

---

## Overview

This sub-discipline is concerned with the competencies involved with the design of processes and information technology systems so that they are adopted and used correctly by humans. In order for information technology systems to be successful and allow the maximisation of their potential benefits, user interaction and the interfaces enabling it must be attractive to all users of the systems.

Human interaction and interface (HCI) design may be undertaken as part of a wider systems design or may be undertaken as the result of a need to improve particular processes and procedures within an information technology system.

Designing for human needs requires particular competencies, both technical and personal and the transferable competencies associated with communication should be a precursor to acquiring competencies in this sub-discipline.

The outcomes of human interaction and interface (HCI) design are used to inform the overall systems design of information technology systems and their implementation.

**Performance criteria**

**Develop and implement the strategy for human interaction and interface (HCI) design activities**

*You must be able to:*

- P1 Design, implement and maintain effective strategy and policies relating to human interaction and interface (HCI) design activities
- P2 Correctly identify any organisational culture and the prevailing culture of the proposed audience/users so that it may inform in human interaction and interface (HCI) design activities
- P3 Correctly identify where there is a need for personalisation of interfaces/interaction to meet the needs of different users, including employees, customers, partners and suppliers
- P4 Source the most appropriate expertise from internal and external individuals and organisations, as appropriate, on ergonomics and other factors such as the prevailing culture of the target audience/users of any IT/technology system, service and/or asset, in order to inform human interaction and interface (HCI) design activities
- P5 Correctly use all relevant human interaction and interface (HCI) design deliverables to update IT/technology architectures as appropriate during human interaction and interface (HCI) design activities
- P6 Make well reasoned decisions on when and how to use external providers of human interaction and interface (HCI) design services, selecting the preferred organisations and negotiating/contracting with them accordingly on behalf of the organisation

**Control effective HCI design activities and their deliverables**

*You must be able to:*

- P7 Regularly monitor the alignment of human interaction and interface (HCI) design deliverables with ergonomics and other factors such as the prevailing behavioural 'norms' of the target audience/users, IT/technology literacy levels and skills of the target users and the target social, operational and environmental conditions in which the system will be used
- P8 Critically analyse how effectively the human interaction and interface (HCI) design supports the target social, operational and environmental conditions in which the system will be used and prevailing behavioural 'norms' of the target audience/users
- P9 Make objective and timely decisions on the appropriateness, accuracy and completeness of any HCI design deliverables and any actions that may be taken in the event of human interaction and interface (HCI) design activities and their deliverables not meeting the business needs
- P10 Take timely and effective action in the event of the deliverables and outcomes of human interaction and interface (HCI) design activities not meeting the business needs and/or being incorrect, incomplete or inadequate

P11 Provide timely and objective advice and guidance to others on all aspects of HCI design activities and their deliverables, including best practice

**Knowledge and understanding**

*You need to know and understand:*

**Develop and implement the strategy for human interaction and interface (HCI) design activities**

- K1 Design
  - K1.1 strategy and policies relating to human interaction and interface (HCI) design
  - K1.2 strategy and policies to ensure the compliance of human interaction and interface (HCI) design and its outcomes with any relevant legislation, regulations and external standards
- K2 Implement and maintain strategy and policies relating to human interaction and interface (HCI) design
- K3 Identify
  - K3.1 the human interaction and interface (HCI) requirements to support the target social, operational and environmental conditions in which the system will be used
  - K3.2 the human interaction and interface (HCI) design requirements to support the prevailing behavioural 'norms' of the target audience/users
  - K3.3 where there is a need for personalisation of interfaces/interaction to meet the needs of different users, including employees, customers, partners and suppliers
  - K3.4 what actions may be taken in the event of the deliverables and outcomes of human interaction and interface (HCI) design being incorrect, incomplete or inadequate
  - K3.5 what actions may be taken in the event of human interaction and interface (HCI) design activities and their deliverables not meeting the business needs
  - K3.6 best practice in human interaction and interface (HCI) design
  - K3.7 organisational culture and the prevailing culture of the proposed audience/users in human interaction and interface (HCI) design activities
  - K3.8 when and how to use external providers of human interaction and interface (HCI) design services
  - K3.9 which external providers of human interaction and interface (HCI) design services to use in any assignment
- K4 Source expertise from internal and external individuals and organisations, as appropriate, on ergonomics and other factors such as the prevailing culture of the target audience/users of any IT/technology system, service and/or asset, in order to inform human interaction and interface (HCI) design activities

