



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

DIGITAL MARKETING APPLICATIONS

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COURSE CODE – MKT720

lecture 8



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DESIGNING THE DIGITAL CUSTOMER EXPERIENCE

Chapter at a glance

- **Main topics**
- Designing the information architecture
- Defining site or app requirements
- Designing the user experience
- Mobile navigation
- website navigation

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Designing the information architecture

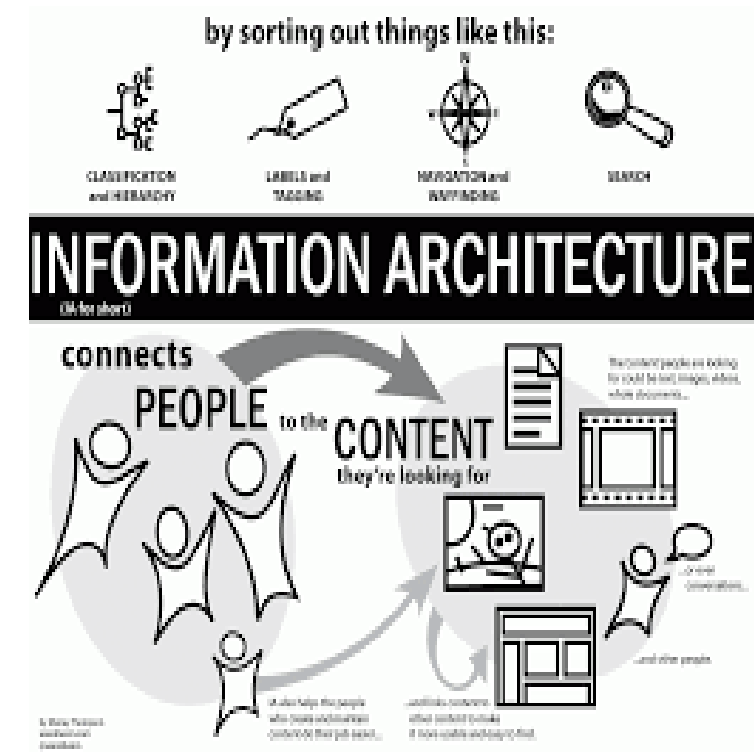
IT is important to recognize that every information system, be it a book or an intranet, has an information architecture. "Well developed is the key here, as most sites don't have a planned information architecture at all. They are analogous to buildings that weren't architected in advance.

Design decisions reflect the personal biases of designers, the space doesn't scale over time, technologies drive the design and not the other way around In their book, which is still the basis for good practice in web design,

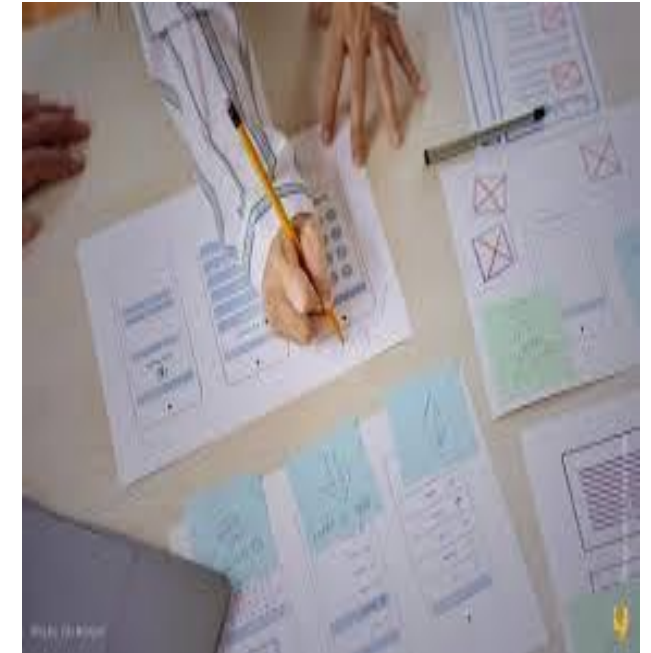
alternative definitions of information architecture:

- 1 the combination of organization, labelling and navigation schemes within an information system;
- 2 the structural design of an information space to facilitate task completion and intuitive access to content;
- 3 the art and science of structuring and classifying websites and intranets to help people find and manage information;
- 4 an emerging discipline and community of practice focused on bringing principles of design and architecture to the digital landscape.

In practice, information architecture involves creating a plan to group information logically- it involves creating a site structure that is often represented as a **site map**. A well-developed information architecture is very important to usability since it determines navigation options and **findability**



A planned information architecture is essential to large-scale websites such as transactional e-commerce sites, media owner sites and relationship-building sites that include a large volume of product or support documentation. Information architectures are less important to small-scale websites and brand sites, but even here the principles can be readily applied and can help make the site more visible to search engines and more usable. It is also important for search engine optimization , since it determines how different types of content that users may search for are labelled and grouped.



The benefits of creating an information architecture include:

- A defined structure and categorization of information will support user and organization goals, i.e. it is a vital aspect of usability.
- It helps increase "flow" on the site - a user's mental model of where to find content should mirror that of the content on the website.
- Search engine optimization - a higher listing in the search rankings can often be used through organizing and labelling information in a structured way.
- Applicable for integrating offline communications offline communications such as ads or direct mail can link to a product or campaign landing page to help achieve direct response, sometimes known as 'web response. A sound URL strategy can help this.
- Related content can be grouped to measure the effectiveness of a website as part of design for analysis,

What is information architecture?

Information architecture (IA) is the science of structuring content as it is applied to news websites or blogs, online stores, booking apps, downloadable software, etc. The goal of information architecture is to classify the content in a clear and understandable way and arrange it according to relations between the content pieces, allowing users to find what they need with less effort. Not applied solely when creating a product from scratch, IA is used in redesign.

Information architecture is a part of interaction design that considers content, context, and users. This means that user needs, business goals, and different types of content must be taken into account while structuring a product's information.



