Module 2

Topics

2.1 Defining the UX, Design Process & Methodology understanding user requirements & goals
Understanding the Business Requirements / goals,
User Research
Mental Models
wire frames
Prototyping
Usability Testing.

User Experience
UX user Experience is the holistic journey users traverse as they use a product. Not only does it include their direct interactions with the products but how it fits in with their overall task completion process.

Design Process & Methodology
UX is an user-based approach & Methodology you aren't expected to get any solution Ultimately it will be the one deciding the goals while user research will provide solutions to reach the goals.

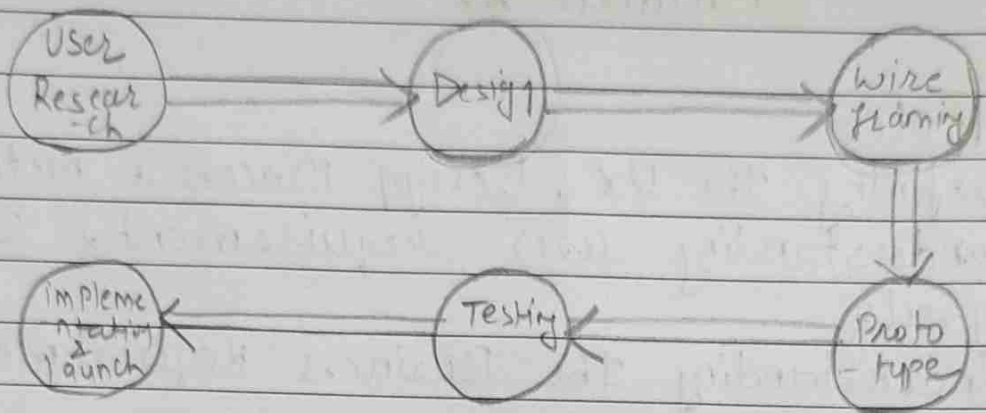

figure. UX Process & Methodology

1) Wire-Framing:

1) User Research:
UX researcher what is the best UX for your website, product or service, most. A UX researcher should always be mindful of the differences in opinions & perceptions towards a good user experience.
Do not make assumption based of your experience. If you do so, you will not be able to understand the need of users.

2) Design:
Users may think of the appearance of a web site or product when we talk about design. It is more important, than & keep in mind that design is more than appreance.

design isnot just what it looks like & feels like; design is how it works. UX design comprises UX elements from information architecture, visual design, interaction design, content strategy to sitemaps.

3) Wire Framing:
Lets say you gathered all the required information from user interviews, built user personas & established user flow now what? now its time to create the whole function visually & now its the time to wireframing it.
Wireframing helps you to evaluate your whole design by visually displaying how the whole function works together. which help you to make better decisions not only for designers but also helpful for developer.
Also, making changes to the wireframe is much easier than making changes to a high-fidelity.

4) Prototype:
Prototype allows the UX researchers to examine & identify any flaws, errors or inconsistencies in overall design &

& experience before it is converted to the actual version by the development team. Also, it is a model of your product that you can use to test how well it works before you put it on the market.

Following point is key benefits of prototyping:

- The prototyping models work best when the system needs to interact with users frequently.
- When this model is used, it usually much easier to find mistake & get fedback from users quickly, leading to better solutions.
- This method gives the users a better understanding of the system being built because it gives them a working model of the system.

4) Testing:

User testing can be conducted with users to validate the design flow & user experience. Testing usually makes up a big bulk of daily routine of UX researchers. It allows them to continuosly improve the product.

i) Heuristic Evaluation: Heuristic evaluation is the expert's reviews of website's usability a/c to a list of usability principles & common heuristics. While UX experts could never replace user testing, they are able to identify any discrepancies from the common heuristics.

ii) Usability Testing:
It is a technique for determining the ease of use of product. This testing is typically performed on real users in order to uncover usability flaws. It is very effective in identifying potential usability or design issues & explore the area of improvent in funtionality. If conducted properly with a defined objective, plan & procedures. all above

iii) A/B Testing & Multivariate Testing:
A/B testing is a method of comparing 2 versions of a website or product to determine which one has better performance. It is usually used to test new or experimental feature update before product get released. Multivariate testing has the same mechanism & fn but it measures multiple variables as suggested.

