European Knowledge Tree Group

Developing Digital Transformation of Health and Care for an Ageing Society – The Education Perspective
Report of a Symposium at the House of Lords
Tuesday 22nd November, 2017

INTRODUCTION

Baroness Greengross (principal host) introduced the event by commenting on the makeup of the programme with respect to bringing major stakeholders together, with their ability to facilitate individually and collectively how information technology can be used to transform health and care for the ageing population. In particular she had the wish to ensure that the topic appeared on the relevant agendas in the form of the scope and reach of assistive technologies in their ability to make lives safer and more fulfilled. One final point clearly made was the need for real action in this area. Her main question to the meeting – What will you do to ensure real actions take place?

Peter Saraga, Chairman EKTG, gave great thanks to Baroness Greengross and her staff for supporting this Symposium and leading the event so excellently.

SPEAKER CONTRIBUTIONS

Richard Foggie (EKTG Planning Group, KTN, INNOVATE UK)

Report back, The EKTG Workshop at AAL Forum Coimbra, Portugal; Oct 2017 - Better education and understanding supporting increasing adoption of AAL Solutions in practice.
Suggests that required skills and use be spread across all stakeholders with a key message of not waiting for perfection in developed product/service before rolling out solutions. Instead, iterate solutions in a learning loop that includes appropriate validation and/or verification. A second lesson from the event is to move away from the term 'delivery' – seen as a one-way term and being superseded by 'cooperation' between patients/users and the other stakeholders.

Emma Tebbutt (Technical Officer, WHO Geneva Office)

Using assistive technologies for a healthier Europe
Alerted us to the fact that need for assistive technologies is growing in scope (diversity of products) and market size (two billion people by 2050). Also, only one in ten people have access to required products/services. In offering a '6P' framework, 'people' should be placed at the centre of future thinking and practice. The '6P' framework comprises: people, place, personnel, policy, products, and provision.

Lord Willis (Member, House of Lords and Member, UK Parliament Committee Long-Term Sustainability of the NHS)

What should policy makers do towards a healthier Europe?

Provided a view on the recent House of Lords report on the 'Future Sustainability of our Health and Adult Social Care System'. This report looked ahead 10-15 years and made a stark conclusion - it recognized the rapidly changing demography and the impact that it will have on the epidemiology of changing disease patterns – particularly the increasing prevalence of multi co-morbidities in an ageing population. Acknowledgement was made to the development and adoption of assistive technologies, with importance attached to the effective collection, storage and manipulation of data. The use of data is the key to unlock future healthcare systems – whether it is epigenetics, microbiology, liquid biopsy, robotic surgery, stem cell replacement or domestic care – the effective use of data is paramount.

The Rt Hon Norman Lamb (MP, House of Commons and Chairman, UK Parliament Science and Technology Committee)

How can we encourage policy makers to understand science and technology in an ageing population?
The paradox between the potential to exploit technological and organisational change and the slow speed of uptake and adoption in the UK NHS is well known. From this observation it is clear that incentives do not drive the change process, and perhaps this statement needs to be looked at through a 180 degree lens – that is, re-design the incentives to promote the adoption of technologies. An organisational change that may be worth pursuing to allow early adoption of promising assistive technologies is to merge in some way the underpinning health and social services available to individual patients.

Christiane Brockes (EKTG International Ambassador, Zurich University)

Education of professional staff and end-users
Current challenges were listed that endorsed some of the findings of Emma Tebbutt (see above) in terms of demographic changes and autonomous life. Christiane spoke about her work running courses for Medical, Nursing, GPs, and now Users to maximise practical value of eHealth in work and living. She also expanded on other change challenges that included: lack of professional staff with correct competencies; digitalisation, patient empowerment and their self-management.

Sofia Moreno-Perez (EKTG International Ambassador, EU: RITMACORE Partner, Madrid)

Educating policy makers
Key message was that to produce a mind-set change, policy makers need real-life evidence that goes beyond the production of 'academic' style papers and production of demonstrators without features of scale up parameters. The challenges for policy makers were captured via the perfect storm of an increase in patient demands and decrease in economic resources available to meet those demands. Two solutions were provided to address this situation. First, 'aggregation of purchasing power' through alignment and coordination of key stakeholders may produce an improvement in cost-efficient provision of care. Second, and more radically, change the procurement model to a value-based

approach – which needs a shift from product-based to service-based procurement (*notetaker comment - c.f. the change already seen in the aero industry*). This solution also has the ability to manage risks that may lead to sustainability of the care solution.

Hazel Harper (Innovation Lead – Disease Prevention and Wellbeing, Innovate UK)

Educating to ensure innovation
Hazel described three stands that will lead to success in ensuring innovation: understanding the digital divide; awareness of what is available; and, driving sustainable change. The 'ensuring innovation' agenda is delivered via the Innovate UK 'Digital Health Technology Catalyst', which aligns with the need to address specific (known) market failures and deliver more rapid transformative, cost-effective technologies to patients. Successful projects funded by this scheme must improve patient outcomes, transform healthcare delivery, and enable a more efficient delivery of healthcare at scale.