- **User Experience** refers to the feeling users experience when using a product, application, system, or service

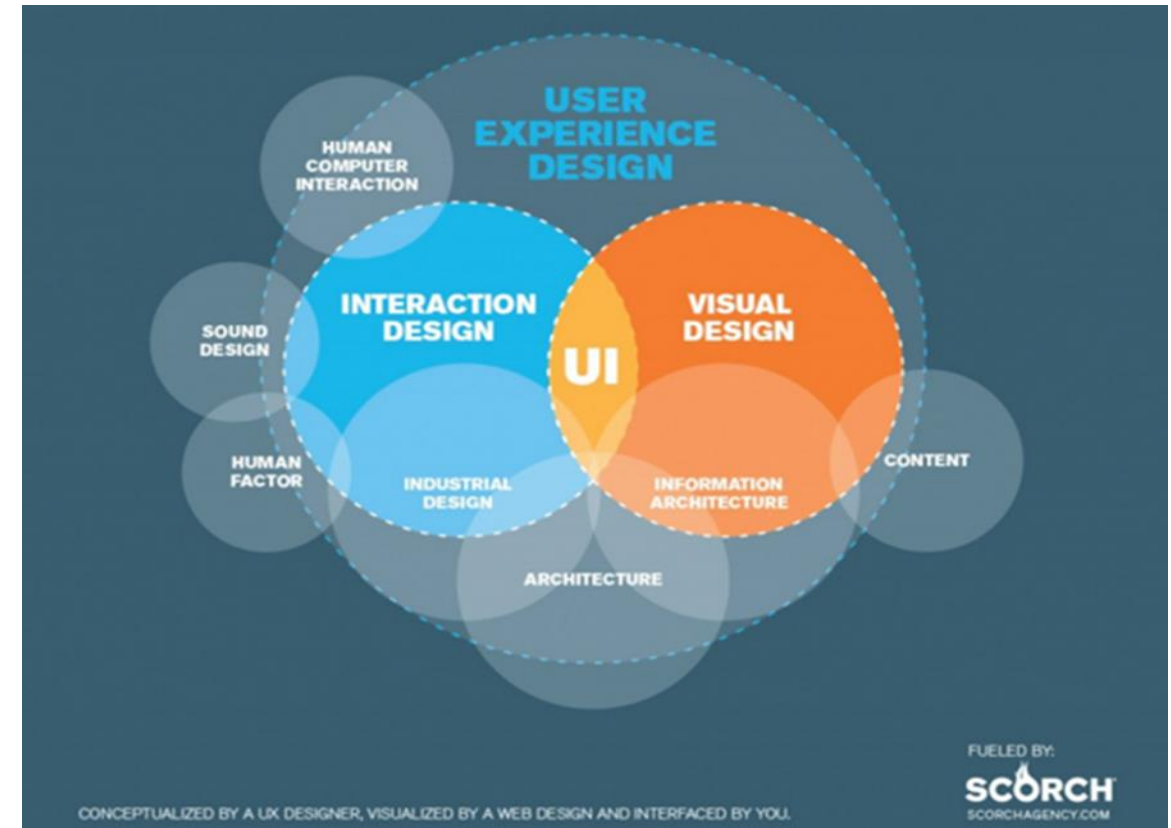
Information architecture vs UX vs UI vs IxD

IA, UX, and UI are closely related and sit under the umbrella of product design concepts, but they are not the same. Check the definitions.

UX or user experience is what users feel when they interact with the product. So, the aim of UX design is to make a product practical, useful, attractive, and so on — in other words, to create a positive experience from using it.

UI or user interface is an important part of UX since it deals with the visual aspect of the product and the interactivity behind it. So, UI design directly impacts UX since appealing graphics and easy, intuitive interaction are integral parts of a smooth user experience.

IA or information architecture refers to organizing and labeling content to make the product usable and understandable, while enhancing user experience. So, in a way, IA design is a foundation of UX.



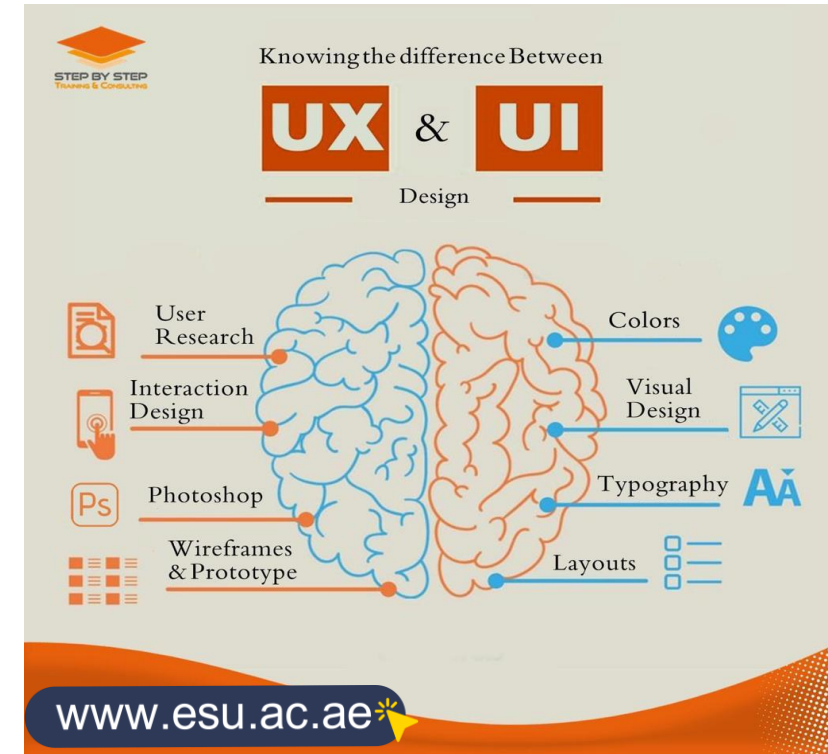
- Information architecture (IA) focuses on organizing, structuring, and labeling content in an effective and sustainable way. The goal is to help users find information and complete tasks.

IXD (Interaction Design)

Definition of IxD: “Interaction Design (IXD) defines the structure and behavior of interactive systems. Interaction Designers strive to create meaningful relationships between people and the products and services that they use, from computers to mobile devices to appliances and beyond. Our practices are evolving with the world.

IxD designer is the people in charge of the websites/apps moving elements & interactions. If you’ve seen a cool animation on a website or app, that made you say wow or that is really cool, that’s the stuff motion designers do.

