Lesson 1: The Importance of User Experience .......................................................................................... 3
THE VALUE OF UX TO USERS ................................................................................................................. 4
BENEFITS OF UX FOR BUSINESS ........................................................................................................... 5
UNDERSTANDING USERS ....................................................................................................................... 6
Lesson 2: The Principles of UX Design ................................................................................................... 8
THE UX DESIGN PROCESS ...................................................................................................................... 9
METHODS AND TOOLS OF THE UX DESIGN PROCESS ........................................................................ 10
UX DESIGN VALIDATION ....................................................................................................................... 10
Lesson 3: Visual Design: Best Practices ................................................................................................ 12
PRINCIPLES OF VISUAL DESIGN ....................................................................................................... 13
COMMUNICATION OF DESIGN ............................................................................................................. 15
VALIDATE WITH THE USER IN MIND .................................................................................................. 17
Lesson 4: UX Patterns for Web Design ................................................................................................ 18
WEB DESIGN THEORY ........................................................................................................................... 19
VALIDATING AND OPTIMIZING THE WEB ............................................................................................ 20
Lesson 1: The Importance of User Experience
THE VALUE OF UX TO USERS

[1.1.1.1], [1.1.1.2] User Experience is the overall experience of a person using a website or application and how it delivers on their expectations and needs,

The overall user experience isn't just limited to the visible surface layer of an interface, of course, the UX is directly affected by the functionality of the system behind it. It's important that the back end processes fully deliver on the expectations of the user. Therefore the back end is very much within the scope of UX considerations.

[1.1.1.3] Don Norman and Jakob Nielsen summed it up when they said “It’s important to distinguish the total user experience from the user interface (UI), even though the UI is obviously an extremely important part of the design. As an example, consider a website with movie reviews. Even if the UI for finding a film is perfect, the UX will be poor for a user who wants information about a small independent release if the underlying database only contains movies from the major studios.

[1.1.1.4], [1.1.1.5] Users use digital products to achieve goals, via a series of tasks. Usability is “The effectiveness, efficiency and satisfaction with which users achieve specified goals in particular environments.”

[1.1.1.6] Nowadays, because consumers have less time and diminishing attention spans, there’s an emphasis on immediacy when it comes to delivery of service. On a website, you only have seconds to make an initial impression before visitors leave. In the context of UX, therefore need to focus on demonstrating value for the user very early in the journey.

[1.1.1.7], [1.1.1.8] Any investment by the user, in terms of time, or the input of personal information, must be quickly reciprocated by the site with something which represents value to the user - such that they perceive a value exchange. Unless a digital product is facilitating these goals through easy to perform tasks, then the user experience will be an adverse one.

[1.1.1.9] The era of digital UX has been around for at least 20 years - when companies like Apple began designing products with users at the center.

The iPhone was unveiled in 2007, promising to be easier to use than any other smartphone on the market. Not only did it deliver on its promise, but it changed the landscape of mobile devices, catapulting Apple into its position as one of the world's most successful companies.

The genius of the original iPhone, arguably, lay in its fusion of superior hardware and software to provide connectivity through a revolutionary capacitive touchscreen, making the physical keyboards of other phones obsolete. Put more simply, it provided a user experience superior to that of any other contemporary phone.

And this inadvertently led to the current focus for many businesses on user experience. If Apple’s emphasis on delivering great user experience was winning them market success and critical accolades, others wanted in on it.

As technology continues to become more ingrained in our lives, we can expect to see UX continue to evolve. The internet is no longer confined to laptops or smartphones—with wearables and even implantables we’re in a state of constant communication. While this
provides opportunities, it means businesses need to constantly update to take those opportunities.

**BENEFITS OF UX FOR BUSINESS**

[1.1.2.1] The value of design is difficult to define, but to place it in financial terms, there's a growing body of evidence that good design delivers shareholder value. One study completed a number of years ago by Motiv Strategies, developed a market index to track how design-focused companies perform relative to the S&P 500 over time. 15 publicly traded US companies made the criteria for inclusion. The results showed that over a 10 year period, design-focused companies outperformed the S&P by an extraordinary 211%.

[1.1.2.2], [1.1.2.3] Usability can mean the difference not just between a product being used successfully or not, but to the overall commercial adoption of the product or service.