- K5 Use
  - K5.1 organisational culture and the current culture of the proposed audience in human interaction and interface (HCI) design activities
  - K5.2 human interaction and interface (HCI) design deliverables to update IT/technology architectures as appropriate during human interaction and interface (HCI) design activities
- K6 Make decisions
  - K6.1 on when and how to use external providers of human interaction and interface (HCI) design services
  - K6.2 as a result of any issues arising during human interaction and interface (HCI) design activities
  - K6.3 to improve the quality and effectiveness of human interaction and interface (HCI) design activities
  - K6.4 on the appropriateness, accuracy and completeness of any HCI design deliverables
  - K6.5 on which external providers of human interaction and interface (HCI) design services to use
  - K6.6 on the results provided by monitoring human interaction and interface (HCI) design activities and their deliverables
  - K6.7 on the actions that may be taken in the event of human interaction and interface (HCI) design activities and their deliverables not meeting the business needs
- K7 Negotiate with external suppliers of human interaction and interface (HCI) design services
- K8 Authorise, agree and contract
  - K8.1 external suppliers of human interaction and interface (HCI) design services
  - K8.2 actions
  - K8.3 approaches
  - K8.4 strategy, policies, plans, procedures, standards, tools and techniques relating to human interaction and interface (HCI) design activities
  - K8.5 decisions
- K9 What are the
  - K9.1 benefits and disadvantages of using external suppliers of HCI design services
  - K9.2 issues involved in outsourcing human interaction and interface (HCI) design activities
  - K9.3 range of approaches for undertaking human interaction and interface (HCI) design and their appropriateness in any IT/technology and business context
- K10 Who are external providers of human interaction and interface (HCI) design services

K11 The importance of having an awareness of organisational culture and an awareness of the prevailing culture of the audience/users in human interaction and interface (HCI) design activities

**Control effective HCI design activities and their deliverables**

*You need to know and understand:*

K12 Monitor

K12.1 the alignment of human interaction and interface (HCI) design deliverables with ergonomics and other factors such prevailing behavioural 'norms' of the target audience/users

K12.2 the alignment of human interaction and interface (HCI) design deliverables with the target social, operational and environmental conditions in which the system will be used

K12.3 the alignment of human interaction and interface (HCI) design deliverables with IT/technology literacy levels and skills of the target users

K13 Review

K13.1 recommendations as a result of human interaction and interface (HCI) design in order to inform system/solution/service design activities

K13.2 and summarise recommendations relating to human interaction and interface (HCI) design to sponsors and other internal and external stakeholders

K13.3 the results from monitoring the alignment of HCI design activities

K13.4 the quality and effectiveness of external providers of human interaction and interface (HCI) design activities

K14 Present the quality and effectiveness of human interaction and interface (HCI) design activities

K15 Analyse

K15.1 the results gained from monitoring the quality and effectiveness of human interaction and interface (HCI) design activities

K15.2 how effectively the human interaction and interface (HCI) design supports the target social, operational and environmental conditions in which the system will be used

K15.3 how effectively the human interaction and interface (HCI) design supports prevailing behavioural 'norms' of the target audience/users

K16 Take action

K16.1 in the event of the deliverables and outcomes of human interaction and interface (HCI) design being incorrect, incomplete or inadequate

K16.2 in the event of human interaction and interface (HCI) design activities and their deliverables not meeting the business needs

K17 advise and guide others on

K17.1 best practice in human interaction and interface (HCI) design

K17.2 all aspects of human interaction and interface (HCI) design

ESKITP4066

## Human Computer Interaction / Interface (HCI) Design Level 6 Role

---

**Developed by** e-skills UK

---

**Version number** 1

---

**Date approved** September 2009

---

**Indicative review date** March 2014

---

**Validity** Current

---

**Status** Original

---

**Originating organisation** e-skills UK

---

**Original URN** 4066

---

**Relevant occupations** Business Analyst; Information and Communication Technology; Software Development

---

**Suite** IT and Telecoms

---

**Key words** HCI