- ❑ So in an oversimplified and user-friendly nutshell, UX Design is how a user feels about the apps, UI Design is what, where and how elements work on the apps, Information Architecture is how an app is organized, and Interaction Design is how the user and app act and react to each other.

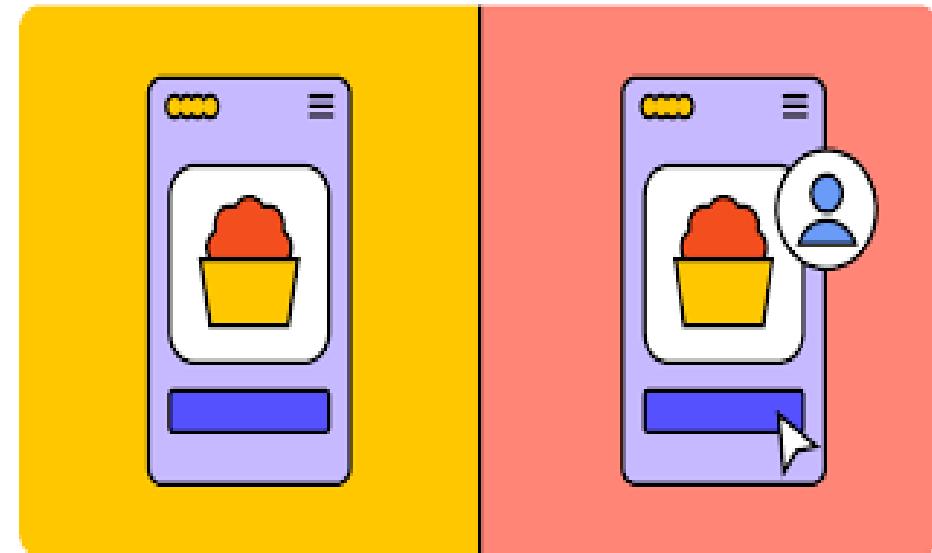


- **Interaction design** is concerned with how a system and a user interact, while visual design focuses on how a system looks.

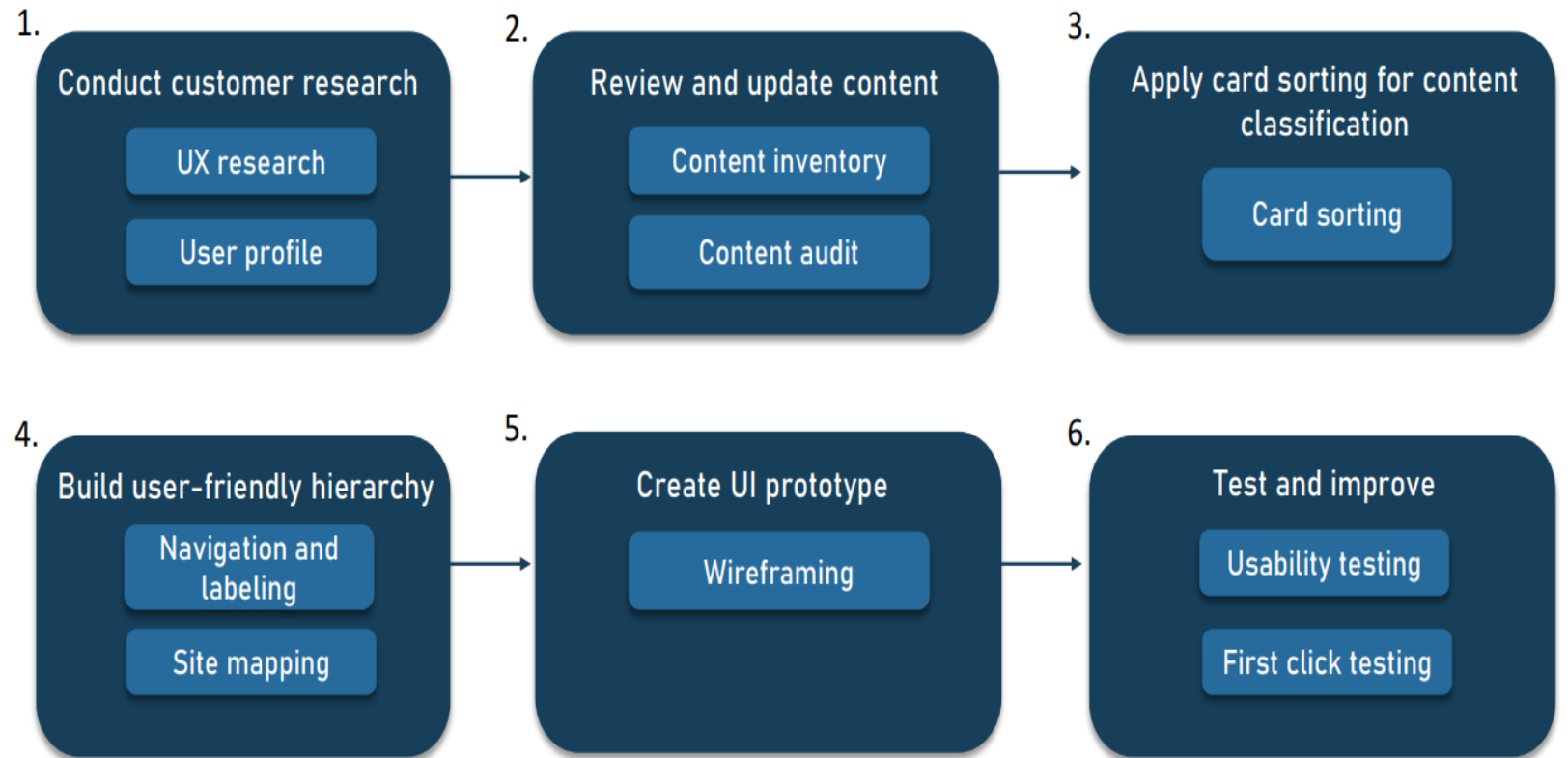
Information architect role

An **information architect** is a professional responsible for organizing, structuring, and labeling content in a way that will make it easy for users to find the necessary information and navigate through a website or applications.

the role of an information architect as a person who bridges users and content by designing search and navigation, embodying the abstract ideas into prototypes, units, and disciplines to turn the concepts into something understandable. An information architect who works along with a UX designer can concentrate solely on information architecture design, while a UX designer devotes more time to research. In this case, an architect creates a number of deliverables,



MAIN STEPS OF INFORMATION ARCHITECTURE DESIGN



a person who works on information architecture must start with the rules that help to achieve the goal of IA. To create a strong information architecture, you must start with thorough research, so it all begins with learning your users' needs and behaviors.