A superior user experience leads directly to a competitive advantage because consumers will naturally opt for anything which saves time or makes things easier to use.

[1.1.2.4] And if you're looking for metrics to justify improvements in UX, according to a survey by NNgroup, the average improvement in ROI from usability improvements is 83%.

[1.1.2.5] Many organizations over time use a set formula for the development of digital assets such as the website, however, when not combined with a good understanding of your users, the site is unlikely to gain much traction.

[1.1.2.6] There are many advantages for businesses to placing users at the center of design.

Firstly, as we've seen there is a direct competitive advantage as customers will choose the option which is easiest or saves them time:

Research from Forrester suggests that up to 97% of websites fail when it comes to user experience. 'When compared to their peers, the top 10 companies leading in customer experience outperformed the Standard & Poor's index with close to triple the returns.' Forrester data.

Jeff Bezos of Amazon for example, invested 100 times more into customer experience than advertising during the first year of Amazon.

When you consider the direct returns through more leads and higher conversions, the arguments are even stronger.

One in three users, for example will abandon a purchase because they can't find the right information. 65% of website visitors wouldn't submit a form if too much personal information was required.

Expedia, for example increased earnings by $12m just through dropping 1 field from an online form.
UNDERSTANDING USERS

[1.1.3.1] It’s important to realise that there is an element of design in just about everything consumers use. Don Norman in his book, “The design of everyday things” discusses an example of how a backward teapot is absurd, to highlight that even the most common of products have design elements in them.

Although the teapot might be attractive, shiny and desirable or even a “collector’s item”, it still has features and functionality that simply are wrong for the user. It doesn’t matter how good it visually appears if it doesn’t work.

You could say that humans have always used design to make their life simpler, known as ergonomics. The main point is that we use design to make our lives easier and get things done.

UX design is the amplification of this concept and thought process in the digital world.

[1.1.3.2], [1.1.3.3], [1.1.3.4] When it comes to User Experience, identifying user needs can be complex, especially when it involves more than one audience. However, it’s an important process and should be done through targeted research. It involves being able to empathise with the audience and based on the different demographic and segment preferences.

Understanding users involves empathy (put yourself in their shoes), and that there are lots of things to understand about them such as:

- Demographics
- Segments

Making assumptions at the requirements phase is a common mistake which leads to the final product failing. Make sure design decisions are based on actual data.

[1.1.3.5] Usability testing is a way to see how easy it is to use a product by testing it with representative users.

Typically, users are asked to complete tasks while they are being observed, to see if they encounter problems or experience confusion. The goal is to identify problems and determine the user’s satisfaction with the product.

Usability testing can help determine problems before a product is released, so that changes can be made before launch.

[1.1.3.6] It’s better to make design decisions based on user behavior data rather than psychological profile or persona. In other words, what common behaviors have you observed? Which pages do users spend more time on? Where do they abandon most? What is the average spend during peak periods? This is objective rather than subjective data.

[1.1.3.7] User Experience Design is the process of enhancing user satisfaction with a product by improving the usability, accessibility, and pleasure provided in the interaction with the product.

[1.1.3.8] User Experience design involves multiple different factors and overlaps with many other disciplines - and that’s why it’s often not easy to get right. Aside from the physical elements like digital assets (text, video etc) and information architecture, there are many overlapping areas such as visual design, interaction design and more. A number of these depend on human elements such as user expectation and goals, and so you can see why this requires careful understanding to get right.
It is important to keep the design simple. The core principles of UX Design are - firstly Research based on the users and especially their usage of the product or service. Second, focus on achieving the user’s goals - solving the problems that they have. Thirdly, focus on the details - go deep into the user experience. Also, because you’re working with finite resources, prioritize and do the things which will have the biggest impact on the end goals. Finally, always validate the design with your users before building!
Lesson 2: The Principles of UX Design
THE UX DESIGN PROCESS

[1.2.1.1] As we've seen, there are many factors at play when it comes to UX design. Because of this you need a strong, clear process to follow to get it right. That process involves the following 4 steps:
Discover: This is the ability to understand the requirements of the target market (including the user) from a UX perspective
Define: This is when a UX designer articulates the requirements that need to be introduced
Design: At this stage the UX designer crafts the solution and creates the UX in line with the scope and requirements of the target market
Deliver and optimize: In this final stage the UX is built and tested/evaluated with the target users.

