Interaction Design Supervision 1

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1 General

- *Usable* - easy to learn, effective to use, enjoyable experience
- Stages of iterative user centric development

  Requirements

  Quick Design

  Prototype

  Evaluate and refine

  Engineer product

2 Requirements

- Functional Requirements - what the system should do
- Non-functional Requirements - what are the constraints on the development/ system

  Data requuirements

  Environmental requirements

  User characteristics

  Usability goals

  User experience goals

- Two types of requirements analysis

  Socio-technical - such as CUSTOM or requirements development

  Soft Systems Management

Custom Ananlysis

A socio-technical method which is practical to be used in small organisations. Identifies who the stakeholers are:

- *Primary* - people who will directly use the system

- *Secondary* - people who will provide input or receive output from the system but may not directly use it

- *Tertiary* - people who will be affected by the introduction of the system or will influence its purchase, but are not primary or secondary stakeholders.

- *Facilitating* - people involved in the system's design, development and maintenance

Requuirements Analysis

The characteristcs of the identified stakeholders are analysed to develop user centric requirements for the system. Analysis done based on the following terms:

- Aims - what to achieve, how is it measured

- Source of Satisfaction - and also distress

- Knowledge and Skills

- Attitude to work

- Nature of activities - how frequency, how many things each time

- Work-group attributes

- Responsibility - relating to security or privacy

- Working conditions

3 Data Gathering

Aim is to collect *sufficient, relevant* and *appropriate* data about users, their tasks and context of use

- Forms of data gathering: observartion, interviews, focus groups, card sorting, questionnaires, documentation, similar products,

- Types of observation: in the lab, in the field, direct (users talk as they do stuff), indirect (users do stuff and then they explain)

- Card sorting can be open when there are no headings given, or closed where the grouping titles are given

- Interviews can be structured, unstructured, semi structured

Quantative Analysis

- time to complete a task

- card sorting - hierarchical cluster analysis, distance matrix, by eye, similarity rating

- number of errors made

Interaction Design

- Participatory Design - include users in design team as opposed to subjects of analysis outside core design situation

    Work focused

    Collaborative

    Iterative

4 Heuristics

- visibility of system status
- match between system and real world
- user control and freedom
- consistency and standards
- error prevention
- recognition rather than recall
- flexibility and efficiency of use
- aesthetic and minimalist design
- help users recognise and recover from errors
- help and documentation