Conduct customer research

The aim of this stage is to learn about a user's needs. You must work with a customer profile and the results of customer and stakeholder interviews. The data revealed at this stage will allow you to create a user persona profile, list business requirements, and get an idea of what a user wants. Since these tasks belong to a UX designer or business analyst, you need the results of their activities.

At the end of this stage, you'll end up with a user profile and user flow that illustrate the way a user thinks and interacts with a product. When you have all the necessary information about the product and the people who use/will use it, next step.



Review and update the content

Once you know what a user wants, you can update the content of an existing website and list it. The main activities to perform at this stage are content inventory and content audit.

The goal of this activity is to create a list of information elements on all the pages of a website and classify them by topic and sub-topic. This includes the following items:

- Headings and subheadings
- Texts
- Media files (images, video, audio)
- Documents (doc, pdf, ppt)
- URL-links of the pages

These elements are listed in a content template with their characteristics included.



Content audit

Well, you have the content list. Now, assess its accuracy, style of presentation, and usefulness. Then, scrap the least important items, refresh outdated pieces of content, and rearrange them for the next steps. This activity is applicable both to new products and to app or website redesigns.

The next step involves grouping content into different categories. Here, you'll need the help of potential users.

Apply card sorting for content classification

All types of content must be classified and have proper names that won't confuse a user. You need a taxonomy to do it. Taxonomy is another word for classification. In the case of IA, it's an attempt to group different unstructured pieces of information and give them descriptions.

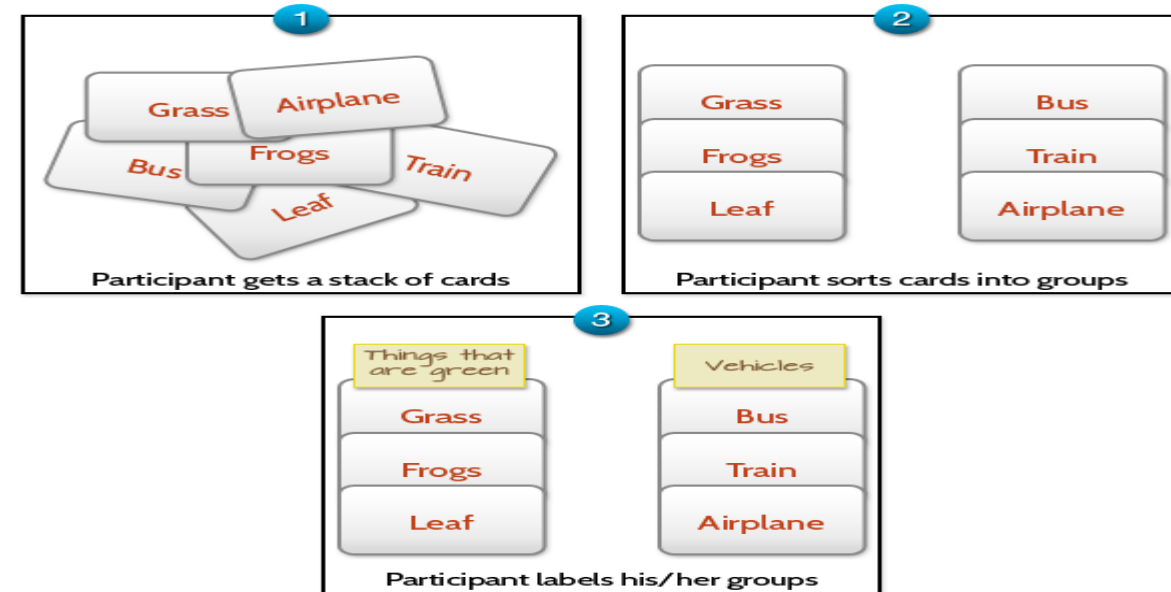


- **A content audit** describes the process of collecting and analyzing assets on a website, such as landing pages or blog posts. Content audits keep an inventory of a website and provide insight into which content to create, update, re-write, or delete.
- Running a content audit for your website can boost your traffic and improve the experience of your readers.
- Taxonomy is the practice and science of categorization or classification.

The most popular and the most important technique that allows taxonomies the content is card sorting.

As soon as you have the content, arrange it. The point of the activity is to see directly how users perceive the product's content pieces. Card sorting is usually conducted in small groups of 15-20 participants, where they have to describe and sort 30-60 cards with pieces of information into different classes. The cards contain topics that must be categorized, or pieces of content that must be described.

Open Card Sort



- **Card sorting** is a research method used by UX and user researchers to uncover users' mental models and better understand how people naturally categorize information.

There are three types of card sorting:

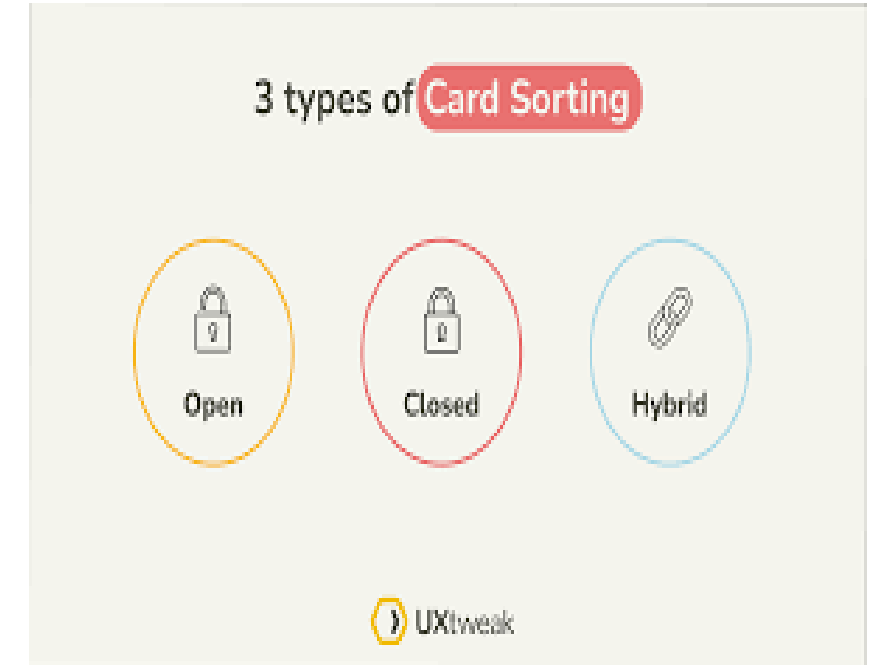
Open – for free labeling. The participants categorize topics however they like and in the order that makes sense to them. This approach allows you to understand how the users think in terms of classification. Open type is used to design new products.