[1.2.1.2] With digital business, things change at a rapid pace – so getting early feedback from users on new products and services is critical, followed by reviewing, changing and iterating as required. This is the agile process required with UX design and ensures the final product is one which is exactly what is required by the market.

It also brings many cost and resource benefits when compared to traditional ‘waterfall’ product development, for example:
50% of development time spent on avoidable rework
10x more expensive to fix problems during development
100x more expensive to fix problems after launch
90% reduction in support costs
50% more accurate estimates
25% reduction in rework

[1.2.1.3] It's important to understand user's psychology - what are their needs, influences, wants and goals, when creating successful UX design. Everything has to be done for a reason (not just for aesthetics). If you can understand the user's psychology you will sell more.

[1.2.1.4] Some key terms associated with UX are as follows:
User Experience Design: is the process of enhancing user satisfaction with a product by improving the usability, accessibility and pleasure provided in the interaction with the product.
Wireframe: a wireframe is used to lay out content and functionality on a page which takes into account user needs and user journeys. Wireframes are used early in the development process to establish the basic structure of a page before visual design and content is added.
A/B testing: comparing two different versions of a web page to determine which gets more clicks, conversions, and engagement.
User Interface Design: focuses on anticipating what users might need to do and ensuring that the interface has elements that are easy to access, understand, and use to facilitate those actions.
Accessibility: focuses on how a disabled individual accesses a website, system or application. Within the United States, Section 508 is the governing principal for accessibility.
Visual Design: focuses on ensuring an aesthetically pleasing interface that is in line with brand goals.

**METHODS AND TOOLS OF THE UX DESIGN PROCESS**

[1.2.2.1] So let’s go through the 4 phases of the UX Design process:

**Discovery phase:**

Discovery is all about identifying, researching and understanding users within user scenarios and typical tasks to see where problems occur. During this phase we can do a lot of initial research to understand this including survey / questionnaires, user interviews, stakeholder interviews, card sorts and tree tests. Using these research methods will give us the insight and rationale behind initial problems, why they happen and how it is affecting the user.

**Define phase**

The define phase is focussing on the drivers and barriers to the project’s success. Before we go any further we need to know the issues that need to be solved in the next stage. During this stage we can complete competitive analysis, persona development, heuristic review and content planning. These outputs give us a clear vision on what steps we need to take in the next stage.

**Development phase**

During the development phase we begin to focus on creating a solution to the problems that have been identified in previous stages. Taking previous research into account we begin to create outputs such as design patterns, journey plans, experience maps, journey maps and wireframes. During this stage you will begin to see solutions arise from the problems we previously identified.

**Deliver and optimize**

The Delivery and optimize stage is all about testing and evaluating your concept so that it is ready for launch. We can compete various testing methods including remote and moderated usability testing, guerrilla testing and A/B split testing. An iterative approach allows the designer to continuously improve the product.

“Design the right thing” is like a cycle. It’s agile. And then “Design the thing right” is another cycle.

**UX DESIGN VALIDATION**

[1.2.3.1] Regularly sanity checking with the user - is very important to removing assumptions about the design. It also ensures stakeholders have an accurate picture of the user's perspective.

[1.2.3.2], [1.2.3.3] Validating UX design is very important as it ensures that the right product is delivered. There is a cost to not involving the user.

There are increased costs of not validating the design before development. So commit to continuous improvement.

[1.2.3.4] There are a range of metrics that you can use, associated with the design, delivery and validation of UX. For example, you can directly measure and compare open rates and conversion - especially for a web UX.
A/B testing, where you compare different versions of a web page to determine which gets more clicks, conversions, and engagement, is also a good way to compare results from one UI with another to determine which is best.

Usability, where users are queried about their overall experience, which is directly influenced by UX is also useful.

Recommendations, like user satisfaction are also a great barometer of UX. It goes without saying that a user that has had a great experience, is more likely to recommend that product or service to someone else.
Lesson 3: Visual Design: Best Practices
**PRINCIPLES OF VISUAL DESIGN**

[1.3.1.1], [1.3.1.2] The purpose of visual design is to improve usability & provide a better UX for the user.

