

EVALUATING “CONNECTING FOR HEALTH”: POLICY IMPLICATIONS OF A UK MEGA-PROGRAMME

Panel

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Around the world the implementation of information and communication technology (ICT) is proposed as a way of transforming healthcare, making it “better” (e.g., safer, more accessible, and patient-centred) and more efficient by facilitating the management of healthcare organisations and processes. The implementation of ICT has been a vital component of UK government strategy for the National Health Service (NHS) for at least a decade, most recently expressed in the National Programme for IT (NPfIT) for England, considered to be the biggest non-military initiative of IT implementation in the world and now subsumed in the wider institutional structure of “Connecting for Health” [2].

The National Programme is a 10-year change initiative dating from 2002, which was originally estimated at a procurement cost of £6.2 billion, although recent projections suggest it may cost £20 billion in the end [4]. The aim of the programme is to deliver a “system of systems” supported by a nationwide IT infrastructure and network covering all of the strategic health authorities in England. The critical applications will provide electronic facilities for sharing patient records, booking appointments, transmitting prescriptions, and transferring digital images (e.g., X-rays and scans) and will be supported by ancillary services such as email, online directories, and websites.

The vision of fully informatized health is clinically, economically, socially, and politically attractive, yet no country has found it easy to realize. Many reasons have been put forward for a slow pace of ICT adoption in the UK NHS, including the gap between the government's vision and the realities "on the ground" manifested, for example, by the lack of adequate resources (e.g., skills and technologies), attitudes to ICTs and reforms in general, as well as the complexity of the systems needed.

The panellists will examine the implementation issues surrounding various aspects of the Connecting for Health programme and present policy implications from their research. Each panellist will offer a different perspective on the programme, acknowledging both the diversity of agencies shaping the proposed systems and the multiple loci for decision making and interpretation of the government's vision. To that end, they will address different application areas (e.g., electronic patient records and electronic prescribing), a range of implementation issues (experienced by suppliers, trust managers, and staff) and the diverse expectations of various interested parties (e.g., politicians, government agencies, patient groups, academics, and the press). The presenters will illustrate the issues raised through the use of practical examples drawn from their own research and secondary data available from government publications, academic journals, and other documentary sources. Assuming a 90-minute session, the presentations of the five panellists are planned to take 60 minutes, allowing 30 minutes discussion time at the end.

Panel Presentations

Kathy McGrath

Kathy McGrath will open the panel session. She will provide an introduction to the context and purpose of the Connecting for Health programme as outlined above. She will then draw on her research on the use of an electronic patient record system in a London teaching hospital to suggest why the promising vision associated with this innovation is proving difficult to realize. She will argue that calls for better training and increased efforts to engage the support of staff address no more than symptoms of the issues surrounding the new electronic application. More broadly, NHS trusts are facing a number of operational challenges, including staff shortages, very busy wards, and the need to contain spending, alongside spiralling implementation costs for the information systems mandated by the National Programme. In these circumstances, cutbacks on training and support activities associated with the new applications are a short-term, pragmatic response by trust managers striving to balance their budgets while improving their performance ratings.

Following a brief summary of the policy implications from her work, Kathy will ask each of the other panellists to present their findings on particular aspects of the National Programme.

Jane Hendy

More than 5 years from inception of the NHS National Programme for IT, it is clear that many of original goals have not been realized. Having studied the implementation of the programme from its inception, in four NHS acute hospitals, Jane Hendy will outline the problems encountered and discuss lessons that can be learned from England's experiences.

From interviews with hospital managers over a two year period, Jane will describe organisational factors that have resulted in sub-optimal implementation. In particular, the impact of financial deficits, poor communication between central and local managers, and staff disengagement will be discussed. Staff concerns about the potential outcomes of delayed implementation, such as risks to patient safety and the loss of the programme's original vision, will also be addressed. Lastly, Jane will explore the gap between national policy making and local decision-making, and the difficulty in achieving an appropriate balance of responsibility between government and local healthcare organisations.

Ela Klecun

The prescribing and administration of medicines is one of a number of critical applications within the National Programme which is seen by the UK government as having the potential to transform healthcare through technology. Originally, government strategy was committed to electronic prescribing (EP) in all acute hospitals by 2005 [5], but at present Connecting for Health is asking local service providers to provide a solution to e-prescribing in hospitals by 2008 to 2010. However, EP is at an early stage of development in UK hospitals. Such systems only exist across a whole hospital at a handful of sites, despite the UK being among the world leaders in the introduction of e-prescribing into primary care.

Ela Klecun will describe a study of the deployment of EP systems in two UK hospitals, contrasting their models of implementation and focusing on challenges faced during the introduction and subsequent use of the systems. She will then present some lessons from the studies and suggestions for future implementations. She will argue that acquiring a technology is the start of the process: time and effort are required for it to become embedded into any particular clinical context. Furthermore, as resulting systems span professional boundaries, departments, and (potentially) organisations within and beyond the NHS, their implementation and use require negotiating diverse professional and organisational cultures and different needs and goals.

