MJ Analytics. In the same year, Maneesh also founded the Health 2.0 London Chapter, which has since become the UK's largest grassroots health tech community. In a career spanning 20 years, Maneesh has worked with data to improve decision-making across a number of industries. From supporting the Whitehall study at University College London, managing the Tesco database at DunnHumby, and most recently, working with the world’s largest U.S. & European patient databases at GlaxoSmithKline R&D. He holds a BSc in Business and Computing.

Zina Ibrahim is the Applied Intelligent Systems Lead at the Institute of Psychiatry, Psychology and Neuroscience (IoPPN), King’s College London, & the Farr Insitute of Health Informatics Research, University College London.

Applied Intelligence

Zina Ibrahim is the Applied Intelligent Systems Lead at the Institute of Psychiatry, Psychology and Neuroscience (IoPPN), King’s College London, & the Farr Insitute of Health Informatics Research, University College London. She received a BSc in Software Engineering and an MSc and a PhD in Artificial Intelligence. Zina’s research interests focuses on addressing the disparity between the large body of theory in Artificial Intelligence and concrete translations into real-world applications, specifically in Healthcare. Her contributions span Bioinformatics and medical informatics, and she currently leads projects using novel computational methodologies to solve pressing issues in clinical care at the South London and Maudsley NHS Foundation Trust [SLaM].

Originally trained in the Construction industry as a programme manager and user-based design specialist in the early 1980’s Rob Hayles is a current mental and physical health patient and created Meeting of Minds and the Meeting of Minds Collaboration as a way of enabling patients to lead their care, treatment and well-being. Rob asked his psychiatric team if he could lead his treatment and his success initiated a Fellowship with NWL CLAHRC to look at the transferability of his methods and how to scale the ideas. He went on to create MoM; a patient owned and run group that looks at all parts of the Patient Pathway to create quality improvements. Knowing that true collaboration and co-creation is the key to success he created MoMC to bring in representatives from all the other stakeholders to reduce waste and increase effectiveness in the Patient, Business and Political Pathways. MoMC has gained NHS Code4Health Community status and Test Bed Innovator status due to their projects in technology as well as research, thinking, methodology, training, data, knowledge transfer and health interventions. MoMC has been asked to meet with the European Brain Council and European Commission to look at deploying their models Europe wide.

Dan Robotham is the co-ordinator of service user and carer involvement within the NIHR Maudsley Biomedical Research Centre. Prior to this he worked as a research manager for the Mental Health Foundation, where he helped to facilitate service user-led research projects. He has an interest in the potential of digital technology and how it can be used to improve health, but he maintains a healthy scepticism about it.
Professor Tim Hubbard is Head of the Department of Medical & Molecular Genetics at King’s College London and is interested in the adoption of personalised medicine in the NHS through the analysis of whole genome sequences combined with phenotype data from electronic health records. He is also Head of Genome Analysis at Genomics England, the company set up by the Department of Health to execute the 100,000 genomes project. Until 2013 he was Head of Informatics at the Wellcome Trust Sanger Institute where he was one of the organisers of the sequencing of the human genome. In 1999 he co-founded the Ensembl project to analysis and provide access to the human genome and from 2007 led the GENCODE project to annotate the structure of all human genes.

"A social purpose company, focussed on developing your ideas into impactful solutions"

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HEALTHTECH WOMEN UK

HealthTech Women UK is the UK branch of an international professional network which aims to support and promote women to be the future leaders in health innovation. The network has a diverse membership base across the NHS, academia, industry, SMEs and government. HealthTech Women UK will be showcasing some of the brilliant mental health startups on the network, such as Psych Apps and Aparito.

KCONNECT

KConnect offers a new stack of multilingual medical text and search services that can help users find best and most relevant medical information available. We provide medical-specific multilingual text processing services, consisting of semantic annotation, semantic search, search log analysis, document classification and machine translation. We can deliver the services either locally on premises or via the cloud.

SH:24

SH:24 is a pioneering online sexual and reproductive health service, delivered in partnership with the NHS. We provide free STI test kits, information and advice - 24 hours a day.

