THE CREATIVE INDUSTRIES AND HEALTHCARE

April 2013
THE MARKET OPPORTUNITY

The creative industries cover thirteen sub-sectors and a diverse range of activities, ranging from video games production to performing arts. Taken together, it is estimated that the sector has a turnover of over £36bn and a workforce of 1.5 million. Although certain important linkages between the healthcare sector and the creative industries exist, it is in digital media that possibilities for the development of new products and services and transformative business practices are especially rich.

The UK has one of the strongest and most productive health and medtech industries in the world, contributing to patient well-being as well as supporting growth. The industry is high-tech, innovative and highly diverse, spanning pharmaceuticals, medical technology, residential care and biotechnology. Through the development of innovative medicines, technologies and services, the private and public sector bodies operating in these sectors help people to enjoy better health, well-being and quality of life.

A sector so large and varied provides a huge range of opportunities for creative businesses. The medical technology industry alone in the UK comprises more than 3000 companies with a combined annual turnover of £16bn. The current global market is estimated at £150-170bn with growth to £300bn forecast by 2015.

At the overlap of these two major UK industries there is enormous potential for innovation, improving well-being and developing products and services for a healthcare market which represents approximately 10% of the economy as a whole.
“FOR THE UK’S INTERACTIVE ENTERTAINMENT BUSINESSES, THERE ARE HUGE OPPORTUNITIES TO APPLY THEIR TECHNOLOGICAL AND CREATIVE EXPERTISE IN THE HEALTHCARE SECTOR”

PROFESSOR SARA DE FREITAS, DIRECTOR, SERIOUS GAMES INSTITUTE
Of the UK's total GDP, some £140 billion, was spent on healthcare in 2010, with government funding via the NHS responsible for over 80%.

In 2011/2012, the Medical Research Council spent over £750 million on medical and healthcare research in the UK’s universities, hospitals and businesses.

3/4 of the UK population go online for health information, and >50% use the internet to self-diagnose.
Profound changes in medical treatments, life expectancy, and affluence, mean that the UK population will have to face new challenges in terms of its approach to healthcare. The number of people now surviving serious illnesses is increasing, and going on to live long-term managing chronic diseases. As the UK population lives longer, those diseases associated with an ageing population, such as dementia and osteoarthritis, are becoming more common, alongside increases in life-long health conditions associated with poor lifestyles and diet. It is estimated that over 17 million people in the UK are currently living with a chronic disease, whether it is arthritis, diabetes, depression or heart disease.

It is widely thought that the UK will have to shift towards individuals and families taking more responsibility for their well being, preventing and managing illness, and reducing the demand for costly, medical-based provision. Already, diabetes medication alone accounts for 1 in every 25 prescriptions and is responsible for 8.4% of annual NHS expenditure on drugs, a 40% rise over the last five years. Digital technologies have a vital role to play, and there is an urgent need to develop the tools, products and services that can empower people to better understand and manage their own health.

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TIM KELSEY, NHS NATIONAL DIRECTOR FOR PATIENTS AND INFORMATION
A major priority for sex education policies in the UK is to eliminate incidences of sexual coercion during adolescence, and the negative physical and mental health outcomes associated with it. Engaging young people in such sensitive matters is often challenging, but new attempts are being made to address them through video gaming.

The Serious Games Institute in partnership with health researchers and input from stakeholders developed PR:EPARe, a game using many of the features in console games familiar to teenagers: high-quality 3-D graphics, stylish characters, audio and scoring. The game is designed to support and be managed by teachers, allowing them to select the content, start and stop the game as appropriate and engage the students in group discussions around the issues it raises.

PR:EPARe is being trialed in secondary schools in the West Midlands, accompanied by an impact evaluation on sexual health education outcomes and behaviours. The intention is for the game not only to bring positive improvements against a range of indicators, but also inform a broader range of health education interventions based upon video games design.

www.seriousgamesinstitute.co.uk
Some 80% of British households have internet access, more than 90% of individuals own a mobile phone and 40% of individuals use their mobile phone to access the internet. Given the size of the healthcare market and the growing interest in digital media products, services and tools for health management, the opportunity for innovation and new product development is considerable. This includes developing products already in widespread use such as PCs and phones but also for clinical devices used to monitor peoples’ health, and which if embedded with digital communication functionality have the potential for greatly expanded applications.

Despite the size of the healthcare sector, too few of the UK’s digital media businesses are addressing these creative challenges and commercial opportunities. Although there are innovative digital businesses working in healthcare, it is by no means common, and tools and content are more often produced by individuals, especially those who have direct experience of an illness or condition. Not only are there concerns about the quality and clinical accuracy of such content, the skills of creative professionals are often not being used.

