User Experience (UX)

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+ Introduction

- every product or service that is used by someone creates a user experience: books, ketchup bottles, armchairs, earphones, domestic appliances etc.

- UX is the process of enhancing a users satisfaction with a product or service by improving the usability, accessibility & pleasure provided in the interaction

- when a product or service is being developed a lot of attention goes to defining what it does – UX focuses on how it works

- design is essentially about the people - in designing a system you are trying to solve a problem which your user's may have

DESIGNING THE
PRODUCT

DESIGNING THE
EXPERIENCE

+ Does UX Matter?

- UX is extremely important – if your users experience success:

    - it encourages repeat usage as they are more likely to come back again

    - users are more likely to recommend your product to others

    - ultimately your product achieves it's goals

- UX is therefore a balance between:

    - the goals of your site/app [purpose or what it is you wish to achieve]

    - user needs & behaviours

    - usability/functionality of site/app

+ UX expressed as.....

What is a Good UX

- usable (used by particular individuals for a particular goal)
- helpful
- easy to learn
- accessible
- attractive
- fun, satisfying
- credible
- valuable
- useful
- desireable

What is a Bad UX

- stressful
- confusing
- distracting
- ugly
- inefficient
- inconsiderate
- frustrating

UX versus UI

- UI (User Interface) components:
  - layout (relationship of space to copy – copy pertaining to text & images)
  - colour
  - typography

- UX (User Experience) components:
  - user research (defining your target audience)
    - user stories (personas, scenarios)
  - information architecture/ content strategy
    - content inventory, grouping & labelling, context diagram, flow chart
  - prototype
    - (interaction design & the UI elements - flow of the product) paper prototypes, wireframes, mock-ups
  - test

+ UX as a Discipline

- UX as a discipline originated from usability studies (which describes how easy it is to use a product)

- Honeycomb User Experience (Morville, 1994)

+ Nielsen's 10 Heuristics

- visibility of system status: the system must always keep the users informed about what is going on through appropriate feedback within reasonable time

- match between the system & real world: use concepts, images, phrases that are familiar to users rather than system oriented terms. Follow real world conventions.

- user control & freedom: we often choose the incorrect functions through trial & error tactics [but also through human error] & will need clear & obvious 'escape' routes such as 'redo' or 'undo' or safety nets such as 'do you wish to delete the item…..'

- consistency & standards: follow conventions, don't make user's have to second guess what functions actually do – be specific [click here!]
    - astack@wit.ie

- error prevention: even better than good error messages is a careful design which prevents a problem from occurring in the first place

Nielsen's 10 Heuristics

- recognition rather than recall: make options, actions & objects visible – the user should not have to remember information from one part of a dialogue to another

- flexibility & efficiency of use: allow user's to tailor frequent actions. Where the system can cater for both novice & expert user [menu system versus shortcut key system]

- aesthetic & minimalist design: every extra unit of dialogue competes with the relevant units of information & therefore diminishes the overall effect. Be succinct, use clear signposts, clear naming conventions – in essence clear language

- help user's recognise, diagnose & recover from errors: error messages must be expressed in clear language (no codes), precisely indicate the problem & constructively suggest a solution

- help & documentation: even though it is better if the system can be used without documentation, it may be necessary to provide help & documentation. Any such information should be easy to search, focus on user's task, list concrete steps to be carried out & not be too large

+ UX Accessibility

- the web has become an essential part of our daily lives & everyone needs access to this technology

- web accessibility focuses upon ensuring equivalent access for everyone

- web accessibility addresses all impairments which may be permanent or temporary & include learning and cognition, physical speech, auditory & visual ability

- impairments may affect a user's ability to perceive, understand or physically manipulate an object
  - & can occur for many reasons including medical conditions, injury, the environment or simply old age

+ Barriers to Accessibility

- users may have difficulty perceiving visual things as in the case of blind people or partially sighted people
  - else they may have forgotten their glasses or may be working in a very dark or bright environment

- users may have difficulty perceiving sounds if they are deaf or hard of hearing
  - or working in a noisy environment

- users may have difficulty understanding things if they have a learning impairment
  - else they may have a low level of literacy in the language being spoken
  - else they may be stressed

- users may have difficulty manipulating things if they have a physical disability
  - else they may be injured or it may simply be old age

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Barriers to Accessibility

- users may also be impaired by the technology itself:
    - services delivered through the web require users to have their own technology in the form of smart device, computer, printer etc
    - issue of broadband
    - physical size of hand held devices

- accessibility barriers occur when the design of a technology fails to allow for a variation in a user's ability: this can be as simple as failing to shield a cash dispenser display from sunlight or it could be something more fundamental to the design such as poor choice of colour or size of navigational aids

+ Accessibility Goals

- web accessibility benefits all users:
  - if all users are able to perceive & understand the controls [navigation], instructions & outputs [prompts/menus else money, tickets]
  - if all users are able to reach & manipulate the controls, instructions & outputs
  - if the GUI/UI is consistent across functions, devices & repeated use
  - for users who cannot use a particular service, an equivalent alternative service is available

Additional References

- https://gmazzocato.altervista.org/colourwheel/wheel.php
  - Accessibility Colour Wheel

- http://daprlab.com/ace/
  - ACE: Accessible Colour Evaluator