Human-Computer Interaction (HCI) – Coursework - 1

School of Informatics
University of Edinburgh

Issued on 21 September 2015
Due by 4pm, 12 October 2015

IxD4IoT

The aim of the coursework is to write a technical report on *Interaction Design (IxD) for the emerging Internet of Things (IoT).*

The convergence of three capabilities - sensing (and actuation), processing, and wireless networking - is leading to a new class of products or 'things' with internet connectivity, where the physical world is the primary site of interaction. Interaction Design aims to create and enhance the users' experience through the design of the functionalities and aesthetics of these interactions. Your task is to imagine a hypothetical IoT product and describe the interaction design process for realising it.

The total length of the report should be about 10 pages or around 5000 words, excluding references, and organised in the following sections:

the *Introduction* (~ 2 pages) section should describe your understanding of the ideas of Internet of Things and Interaction Design;

the *Design* section (~ 3 pages) should describe the concept of a hypothetical IoT product, its interaction with the user, and the issues addressed during the interaction design process;

the *Implementation* section (~ 3 pages) should describe how your hypothetical IoT product will be realised - the sensors (actuators), networking protocols, algorithms and software for data/information processing;

and, in the *Conclusions* section (~ 2 pages) you should reflect on the broader context in which data from your IoT product will be used, and how it might possibly interact with information from other sources.

Where possible, you should include diagrams (hand-drawn or computer-generated) to visualise your IoT product, the broader context and the design process.

The intended audience of the report is a reader with basic knowledge of human-computer interaction, who wishes to learn more about this area. Particular attention should be paid to citing useful references to enable the interested reader to find more details.

The report must be your own work. Remember to reference all sources, including websites and do not quote sources verbatim – use your own words.

Submission: The deadline for submission of the printed versions of the report to the ITO is: **4pm, 12th October, 2015**. A postscript (pdf) version of the electronic copy of the report should also be emailed by the deadline to dka@inf.ed.ac.uk with "HCI-1 Assignment" in the subject line of the email.

Assessment:

This coursework constitutes 15% of the overall marks. Marks will be awarded for a well-imagined design, technical feasibility, and clear description.

The assessment and feedback for Part 1 will be available by 2**8th October, 2015**.