Closed – with pre-designed categories. This method of card sorting is usually applied in redesign. The participants are given predefined categories from a content inventory list, and they sort the content according to them.

Hybrid – unites elements of both types, or starts with an open type, moving to the closed type to follow user logic.

You can conduct card sorting in groups, as a personal interview, or remotely via IA tools like [User Zoom](#) or [Optimal Sort](#).

- The cards can be digital or physical, i.e. written on pieces of paper. When creating cards, use the results of content inventory. Separate topics have to be on separate index cards. They should have numbers and some should have blank spaces, so the participants can create their own names for categories. As a result, you'll see the approximate structure of a product and proceed with the first prototypes. But first, the categories must be labeled and defined in a navigation system.

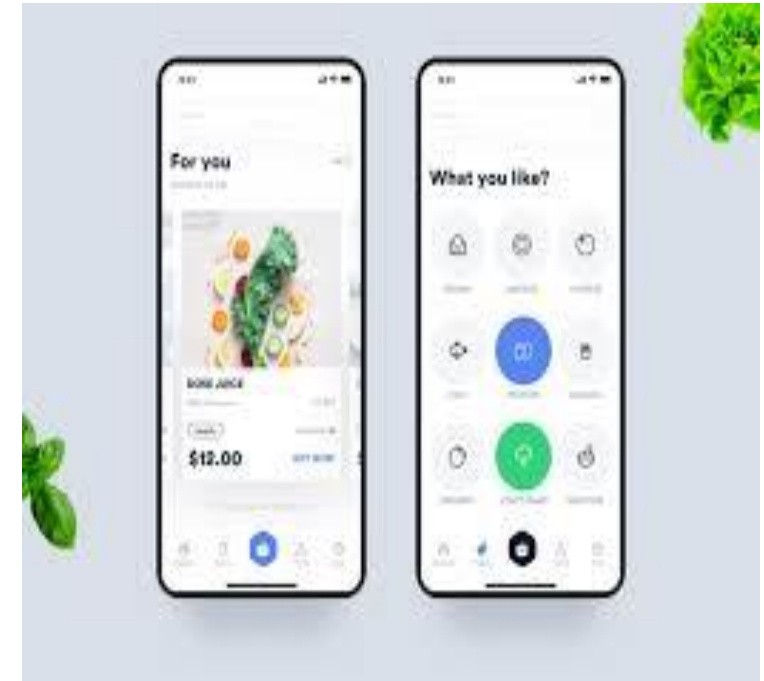


Mobile navigation: patterns

Navigation is known to be the backbone of any app - but how can we make it intuitive and seamless? What patterns are most popular?

Mobile navigation design is all about getting users where they want to go, with the least amount of friction possible. There's a wide selection of tools that designers can implement in order to create an entire navigation system in their mobile app – but the best one to use, of course, is an app prototyping tool.

We put together a list of the most common UI components and patterns that designers all over the world use when prototyping their navigation.



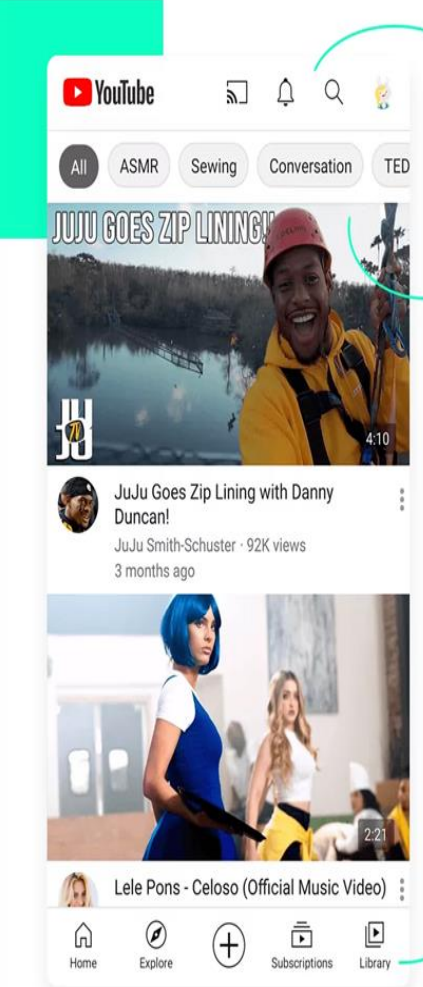
What is mobile navigation?

There are so many ways to describe navigation in mobile apps and how important it is. The navigation is the way your users will get from point A to point B. It's how they'll discover the design and interact with the product. Designers and writers have described navigation as the road system of an app, because they are the highways that users need to enjoy the product.

The navigation design of any product is crucial. While it's tempting to think of the goal of the navigation as “getting from A to B in the least amount of time possible”, that would be a mistake. Your navigation isn't about getting users there quickly – it's about making the way there logical and easy.

Good mobile navigation will boost the usability of the entire product, helping users to enjoy all the features offered. Bad navigation will make it difficult to find things, making it less likely that users will ever experience the product the way the design team had envisioned. This is the kind of thing that can make or break any mobile app – a life and death kind of situation.

What is mobile navigation?