Minimalist design is design at its most basic, stripped of superfluous elements, colors, shapes and textures. Its purpose is to make the actual content stand out and be the focal point.

[1.3.1.3], [1.3.1.4] 'Minimalism' provides many benefits for UX design such as:

- Enhancing layout by using whitespace
- Providing clarity in design
- Reducing cognitive load
- Enhancing readability for the user.

Another important element to consider is inclusive design - where a product is designed so that it can be used by as many people as possible, regardless of age, gender and disability. Aside from the obvious benefit of increasing your customer base, this is very important in many regions for equal opportunity and legislative reasons.

Inclusive design can affect many elements of your UX including Fonts, Localization, User Controls and wording.

[1.3.1.5] Let's look at the important elements to focus on when you’re designing a Graphic. The key things to get right are COLOR, IMAGERY, TYPOGRAPHY and COMPOSITION. We’re going to take a look at each of these elements and what the best practices are when developing high quality visuals for your business.

[1.3.1.6] Firstly, let’s focus on color - it’s used to convey meaning, to attract attention, and also for aesthetics.

The key thing to focus on using colors is the contrast between them, or how well one color stands out from another. Complementary colors like blue and orange, or yellow and purple, for example, provide maximum contrast with one another. You can use contrasting colors to make text stand out from its background in an image for example.

Contrast can also be used to guide user’s actions. If you want to increase ‘click-through,’ make sure there is a strong contrast with your ‘Call-To-Action.’ You can check how colors contrast using a color wheel - shows how colors are related visually, for example, complementary colors are those opposite one another on the color wheel.

Colors also provide visual cues to meaning - for example, a green button usually indicates an affirmative action, like ‘OK’ or ‘Accept’. But if you came across a large ‘Accept’ button which was red, the results could be disastrous.

Colors also trigger powerful emotions. The color Red, for example creates a sense of urgency – so sometimes is used for sales. It also encourages appetite, so is often used in the fast-food sector.

Orange, another warm color, is light and fun, so it might suit a non-corporate brand. Darker shades are associated with autumn, which lends itself to more “earthy” brands.

Green is also an interesting one, which is synonymous with health. You’ll often see it used by brands promoting health products such as pharmaceuticals or food brands.
Blue, on the other hand has a calming effect and is the color of reason, but also of strength, wisdom and trust, which is why it’s used so widely - particularly in the financial sector. It’s a safe option for brands, but brands need to consider if it will help them stand out in their space.

And finally, the color black is associated with luxury and power. While combined with a small amount of a bright color, it can add energy to sophistication. Black is suited to some industries like fashion for example, but not to others like health.

[1.3.1.7]

Let’s think about how to use imagery within your campaigns. First, there are some general points to consider - audiences respond well to images with people – it helps create an emotional connection as campaigns are targeted at real people and imagery needs to reflect that.

Image quality is also very important. People often abandon ecommerce sites because the product image is not a high enough quality to help them make a decision. It negatively affects their impression and you can lose the sale.

So make sure that your images are high definition, or HD - they should also not be pixelated or stretched.

It’s also key to realise that because most web traffic is from a mobile device, to test your graphic to make sure that it still looks okay on smaller dimensions. Otherwise, consider creating a graphic specifically to use on mobile devices.

Here’s a guide to the best image dimensions for different screen sizes:

SHOW DIMENSIONS TABLE IN VIDEO

- Banner Image: 2000px wide and 800px long
- Slider: 1920 px wide and 890 px long
- Icon: 300px wide and 300px long
- Post/ Event: 425 px wide and 220 px long
- Portfolio: 1920px wide and 768px long

Now what about the typography, or fonts that you use? Readers expect to see familiar fonts, such as system fonts – for example, Arial, Helvetica, Roboto, so when picking fonts, try not to do something wildly different. It’s also a good idea to have a maximum of two to three font families on a single webpage, and even fewer for ads and images.

You will also come across “Serif” and “Sans-serif” fonts. A serif is a small decorative line added to a character. The most common serif font is Times-Roman. A common font without serifs, or “sans serif” is Helvetica. Serif fonts are used to improve the readability of text in things like blogs or articles. It’s also important not to use more than 10 words for each line and to use a heavy weight sans-serif font with a larger size for headings. The right emphasis (size and ‘weight’) should be applied to the text according to its priority.

