INTRODUCTION

Thesis Statement

- This framework for user controlled knowledge modelling delivers mobile information with the goal of tracking and quantifying a change or growth in knowledge of the subject area, wellness.
- Wellness is used as the domain of information to be tracked for the user by the framework. The domain is a large encompassing area of knowledge and as a result two elements of wellness: physical activity and posture have been used to focus the study.
- Physical activity and posture are inherently linked focal areas as good posture will enable more effective and less demanding physical activity.
- The central thesis is focused on understanding whether certain techniques such as mobile information delivery, user modelling and personalisation and gamification can aid the development of user knowledge.

MOTIVATION

Quantifying your life to offer self-assessment tools

- Mobile and pervasive have become increasingly integrated in the modern world. Mobile phones have become smart phones that are internet enabled over their cellular networks and they have been adopted by people in the western world.

- These devices offer the power and connectivity that affords a new class of application that is more aware and observant of explicit and implicit behaviours.

- Physical inactivity, on the other hand, has been adopted by people as a pandemic and should become a public health priority.
- It is suggested that the prevalence, magnitude of risk and evidence for prevention and control are critical.

Wellness Management

- There is a clear relationship between posture and physical activity. Good posture can dictate how comfortable an individual will be when being physically active.
- The importance of understanding this relationship will paramount to the success of a preventative wellness strategy.

RELATED WORK

Understanding posture & physical activity, user modelling, personalisation, gamification and their role in informing the design of the framework.

POSTURE

- Posture is an important factor in the maintenance of good health. People with poor posture often look unwell and are more likely to portray poor self image.
- Lower-back pain, increase in the incidence of injuries due to the overuse of particular muscles are all caused by poor posture.
- Context-aware mobile devices, that are often equipped with accelerometer sensors, are becoming increasingly prominent in monitoring and logging its user’s environment and behavior.

PHYSICAL ACTIVITY

- Physical activity is often perceived as a basic tenant for the maintenance of a healthy lifestyle.
- Physical inactivity, on the other hand, has recently been labeled as a pandemic and should become a public health priority.
- It is suggested that the prevalence, magnitude of risk and evidence for prevention and control are critical.

GAMIFICATION

- Gamification is a common summary term for the rapid growth of consumer software that takes design cues and inspiration from video games.
- The gamification movement is responsible for game design and interaction elements being used in non-game contexts.

Run Keeper – Quantifying a user’s physical activity

Fish’n’Steps – A Gamified system for physical activity

APPOLLO – KNOWLEDGE MODELLING APP