Top navigation bar

IS THE MOST INTUITIVE AND LOGICAL WAY TO GO FROM POINT A TO POINT B

Filter navigation

INCREASES THE USABILITY OF THE ENTIRE PRODUCT

Bottom navigation

PROVIDES AN OPTIMAL OVERALL USER EXPERIENCE

Best practices for mobile navigation

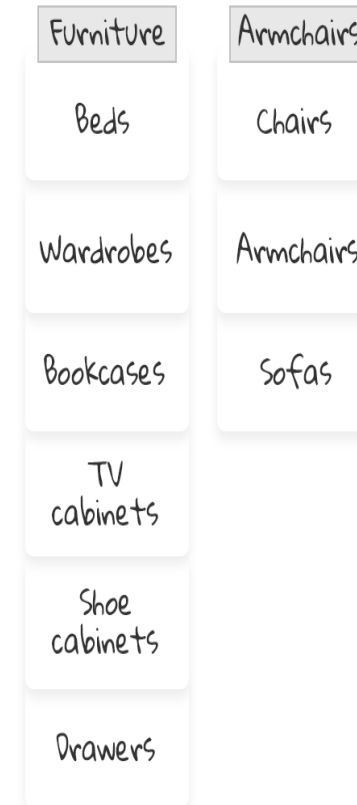
1. Navigation needs to be evident and intuitive

This is true for all sorts of navigation, it's true. However, everything is made more noticeable in mobile devices because of the reduced space and increased interaction cost. That means that any mistake made in the navigation of an app can have a bigger impact on the experience than a web-based app.

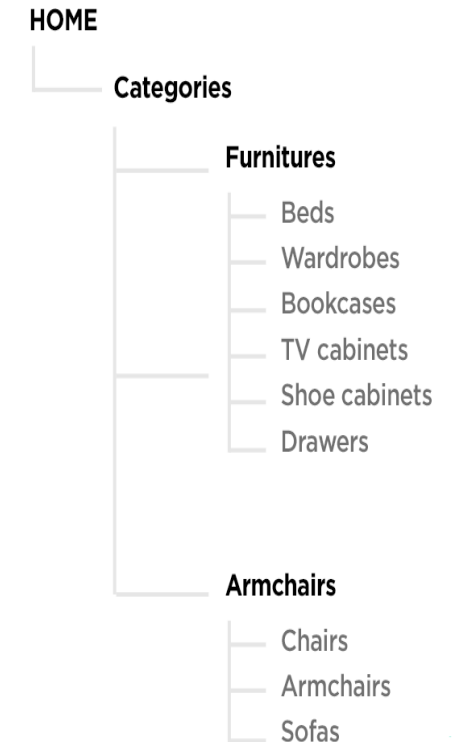
Users don't want to wonder what buttons do or where links will go. From a usability point-of-view, it's crucial that the navigation is intuitive to your target users. This means rigorous testing and lots of research. You want to understand users' mental models, and carry out tree tests and card sorting tests. This is the time to pull out all stops and create a mobile navigation system that works with users instead of against them.

Even after the bare bones of the navigation design are put together, you'll still want to double-check that it truly is intuitive. From low to high-fidelity prototypes, this type of validation is standard procedure.

Card sorting



Tree testing

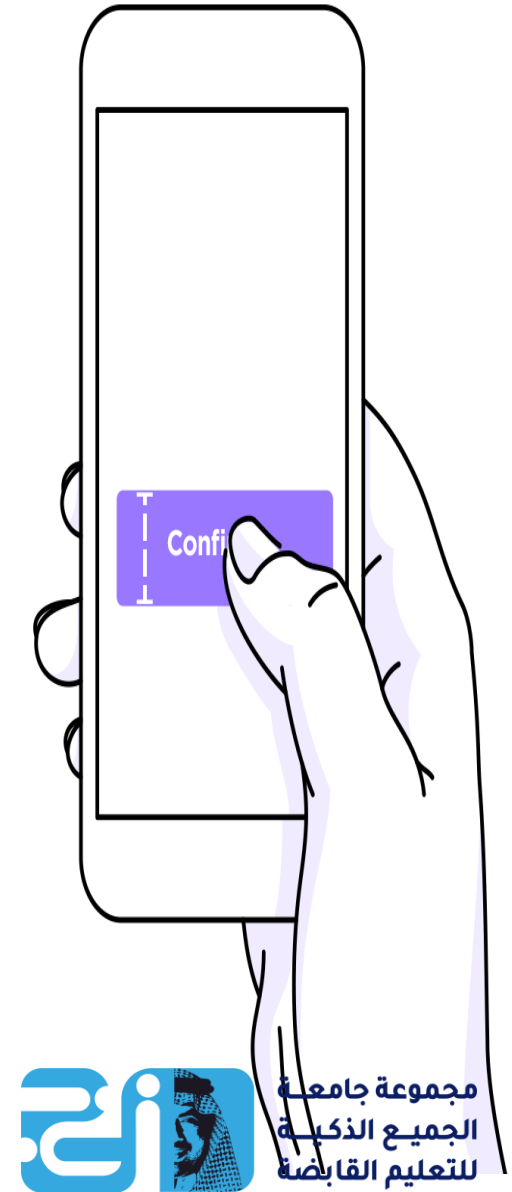
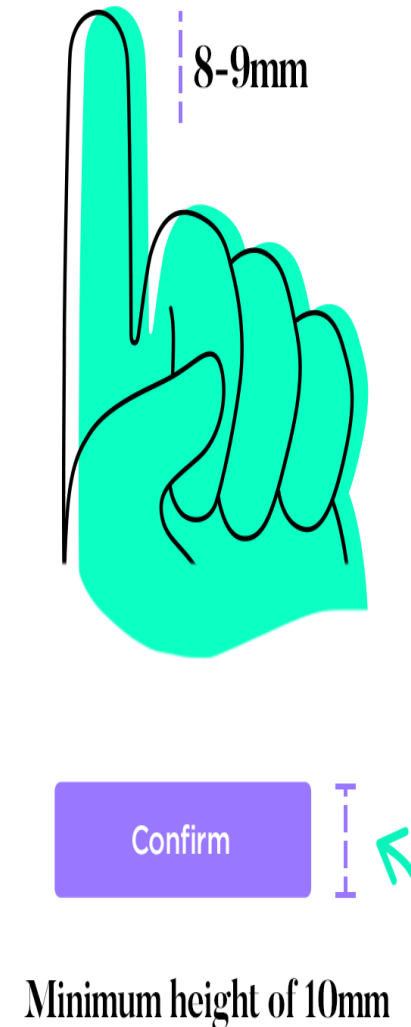


2. Account for finger and hand positioning

This is of vital importance for mobile apps. Users' fingers aren't always slim but everyone has to be able to use the app comfortably. Nobody wants to waste time by trying to tap on an icon repeatedly and not being able to get anywhere. It's frustrating, distractive and can ruin the carefully planned experience the design team had worked so hard to create.