It’s also best practice not to add text directly to an image. Instead work with the web teams to overlay responsive text on the image. The problem with text on the image is that if the image is on mobile then sometimes the text is too small to read.

And remember – it’s the combination of an image with your message and how it’s worded that can mean the difference between success and failure with your audience.
When you know the colors, fonts, and imagery for your image, you need to put them all together - and that’s where composition comes in. Your goal is to make the design as simple and elegant as possible.

By removing clutter and visual noise you help the user to focus on one task at a time.

Once you have taken away all unnecessary information, you should make sure that your content – that is all images, buttons, color, shapes and text – is ordered in a clear and logical way.

Each piece of graphic design content should serve one purpose – when you’re designing, ask yourself: “What is its purpose?” Should it lead the user to do something? Inform them? Nudge them to keep reading? Fill in a form? Or is it just there to give them information?

Even if you have multiple goals in mind for your content, pick one and make sure your design makes it very clear to the end user what the goal is.

Here’s a good example of using ‘whitespace’ on a web page. It doesn’t distract with ads or pop-ups. It prioritizes the right content, showing information that the readers actually want to see.

On the flip side, everyone knows a poor website when they see it. For example, look at this website from 2000. The reason we think this is bad, isn’t because it’s necessarily old but rather because it’s messy and the content is hard to understand.

Simple design should prioritize one thing to be the focal point of the page. A good example is Instagram. The primary purpose is to view the images, and everything else is stripped away.

So to be successful, just remember to focus on getting the key things right - COLOR, IMAGERY, TYPOGRAPHY and COMPOSITION.

COMMUNICATION OF DESIGN

It’s important to constantly communicate good user-centred design principles to key stakeholders both inside and outside your organization. This ensures a consistency throughout projects and products whether designed inside or outside the organization.

It’s also important to push back when other stakeholders may downplay the role of the user.

There is a range of best practises to consider when developing calls to action. First:

1. Make Your CTA Action & Benefit Oriented
   It sounds obvious that your call-to-action should be action-oriented. The more descriptive you are about the action that you want the user to take and what they’ll get by clicking that button, the better.

2. Keep your message consistent
   Secondly, keep your message consistent. To make it clear to your visitor what they should do next and why, make sure your CTA directly reflects the message of the content that came before it.
3. Stand out from the crowd
Thirdly, make sure that the size, contrast and image are differentiated from the rest of the content for them to standout.

4. Putting the CTA in the right location
Fourthly, ensure that each call to action is in the right place to get noticed.

5. Keep testing CTAs
Finally, make sure to constantly test your CTA’s with users to ensure that they remain relevant and are easy to identify and find. Optimization is key.

[1.3.2.3] The range of tools a UX designer can use (to share or collaborate) include:
- *For Design*: Sketch, UXD, Photoshop, Affinity Designer
- *For Prototyping*: Figma, InVision, etc

[1.3.2.4] A key element of visual design is a style guide, which provides guidelines for the way your brand looks in different media, like websites, social media etc. It also provides templates and examples you can use. Whether you’re adding an image to your website, to a social media post or to anything visual at all, using a style guide means you don’t have to guess at colors, images or fonts – they’re all available with plenty of examples in your style guide. The style guide also ensures you will have consistency and adherence with brand guidelines.

[1.3.2.5] Being able to communicate visual design elements and requirements to Developers is important. Some tools you can use include:
- *InVision* communicate design decisions
- *Zeplin* asset & design management / exports

Basicly give developers access to all resources possible. (icons etc).
VALIDATE WITH THE USER IN MIND

[1.3.3.1] The cost of redesigns is expensive. Many organizations design their website, then leave it for a couple of years, as the budget dries up, let it become out of date and then completely redesign it again - this cycle goes on for years, so that most of the time the website isn't optimal.

[1.3.3.2] There are many types of tools available to validate your UX design. Preference tests allow you to choose between design variations by asking users which they prefer. Click testing is a way of testing a prototype design by finding out how easy it is for users to complete a given task.

Heatmap analysis shows you how much time people spend looking at various parts of your site. A heatmap is a visual representation of areas of a page where users spend most time. Warm colors indicate where attention is greatest.

