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Promoting and Supporting Healthy Living by Design

Gordon Baxter¹, Lisa Dow¹, Stephen Kimani², Nilufar Baghaei³

¹ School of Computer Science, University of St Andrews, St Andrews KY16 9SX, UK
{gdb, lisa}@cs.st-andrews.ac.uk

² Institute of Computer Science, JKUAT, PO Box 62000, 00200, Nairobi, Kenya
stephen.kimani@gmail.com

³ Dept. Of Computing, Unitec Institute of Technology, Auckland 1142, New Zealand
nbaghaei@unitec.ac.nz

Abstract. Chronic diseases are the main causes of premature deaths, and the number of these deaths keeps growing. People often do not understand, however, that by changing their diet and how much they exercise, they can drastically reduce their risk of being affected by chronic disease. The key to moderating people's behaviour lies in raising awareness of the links between lifestyle and chronic disease and in supporting the adoption and maintenance of a healthy lifestyle. Despite rises in global spending on health care, the pressure on resources is growing as people live longer. With people already using technology for medical information, it is an opportune time to develop technologies that can be used to raise public awareness of the links between lifestyle choices and chronic disease, and facilitate behavioural change.

1 Introduction

Worldwide, chronic diseases such as cardiovascular disease, stroke and cancer are the main causes of premature deaths. By 2030 nearly 75% of deaths will be caused by chronic diseases [1]. The majority of these deaths are the result of a small group of personal lifestyle risk factors such as poor diet, tobacco and alcohol use, and lack of exercise. The incidence of these risk factors keeps growing as people adopt diets high in fats, salt and sugars whilst working longer and exercising less.

From 1997 to 2007, health expenditure grew quicker than national income in most OECD countries [2]. Pressure on the increased resources, however, continues to rise as people live longer. Health care sectors are increasingly unlikely to be able to cope with the rising numbers of people falling ill because of their unhealthy lifestyle.

Many deaths could be prevented if people were aware of the links between lifestyle and chronic diseases, and adopted a healthier lifestyle. People already use technology to increase their knowledge of health issues, e.g., in 2009, in the UK, 14% of people had searched the internet for medical information; a figure expected to rise to 37% by 2020 [3]. It therefore makes sense to develop technologies to raise awareness about links between lifestyle and chronic diseases, and to help people adopt and maintain a healthier lifestyle. In addition to being designed to be usable, these technologies must be: attractive (so people want to use them); effective (in promoting and supporting healthy living); and acceptable (by fitting in with people's everyday lives) [4].

2 Goals

This one-day workshop will provide a forum to address current and future issues of designing resources to promote and support healthy living. We want to make learning about, and following a healthy lifestyle enjoyable activities for everybody. This requires an interdisciplinary approach, so we will bring together researchers and practitioners from psychology, health care, computer science, human factors, design and sociology to understand how we can exploit existing technologies (such as gaming [e.g., 5] and Web 2.0 [e.g., 6]), and establish new collaborations to investigate novel ways of promoting and supporting healthy living.

3 Workshop structure

The workshop will comprise a mixture of invited talks, presentations, and discussion sessions, and there will be a session for demonstrations of existing tools. Participants will submit position papers; accepted papers will be included in the workshop proceedings. The workshop will conclude with a general discussion about future directions to maintain the momentum created by the workshop.

4 Participants

The workshop is aimed at researchers and practitioners from all areas with an interest in preventing chronic disease by promoting and supporting healthy living. These areas include, but are not limited to usability, health and social care, health promotion, ubiquitous computing, health informatics and computer gaming.

5 References

1. World Health Organization. Obesity and Overweight. Fact sheet Number 311, (2006), <http://tinyurl.com/ys95a7> (accessed 06/05/11).
2. Organization for Economic Co-operation and Development. Health at a Glance: OECD Indicators, (2009), <http://www.oecdilibrary.org/oecd/content/serial/19991312> (accessed 06/05/11).
3. Future Foundation. The Future of Remote Diagnosis and Prescription Services: An analysis commissioned by Lloyds Pharmacy (2009). <http://tinyurl.com/nmez9p> (accessed 06/05/11).
4. Steele, M. An investigation into the usability of health promotion leaflets. Unpublished MSc thesis, University of St Andrews, (2009).
5. Berkovsky, S., Coombe, M., Freyne, J., Bhandari, D., & Baghaei, N. Physical activity motivating games: Virtual rewards for real activity. In Proceedings CHI 2010, pp. 243-252, ACM Press, New York (2010).
6. Baghaei, N., Freyne, J., Kimani, S., Smith, G., Berkovsky, S., Bhandari, D., Colineau, N., & Paris, C. SOFA: An online social network for engaging and motivating families to adopt a healthy lifestyle. In Proceedings OZCHI '09, pp. 269-272, ACM Press, New York (2009).