This is a huge missed opportunity. Within the UK’s digital businesses there is world-class expertise in such fields as software engineering, ICT, interactive and interface design, 3-D animation, user-centred design, games development, special effects, script writing, music composition and television production. All of these should be brought to bear alongside clinical knowledge in order to develop digital health products that are able to significantly empower individuals and improve their well-being – and the commercial rewards for being able to do so could be considerable.
An example of how the Creative Industries are driving highly innovative medical interventions is the ‘Computer-based system for avatar therapy’ project lead by Professor Julian Leff and funded by the Wellcome Trust. This project is developing a computer-based therapy aimed at treating people with schizophrenia who suffer with persecutory auditory hallucinations despite drug treatment. The clinical insight for the therapy was developed by Professor Leff who has worked with computer scientists based at UCL. They have combined two commercially available software packages from the video games industry with a specifically developed auditory system to produce an interactive media product which enables each patient to create an avatar of the entity (human or non-human) that they believe is talking to them. A therapist promotes a dialogue between the patient and the avatar in which the avatar progressively comes under the patient’s control. The system has been highly successful in treating an initial group of patients, three of whom ceased to hear voices after many years of distress, and is currently undergoing further development with a larger clinical trial planned for 2013.

www.phon.ucl.ac.uk/project/audhall/

JEREMY HUNT, SECRETARY OF STATE FOR HEALTH
THE CHANGING HEALTHCARE LANDSCAPE

THE RSTRUCTURE OF THE NHS IN ENGLAND FOLLOWING THE HEALTH AND SOCIAL CARE ACT OF 2012 SHOULD PROVIDE OPPORTUNITIES FOR BUSINESSES PROVIDING HEALTHCARE SERVICES, WITH THE ESTABLISHMENT OF NEW PROCUREMENT BODIES

The NHS is the key driver of the UK’s medical and healthcare market, responsible for over 80% of all healthcare spending. The restructure of the NHS in England following the Health and Social Care Act of 2012 should provide opportunities for businesses providing healthcare services, with the establishment of the National Commissioning Board and Clinical Commissioning Groups (CCGs). The CCGs, which are composed of GPs and therefore have a close understanding of patient needs, have a remit to engage with a wide range of suppliers and to contract from across the voluntary and private sectors.

Creative businesses with strengths in user-led design, and who are interested in developing innovative approaches to personalized healthcare, can benefit commercially by engaging with the CCGs. This is particularly the case if they are able to demonstrate that innovation can result in significant cost savings, and relieve budgetary pressures on healthcare delivery without compromising quality.
KYOH was founded in 2010 by digital communications professionals, who already had considerable experience in delivering health education campaigns and change initiatives, and in using new technologies to engage patients and provide support for people to manage their health. They started KYOH recognising that there would be accelerating demand for their expertise brought on by the forthcoming NHS reforms, and a need to use digital design and technology to help people develop the skills to self-care and better able to manage their health. KYOH is two things: a system of support for patients and a smart business tool for health professionals, supplying valuable risk prediction data to clinicians. As such, it provides a single point-of-access to a unique combination of online patient engagement measurement tools and self-care support services. This involves measuring people’s ability to self-manage, making sure people get the self-care support they need, measuring its impact and enabling the data can be used by other people to good effect – such as in the planning of services. Crucially, KYOH supports the open data agenda and is designed to be interoperable with other systems such as telehealth, patient records solutions and other open source applications.
WORKING WITH THE TSB TO MAKE IT HAPPEN

The TSB is committed to promoting innovation and growth in the UK economy, recognising that new products and services arise when specialist knowledge and expertise from different sectors are brought together.

The Biomedical Catalyst Fund aims to invest £180 million in businesses and commercial projects over the next five years that are addressing healthcare challenges. See more at www.innovateuk.org/content/competition/biomedical-catalyst.ashx

Through its Knowledge Transfer Networks, there is an ongoing programme of events, workshops, funding information and other resources that support innovative businesses and entrepreneurs:

Creative Industries KTN
https://connect.innovateuk.org/web/creativektn

HealthTech and Medicines KTN
https://connect.innovateuk.org/web/healthktn

IC tomorrow is a TSB programme which runs a number of funded contests aiming to stimulate innovation in the digital sector. See more at https://connect.innovateuk.org/web/ictomorrow

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Links

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https://connect.innovateuk.org/web/creativektn

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Know Your Own Health
www.kyoh.org

Serious Games and sexual health
www.seriousgamesinstitute.co.uk

Avatar Therapy
www.phon.ucl.ac.uk/project/audhall/

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