[1.3.3.3] There is a lot of value in optimizing existing design as opposed to completely changing it. Redesigns do not always solve the problem and often result in wasted budget.
Lesson 4: UX Patterns for Web Design
WEB DESIGN THEORY

[1.4.1.1] The main purpose of web design is to make the content findable and usable to visitors. Once they find the relevant content page, each page should have a primary task for the user to complete.

[1.4.1.2] The visual hierarchy is very important to web design - in other words, the order in which users process information. Its function is to allow users process information easily. By using different visual characteristics (e.g. larger fonts on headings, alignment etc) designers can influence user’s perception of the hierarchy.

The “F-pattern” is the way our eyes move when we read content online, scanning the page in this order:

- First, across the top of the page to read important headlines
- Then, down the left side of the page to view numerals or bullet points
- Lastly, across the page again to read bolded text or sub-headlines

[1.4.1.3] Responsive Web Design is a web development approach that creates dynamic changes for the appearance of a website, depending on the screen size and orientation of the device used to view it.

[1.4.1.4] Responsive Web Design ensures an optimal, consistent approach for users no matter what device.

[1.4.1.5] Accessibility, as we’ve seen is important so that the widest range of consumers can access your products or service. However, an accessible website is also one of the easiest ways to do business for many people with disabilities, for instance, people who cannot read print material, people who have difficulty going to a physical store or mall, and others.

Web accessibility also benefits people without disabilities, for example: people using mobile phones, smart watches, smart TVs, and other devices with small screens, different input modes, older people with changing abilities due to ageing, people with “temporary disabilities” such as a broken arm or lost glasses, people with “situational limitations” such as in bright sunlight or in an environment where they cannot listen to audio, people using a slow Internet connection, or who have limited or expensive bandwidth.

[1.4.1.6] The Information architecture is the website content/functionality and their organization and structure.

Sticky navigation is a fixed navigation menu on a webpage that remains visible and in the same position as the user scrolls down and moves about a site.

Page headers sit at the top of each page and provide a consistent user experience by ensuring the core navigation remains the same across the site.

Progress bars display the progress of a task (which may take time) and are implemented with a couple of lines of web script.

[1.4.1.7] One of the areas you need to consider on your site is ‘friction’ for users, particularly with forms - friction is points on the customer journey that they may find difficult or confusing and which therefore reduce conversion rates.

There are a number of ways to reduce friction including: having clear calls to action, intuitive forms and labels, clear messaging and also providing validation on form fields. A good example of form validation is on a New User page - checking whether a username exists before the user tries to create the new user record.
[1.4.1.8] You will also find that using templates, libraries and design patterns is a very practical way to help create a consistent UX, as well as helping when you're working with 3rd party web developers.

[1.4.1.9] Some of the results of poor web design can be distracting ads or too many popups. It's also possible to have too many Calls-to-action on a page, so that the user becomes confused - the calls-to-action are competing with each other. Similarly, dark patterns are an example of poor web design where companies try to trick users into doing things they might not otherwise do, such as buying insurance with their purchase or signing up for recurring bills.

This is related to GDPR, in that you must clearly provide an opt-in to users where any personal data is involved - you cannot rely on users to opt-out. Finally, slow loading sites as previously mentioned may be the result of poorly designed pages.

VALIDATING AND OPTIMIZING THE WEB

[1.4.2.1] There are a number of other areas which may not be obvious when validating your web design. For example page-speed, which clear impacts on User Experience is often an indicator of other issues on the site - such as bugs in code, plugins not updated or images which have not been compressed.

This especially affects mobile users, who are 3 times more likely to leave a page if it takes longer than 3 seconds to load. Page speed is also a ranking factor for Google!

[1.4.2.2] Browser testing is important across multiple devices.

[1.4.2.3] A/B testing is useful in a number of areas:

- Call-to-actions (CTAs)
- Headlines
- Graphic elements like photos and banners
- Wording/content on landing pages
- Type of promotion or offer
- Pop-ups

[1.4.2.3] Launching a site isn't enough, but having a commitment to continually optimize is key to having a successful website/service. The first stage of the UX design process is all about defining/understanding the problems, but because it's iterative, it doesn't stop. Therefore it's unhealthy to think the designs are perfect.

Amazon and Booking.com are two good examples of sites that are constantly evolving and improving.