PROTECT

PROTECT is an observational study which is open to volunteers who are over 50 and do not have dementia or any other neurodegenerative condition. Participants provide information about themselves and complete online assessments to measure their abilities such as memory and reasoning. By repeating these assessments each year over the next ten years, we will monitor how they change over the study. Participants will also provide a sample of their DNA through a simple at-home kit to provide a better understanding of what role our genes play in how our brains age and how dementia develops. PROTECT also provides a platform for volunteers to take part in preventative studies, such as playing online Brain Training games, and completing exercise sessions at home with help from online videos.

COGNITION KIT

Cognition Kit is a platform that will enable doctors, scientists and the public to better understand and manage day-to-day brain health. Cognition Kit can be used to measure a range of different cognitive functions: Social Cognition, Memory, Psychomotor Speed, Attention, and Executive Function. Our assessments work on a range of mobile and wearable devices, allowing us to measure cognition in the context of everyday life.

CDLS

Data Linkage is the joining of two or more independent databases that share a common unique variable. The Clinical Data Linkage Service (CDLS) acts as a trusted third party to facilitate secure data linkage in order to improve the secondary uses of data from different sources for observational research. The CDLS have worked on a number of data linkage projects, the majority of which have involved SLam’s mental health case registry, the Clinical Records Interactive Search (CRIS) system. Successful data linkage projects facilitated by the CDLS include linking mental health data from CRIS with Hospital Episode Statistics, the National Pupil Database, Lambeth DataNet, and the Thames Cancer Registry. For more information please contact Amelia Jewell (amelia.jewell@slam.nhs.uk).

CLINICAL RECORD INTERACTIVE SEARCH (CRIS)

The Clinical Record Interactive Search (CRIS) system has been developed for use within the NIHR Maudsley Biomedical Research Centre and Dementia Unit (BRC/U). It provides authorised researchers with regulated, secure access to anonymised information extracted from South London and Maudsley NHS Foundation Trust electronic clinical records system. CRIS helps us to look at real life situations on a large scale which means it’s easier to see patterns and trends, like what treatments work for some and don’t work for others. Applications to access CRIS are closely reviewed, monitored and approved by the CRIS oversight committee which has representation from the Maudsley Caldicott guardian and is chaired by a service user to ensure all research applications comply with ethical and legal guidelines. For more information please contact Matthew Broadbent (matthew.broadbent@slam.nhs.uk).

SIPR Jr - Developing and evaluating interventions for adolescent alcohol use disorders presenting through emergency departments (SIPS jr)

SIPS jr is a NIHR Programme Grant funded study which aims to develop and evaluate interventions for adolescent alcohol use disorders presenting through emergency departments. As part of this research programme we have developed a smartphone based alcohol intervention (SIPS city). The app has been developed by the research team with the technical support of Codelfast Ltd and extensive PPI input. SIPS city is an innovative way of delivering alcohol information and brief advice. It is an offline-capable mobile web app which will work on a variety of platforms (including web browsers) but will be optimised for recent iPhone and Android phones. It has been developed around the concept of a high street where users will be able to navigate/explore, learn facts and figures about alcohol and receive ongoing personalised feedback and support.
NLP

The Natural Language Processing (NLP) work at the BRC involves utilizing NLP to extract useful information from unstructured Electronic Health Record Texts. A number of highly successful applications have been implemented so far, with new ones being continuously developed.

CALL-Me

CALL-Me is Care Augmentation by Location-Linked Messaging, an app developed with HW Comms Ltd, and designed to help people with a complex medical condition receive specialist care on entering an A&E department.

SLaM BIORESOURCE

The SLaM BioResource for Mental Health in collaboration with Guy’s and St Thomas’ Hospital BioResource [both part of the NIHR BioResource] and King’s College Hospital Neurological Services focuses on research into psychiatry and neurology from our local clinical psychiatry and neurology services. Specifically, we have volunteers including people with diagnoses of dementia, schizophrenia, autism, mood and eating disorders as well as epilepsy, motor neuron disease, and neurological sleep and eye disorders. We currently have over 10,000 volunteers with samples stored within the BioResource, and have a goal of collecting 5000 more this year. We also store contact details and are able to re-approach our volunteers to help recruit for other studies, such as clinical trials.