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by its name. The relationship among these variables is studied to discover the most effective design combination.

6) Implementation:
After the usability testing phase is complete, the products & services are introduced to the market to see if they are successful.
If they don't pass the test they are reconsidered in order to get rid of the problems that were discovered. Iterating is a going process & it's not done until users are fully satisfied.

Understanding User requirements & Goals:
* User needs & Goals is a crucial step in VX. It involves researching & analyzing the target audience to determine their needs, preferences & behaviours. To start, gather as much information as possible about the users, which includes demographics, like age, gender & occupation, as well as their goals & pain points.
* Conducting user interviews & surveys can provide valuable insights into

their user's need & behaviours.

* Create user personas to represent the different types of users. These personas should include information about the user's goals, motivations & pain points.
* Analyze the data & identify patterns & trends. This will help to identify the key needs & goals of the users, as well as any pain points that need to be addressed in the design.
* For creating wireframes & mockups keep the user needs & goals in mind & design the interface to meet those needs.
* Continuously test the design with real users to ensure that it meets their needs & goals. which includes user testing usability testing & A/B testing. Based of the feedback, iterate & improve the design which will ensure that the final product is tailored to the specific needs & goals of the users. By understanding user needs & goals & designing with those needs in mind you can create a user-centered design that will lead to a more positive user Experience & increased engagement

Understanding the Business Requirements / Goals.

Business & other organizations have their own requirements for products, services & system, which you also should model & consider when devising design solutions.

The goals of business, where users & customers work are captured in user & customer personas as well as organizational "personas". It is important to identify the business goals of the orga commissioning the design & developing & selling the product early in the design process.

Business goals include the following:

- Increase Profit
- Increase market share
- Retain customers
- Defeat the competition
- Use resources more efficiently
- Offer more products or services.
- Keep its IP secure.

Understanding User Goals

If personas provide the content for sets of observed behaviors, goals are the drivers behind those behaviors. User goals serve as a lens through which designers must consider a product's functions.

Provide an articulated structure for modeling user responses to product & brand & a rational content for many intuitions long held by professional designers:

* Visceral:

Visceral is the most immediate level of processing. Visceral processing help us make rapid decision about what is good, bad, safe or dangerous.

This is the most exciting types of human behaviour & one of the most challenging to effectively support with digital products.

* Behavioral:

Behavioral is the middle of processing. It manage simple, everyday behaviors. Behavioral processing can enhance inhibit both lower-level visceral reactions & higher-level reflective responses.

* Reflective:
Reflective is the ~~most~~ least immediate level of processing which involves conscious consideration & reflection of past experiences.
Reflective processing can enhance or inhibit behavioral processing but has no direct access to visceral reactions.
This level of cognitive processing is accessible only via memory, not through direct interaction or perception.

Following be the three types of user goals correspond to visceral, behavioral & reflective processing levels.

1) Experience goals
2) End goals
3) Life goals.

1) Experience Goals:
Experience goals are simple, universal & personal. It also express how someone want to feel while using a product or the quality of his or her interaction with the product.

These goals also offer insights into persona motivation that express themselves at the visceral level:

- ~~Fell~~ Feel smart & in control
- Have Fun
- Feel reassured about security & sensitivity.
- Feel cool or hip or relaxed.

2) End Goals:

End goals represent the users motivation for performing the tasks associated with using a specific product.

When you pick up a cell phone or open a document with a word processor, you likely have an outcome in mind. A product or service can help to accomplish such goals directly or indirectly. Interaction designers must use end goals as the foundation for a products behaviors, tasks, look & feel. Following be the examples of end goals:

- Be aware of problems before they become critical
- Stay connected with friend & family.
- Get the best deal.

3) Life Goals:

Life goals represent the user personal aspirations that typically go beyond the content of the product being designed. Life goals describe a persona's long term desires, motivations & self-image attributes which cause the persona to connect with a product.

