

“The Crowd Keeps Me in Shape”: Psychology and the Past, Present and Future of Health Social Machines

Authors
Web and Internet Science Group
University of Southampton
Southampton, UK
{a,b,c,d,wh,nrs}@ecs.soton.ac.uk

ABSTRACT

Health social machines ...

1. INTRODUCTION

Health and well-being is one of the not the ultimate measures of technological progress, as advances in healthcare and medicine quantifiably extend human lifespan, reduce incidences of disease and suffering, and shorten time needed to recover from illness and injury. As such, it is natural to ask how and whether the Internet, and more specifically the Web, has and will

In this position paper, we examine a specific type of technology, the emerging class of *health social machines*, which we define to be on-line, Web, app and sensor-based communities and sites where people communicate to collectively solve health-related challenges at both individual and large scale.

We first examine the emerging landscape of health-related social machines, and identify a set of classes of social machines based on their characteristics and goals. We then examine the goals of these classes, in detail the discussion with an examination of

2. A CLASSIFICATORY ANALYSIS OF EXTANT HEALTH SOCIAL MACHINES

We identified three main objectives of extant, health-related social machines: *behavioural intervention*, *disease management*, and *disease understanding/medical science*.

The first which we refer to as “behavioural intervention social machines” are systems that seek to help individuals achieve health goals by changing their behaviour. Looking purely at Web and device startups, the majority of systems in this space seem to be “fitness social machines”, *preventative wellness* systems that seek to help individuals increase their fitness by either increasing their general activity levels, or by setting specific strength and fitness goals. But other systems include *disease management*, to help seeking

to increase people’s levels of physical activity, for example, in order to increase reduce likelihood of the later onset of conditions associated

Preventative wellness
Disease management
Alzconnected (Alzheimer’s patients)

Table 1: Consolidated constructs of social machines.

2.1 Social pressure and Motivation: Gym Memberships and Personal Trainers

2.2 Present: Channel factors, access, convenience

2.3 Present: Salience and reminders

2.4 Futures: Personalised Activity Diaries

2.5 Futures: Citizen-medicine

3. ACKNOWLEDGMENTS

This work is supported under SOCIAM: The Theory and Practice of Social Machines. The SOCIAM Project is funded by the UK Engineering and Physical Sciences Research Council (EPSRC) under grant number EP/J017728/1 and comprises the Universities of Southampton, Oxford and Edinburgh.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, to republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

Workshop on the theory and practice of social machines @ WWW2013 2013, Rio de Janeiro, Brazil
Copyright 20XX ACM X-XXXXX-XX-X/XX/XX ...\$15.00.