This means that your links and buttons need to be big enough for most people to be able to tap them successfully on the first try. The general advice is to install a minimum 10mm size to all buttons.

Another thing to consider is the spacing between elements that support the navigation. You want to make sure not just that everything is big enough so users won't stress themselves out when they try to tap them. You want available space so they don't tap on random elements that are nearby.



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3. Content needs to be legible

What is content legibility?

Definition: Legibility is the lowest-level consideration in content usability: it's whether people are able to see, distinguish, and recognize the characters and words in your text.

Mobile screens are much smaller than computers – which creates the issue of readability for the content at play. The navigation in most apps is text-based, even if they rely on icons like the hamburger menu icon for some of it.

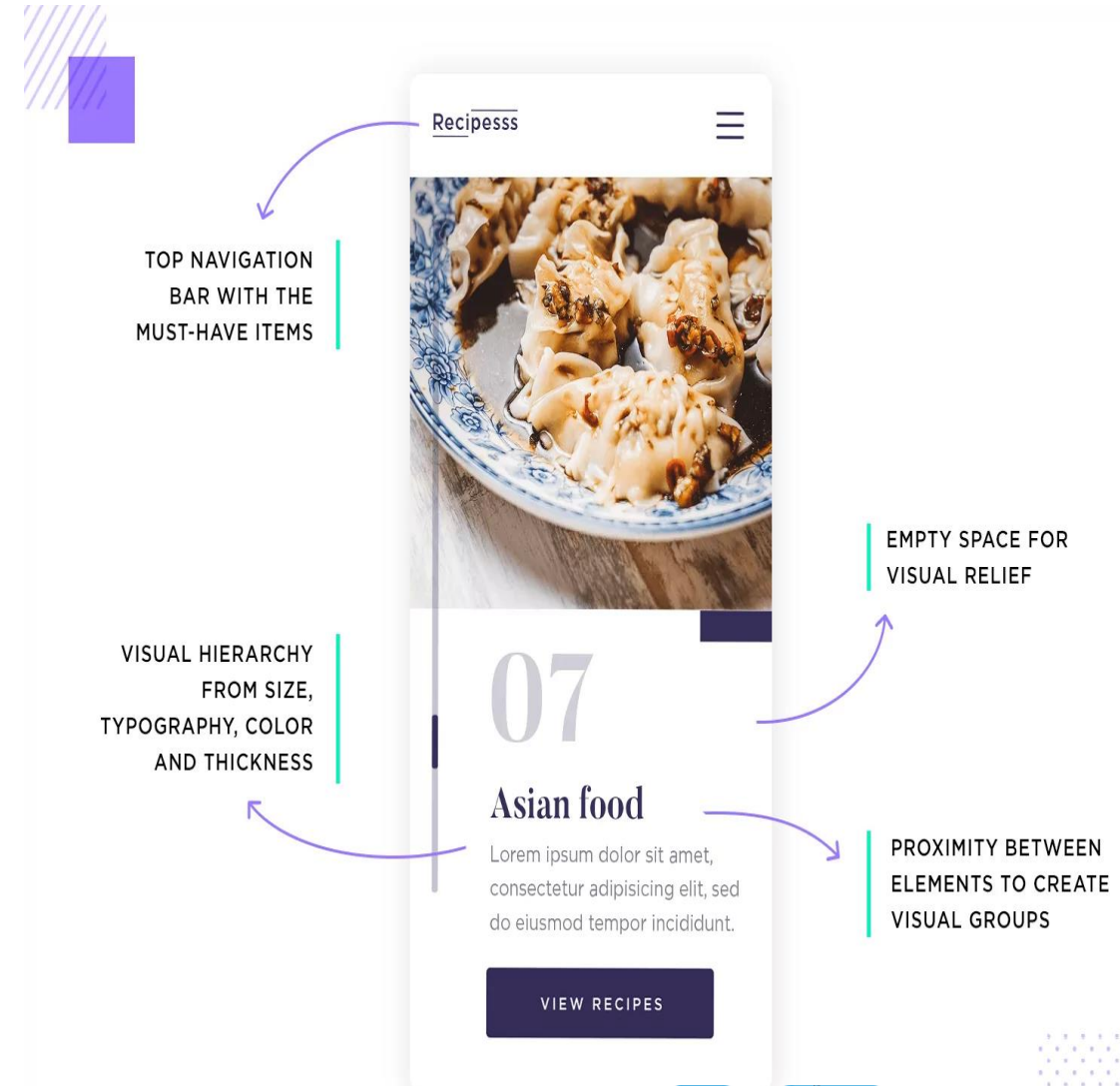
You want users to not have to struggle to read anything, from the actual content to the links and button texts. When it comes to mobile navigation, size matters! It's worth taking the time while you're still prototyping the navigation to test it out and see how users interact with it. This is a solid reason to invest in a prototyping tool that allows for realistic navigation simulation and can work with your favorite user testing platforms.



4. Avoid clutter, respect visual hierarchy

Small screens mean that it's much easier to fall into the clutter trap. Mobile app design requires designers to forsake anything that isn't absolutely crucial for the user experience, trimming any extra fat the design might have. Minimalism may be a specific style of UI design, but all designers dabble with it when it comes to creating mobile apps.

Even with a small number of elements, users can still get a feeling of chaos if the elements don't have a visual balance. It's very important that the UI layout, the content and even the navigation work together to guide the user's eyes around the screen. This includes having the content maintain a certain hierarchy, analyzing the proximity between elements and allowing plenty of empty space for visual relief.