These goals are the focus of product's overall design, strategy & branding.

- live the good life
- succeed in my ambitions to ... etc.

⇒ User Research:

User Experience research is the systematic investigation of your users in order to gather insights that will inform the design process. With the help of various user research techniques, you'll set out to understand your user's need, attitudes, pain points & behaviour.

Typically done at the start of a project - but also extremely valuable throughout - it encompasses different types of research methodology to gather both qualitative & quantitative data in relation to your product or service.

* Qualitative UX research: results in descriptive data which look more at how people think & feel. It helps to find your user's opinion, problems, reason & motivations.
* Quantitative UX research: On the other hand generally produces numerical data that can be measured & analyzed, looking more at the statistics. Quantitative data is used to quantify the opinions & behaviours of your users.

User research rarely relies on just one form of data collection & often uses both qualitative & quantitative research methods together to form a bigger picture. The data can be applied to an existing product to gain insight to help improve the product experience, or it can be applied to an entirely new product or service.

* The purpose of user research is to put your design project into context which helps to understand the problem you are trying to understand. Throughout the design process, UX research will aid you in many ways. which will help to identify problems & challenges.

* If you don't take the time to engage with real users, its virtually impossible, to know what needs & pain points your design should address.

In anyway user research always come first followed by usability testing & iteration throughout. This is because research makes the design better. The end goal is to create products & services that people want to use.

prototype of the palm pilot than the lump of wood.
If you build a prototype in software, than we required a software tool to support this. Common prototyping tools include micromedia Director, Visual Basic & Smalltalk.

⇒ Wireframes:
The page layout must incorporate all the various navigation systems, each designed to convey a different view of the architecture; all the interface elements required by any functionality on the page.
page layout is covered in detail in a document called a page schematic or wireframe.
Simple line drawing is usually heavily annotated, referring the reader to architecture diagrams or other interaction design, documentation, content requirements or functional specifications.
if a wireframe refers to specific existing content elements, it might provide pointers to where they can be found.

For smaller or less complex products a single wireframe is sufficient to serve as a template for all the screens that will be build.
Multiple wireframes are needed to convey the complexity of the intended result.
People are responsible for strategy, scope & structure can refer to the wireframe to confirm that the final product will the meet their expectations.
Wireframe, being the place where information architecture & visual design come ~~together~~ together, is often a subject of debate & dispute.
The value of wireframe is the way they integrate all 3 elements of the structure plane :-
Interface design through the arrangement & selection of interface elements.
navigation design through the identification & definition of core navigational system.
& information design, through the placement & prioritization of informational components.

⇒ Prototype:

A prototype can be anything from a paper-based storyboard through to a complex piece of software, & from a cardboard mockup to a molded or pressed piece of metal. A prototype allows stakeholders to interact with an envisioned product to gain some experiences of using it in realistic setting & to explore imagined uses.

They are a communication device among team members, & are an effective way to test out ideas for yourself. The activity of building prototypes encourages reflection in design & as recognized by designers from many disciplines as an important aspect of the design process. It serves a variety of purposes: for ex: to test out the technical feasibility of an idea, to clarify some vague requirements, to do some user testing & evaluation or to check that a certain design direction is compatible with the rest of the system development.

Low-Fidelity Prototyping:

A low-fidelity prototype is one that doesn't look very much like the final product for ex: it uses materials that are very different from the intended final version such as paper, board, rather than electronic screens & metal.

It is very useful prototypes it is useful because they tend to be simple, cheap & quick to produce.

This is particularly important in early stages of development

for ex: Prototypes that are used for exploring ideas should be flexible & encourage rather than discourage exploration & modification.

High-Fidelity Prototyping:

High-fidelity prototyping uses materials that you would expect to be in the final product & produces a prototype that looks much more like the final thing.

for ex: A prototype of a s/w system developed in visual Basic is higher fidelity than a paper-based mock up a modeled piece of plastic with a dummy keyboard is a higher-fidelity