Josie Tetley (Professor of Nursing, Manchester Metropolitan University)

Technology to promote sexual health and wellbeing
This contribution posed the question, "How are sexual activities and satisfaction linked to health and wellbeing?". Some primary evidence taken from the 'English Longitudinal Study of Ageing' addresses sexual attitudes, activities, problems, satisfaction, and relationships. This is on-going research in which evidence is informing practice in the area. A key question is "How can assistive technologies help?". Given that there is widespread evidence for the increase in numbers of silver surfers, there is a need for digital services to inform, guide and support users in sexual health. In turn, there is potential to overcome barriers that sees this topic discussed more openly, leading to a wider understanding of social needs in the ageing population.

Michael Gordon (EKTG Leadership Group, & Touchpoint)

Issues faced by assistive technology companies
Gordon introduced five interlinked issues faced by companies who want to engage in the assistive technology marketplace. Need for more successful *entrepreneurs* in the assistive technology discipline; need *government support* (see Harper above) to encourage growth in the sector; need timely *investment* to scale up solutions offered; need *education and training* in appropriate digital skills, including alerts to emerging future trends; need *clinical support* to place assistive technologies as integrated components of current and new care pathways.

Ann Williams (Commissioning and Contract Manager, Liverpool City Council)

EU: STOPandGO
Sustainable **T**echnology for **O**lder **P**eople – **G**et **O**rganised. Main goal of this EU funded project is to develop a service procurement template for health and social care applied to older people; at the same time encouraging technical innovation

and scaling up of solutions. Ann reported experience of a 'speed dating' activity between 20 care providers and 50 companies that provide assistive technology solutions. Care providers chose solutions that fit with *existing* business needs. Two examples were given: workflow automation in care management; and use of Internet of Things to monitor patients in their own homes. The latter example provided the options for new models of care by integrating the service provided with registered social landlords. Lessons learned from these experiences included the need for education and training for providers.

Raguraman Padmanabhan (Telehealth/Care Navigators Clinical and Service Lead, East London NHS Foundation Trust)

Issues with innovating services
In looking at eHealth including telehealth/care and education needs, there is a recognition that behavioural changes are needed as well as technological and organisational change. A key findings from experiences is the need for a telehealth code of practice, taking cogniscence of the available *EU Telehealth Code (2014).* With this in place, telehealth can be seen by all stakeholders as an 'assistive' rather than 'replacement' health and care service. The service has been found to be more efficient with the addition of the telehealth – with evidence provided for the cost effective nature when applied to care of pressure areas in sedentary patients.

Michael McGhee (Community Service Director – Adults, Newham)

Issues with managing services
When using eHealth including telehealth as a model for improvement in service, there was an increase in patient engagement and in clinical outcomes – measured respectively as a 10% reduction in 'did not attends' for physiotherapy service and a 50% reduction in the morbidity of pressure ulcers. Such cost effective measures such be applied and extended more widely.

Rupert Hipwell (Director of Population Health Management, Philips)

Population health management
Radical shifts are calling for new care models for health management of entire populations, where these shifts can be described as: increasing consumer engagement in health matters; shift to value-based healthcare; shift of care locations to lower cost settings (from hospital to home). Two major trends can also be seen: industrialisation of care (more efficient care with better outcomes); and, personalisation of care (driving the convergence between professional-based health delivery and end-user cooperative healthcare.

Nick Fahy (Recently, Head of the Health Information Unit, EU DG Health and Consumers, and Senior Researcher, Oxford University) –

Understanding responsibilities for health, cost effectiveness, and healthier citizens
To respond to this topic one can use Europe (and the EU) as a resource. Brexit may be an issue to some, but post-Brexit the commitment will be the same to

access to healthcare, shared standards and legal framework. Connections to Europe will also be retained. A key message to takeaway is the answer to why there is resistance to change – key issue is human rather than technological.

Maggie Ellis (Coordinator EKTG & Lead Academic London School of Economics)

Making Cities SMART -The way forward
Maggie reminded us of the definition of eHealth, including Telecare, Telemedicine, but even more relevant to this Symposium, Health Informatics. The Tallinn Declaration, signed by the UK Government, should lead to greater Digital Services and a Digital future. The recent report 'The Local Authority of the future – where the Citizen comes first' explained cost effectiveness of open records. The SMART CITIES movement has brought The Mayoral Challenge Initiatives with application of SMART approaches including education of their citizens, policy makers, service providers, professionals, local industry, users, their families, and carers. **EKTG Next Steps -** Curriculum design for e-Health delivery**,** for all stakeholders, at locations of choice, via various modes of teaching and learning, to build a sustainable innovation model. Everybody was asked to work with EKTG on these steps.

Alan Willis (EKTG Leadership Group)

SUMMARY and Key messages from presentations
There is little competition in healthcare provision in the UK
There are lots of assistive technologies at different stages of development and deployment
Benefits of assistive technologies are becoming demonstrable
Implement soon in the innovation cycle; iterate solutions if necessary
Place the user (patient) at the centre of activity
Don't hide behind need for Standards!

Peter Saraga (Chairman, EKTG Leadership Group)

Summarise issues; indicate actions
EKTG would like to know what you can undertake to further the awareness of eHealth services within your environment
Summarize issues and possible actions, for your colleagues, policy makers, and others, that will act as a basis for action at both national and individual levels
Support formal education and knowledge for policy makers, professionals, industry, users and their families
Expand knowledge base by supporting need for (continual) education and training
Identify TWO actions to take now!

Ron Summers, EKTG Leadership Group 4th December, 2017