Leslie Willcocks

Mega-programmes such as Connecting for Health pose management dilemmas since their sheer scale implies that they will not meet initial expectations. Thus, a more realistic approach is required to the assessment of performance than measuring progress against plans and outcomes against targets. Furthermore,

action is required by institutions to engage in more honest public debate about the prospects for such programmes, which will better serve the public interest.

Leslie Willcocks will highlight the characteristics of mega-programmes that make them easy targets for criticism. He will then argue that the supporters and advocates of the UK's National Programme should not be surprised at the criticism currently being levelled since it is a logical consequence of the way they have chosen to play. In offering a pragmatic assessment of what should have been expected, Leslie will draw out the policy implications of his approach to evaluating mega-programmes like Connecting for Health.

Terry Young

Human interaction with various information sources, required during the processes of delivering healthcare, may be viewed in terms of three critical tensions [1, 3]: the local-national tension, the management-clinical tension, and the tension between the interactive (i.e., sharing of data or information) and the interpersonal (i.e., face to face, either physically, or mediated through the IS). Terry Young will explore the impact of these tensions on the UK's Connecting for Health programme and argue that each dimension suggests policy implications.

Terry will examine the national-local tension as a series of debates around where records should be kept, and indeed how the specification, procurement, and installation of IS should be managed. He will address the clinical-managerial tension in the way that many clinical applications simply cannot be installed until the management-based foundational systems are in place, impacting heavily on the drive to provide a range of clinical services uniformly across the country. Finally, he will argue for greater attention to the interpersonal element of healthcare IS provision, opening the way to highly beneficial options in terms of patient-centred and lifelong delivery of care. Terry will present the implications of his work for policy development.

Panellists

Jane Hendy is a Research Fellow at Tanaka Business School, Imperial College, London. Her main interests are the adoption and implementation of complex health service innovations, particularly ICT innovations. Jane worked for 3 years in the Public Health and Policy department of the London School of Hygiene and Tropical Medicine, researching the implementation of the NHS National Programme for IT in acute hospitals. Jane is currently researching the outcome of £100m of government funding aimed at developing telecare (health and social care delivered remotely to the user in their home). The work aims to understand processes and outcomes of developing a mainstream telecare service, with the goal of identifying local and national facilitators and barriers to progress.

Ela Klecun is a lecturer in information systems at the London School of Economics and Political Science (LSE). She holds a Ph.D. in information systems

from the LSE. Her research interests include the implementation and use of health information systems, evaluation of information systems, digital exclusion, and the application of critical theory and actor-network theory in the field of information systems. Ela studied the local implementation of ICT policies and strategies in South London, and reviewed a number of telehealth initiatives around London. More recently she has been involved in an EPSRC/ESRC/MRC sponsored project evaluating electronic prescribing systems at two UK hospitals, and developing evaluation activities, frameworks and methods needed to assess such systems. Ela can be reached by e-mail at e.klecun@lse.ac.uk or through her home page at <http://personal.lse.ac.uk/klecun/>.

Kathy McGrath is a Senior Lecturer in Information Systems at Brunel University in West London. She has extensive experience as an IT practitioner, including 8 years as an IS and management consultant working in the public and private sectors. More recently, she gained an MSc and PhD in Information Systems from the London School of Economics and Political Science. Her teaching and research interests focus on IS innovation and management, and the relationship between information technology and organisational change. Kathy studied the implementation of ICT-based modernization initiatives in the ambulance service, including the changes arising from a government review of ambulance performance standards. She has also been involved in a project evaluating the use of an electronic patient record system at a London teaching hospital. Kathy can be reached by e-mail at kathy.mcgrath@brunel.ac.uk or through her home page at <http://www.brunel.ac.uk/about/acad/siscm/disc/people/all/kathymcgrath>.

Leslie Willcocks is Professor of Technology, Work and Globalization in the Information Systems and Innovation Group, Department of Management at the London School of Economics and Political Science. He has studied major project implementations and IT outsourcing since 1986 including major public sector programmes. In September 2007 he co-edited a special issue for the *Journal of Information Technology* devoted to the NHS National Programme for IT. He has an international reputation for his work on large-scale outsourcing in the private and public sectors and is author of 28 books and over 180 refereed papers on this subject and on IT issues, organisational change and IT management.

Terry Young is Professor of Healthcare Systems at Brunel University in West London. He joined Brunel in 2001 after a career in industry which spanned research to strategy in broadband communications. He is currently the Principal Investigator of two multi-university research projects into healthcare technology and delivery: MATCH and RIGHT. His research interests centre around the processes of care delivery and the technology needed to support it.

References

- [1] Avison, D. & Young, T. (2007). Time to rethink health care and ICT? *Communications of the ACM*, 50(6), 69-74.

- [2] Brennan, S. (2005). *The NHS IT project: The biggest computer programme in the world ...ever*. Oxford: Radcliffe Publishing.
- [3] Connell, N. & Young, T. (2007). Evaluating healthcare information systems through an 'enterprise' perspective. *Information and Management*, 44(4), 433-440.
- [4] National Audit Office. (2006). *The national programme for IT in the NHS*. London: The Stationery Office, 16 June.
- [5] NHS Executive. (1998). *Information for health: An information strategy for the modern NHS 1998-2005*. London: NHS Executive, September.