8 UI components for mobile navigation apps

1. The hamburger menu

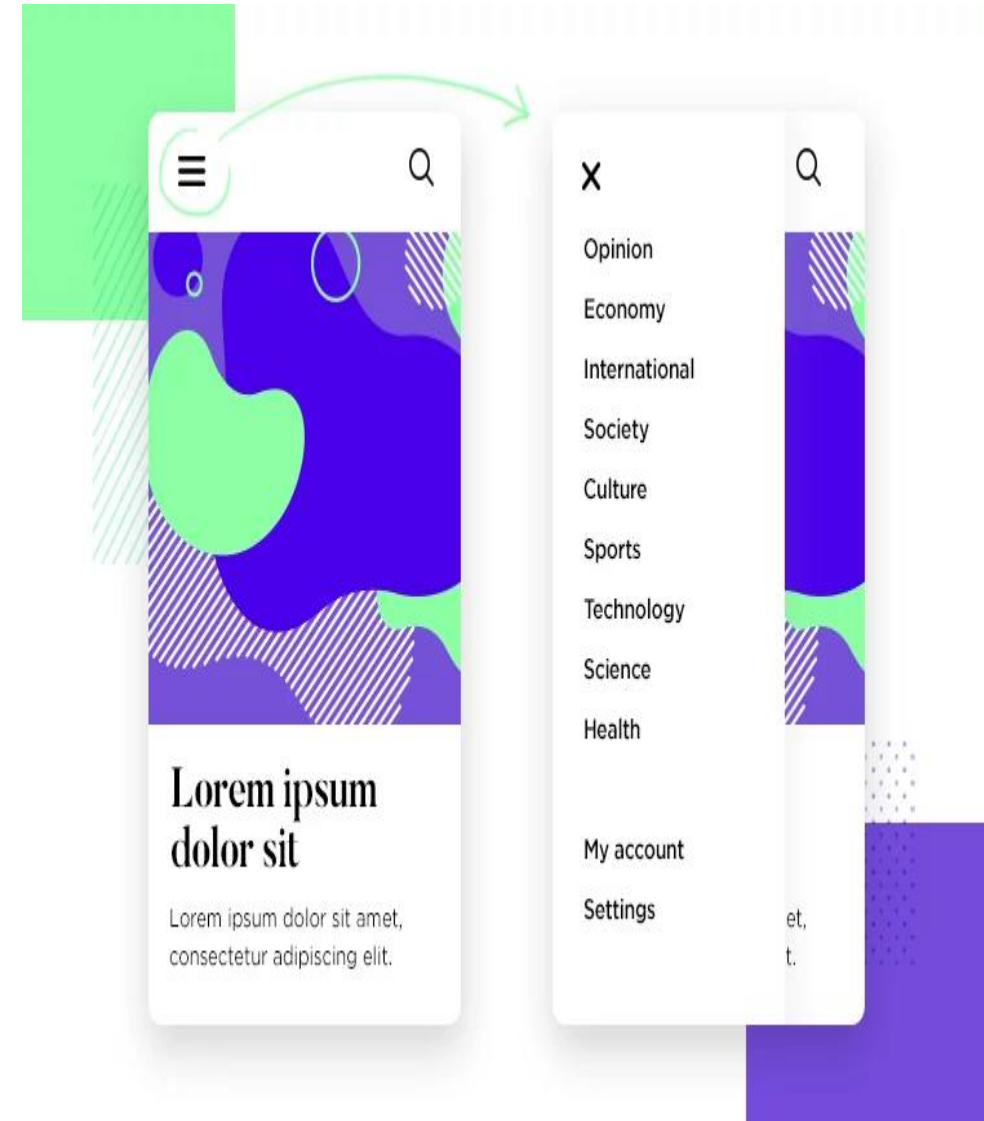
It's those three horizontal lines you see at the top corner of the screen on apps and responsive websites. can be extremely useful. With such a limited amount of real estate to play with, the hamburger menu is a method of hiding more elaborate navigation so users can enjoy more screen space. Hence, when designers refer to the “hamburger menu” we're actually talking about the icon which is used to collocate a load of menu options in one slide menu and stow them away.

When to use the hamburger menu

- Hiding secondary features
- No space on the screen to feature these secondary features, as having an overly-cluttered screen can increase cognitive load on your user.

When to not use the hamburger menu

- When it would hide core features
- When your website is already interaction heavy
- When it would hide native navigation

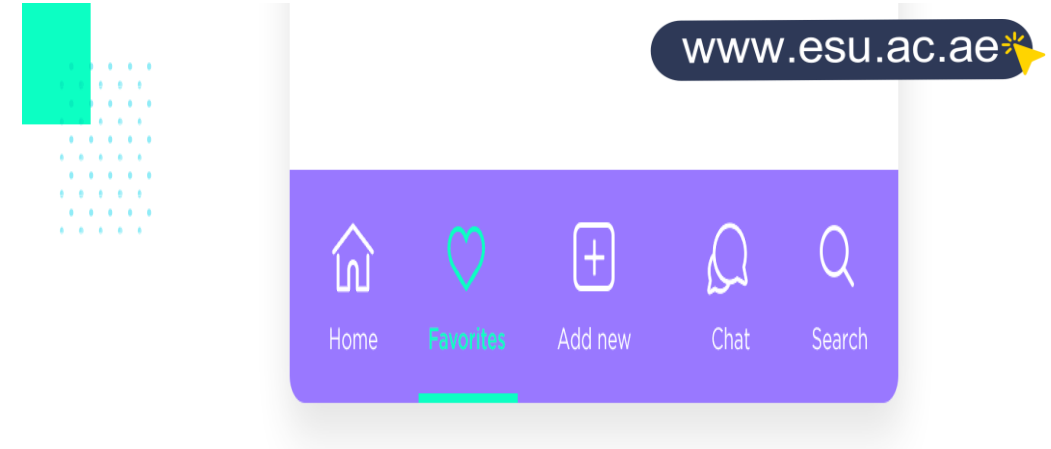


2. Bottom navigation

Bottom navigation is exactly that – a navigation bar that gathers the primary or secondary navigation links. With a simple tap, users can intuitively explore and negotiate between top-level views.

The reason why bottom navigation is so popular for mobile apps is that most users will be able to navigate with their thumbs comfortably while holding their device. It requires less strain and reduces the need to change the method of grasping the device, improving the usability of the entire product.

To reduce fatigue, most bottom navigation bars have between three and five destinations for quick access. Another argument in favor of bottom navigation is that it takes less effort to reach certain destinations within the design, with only a single tap being needed.



Bottom navigation

DIRECT ACCESS
TO SPECIFIC
SECTIONS

ALLOWS TO
NAVIGATE WITH
YOUR THUMBS

REQUIRES
LESS EFFORT

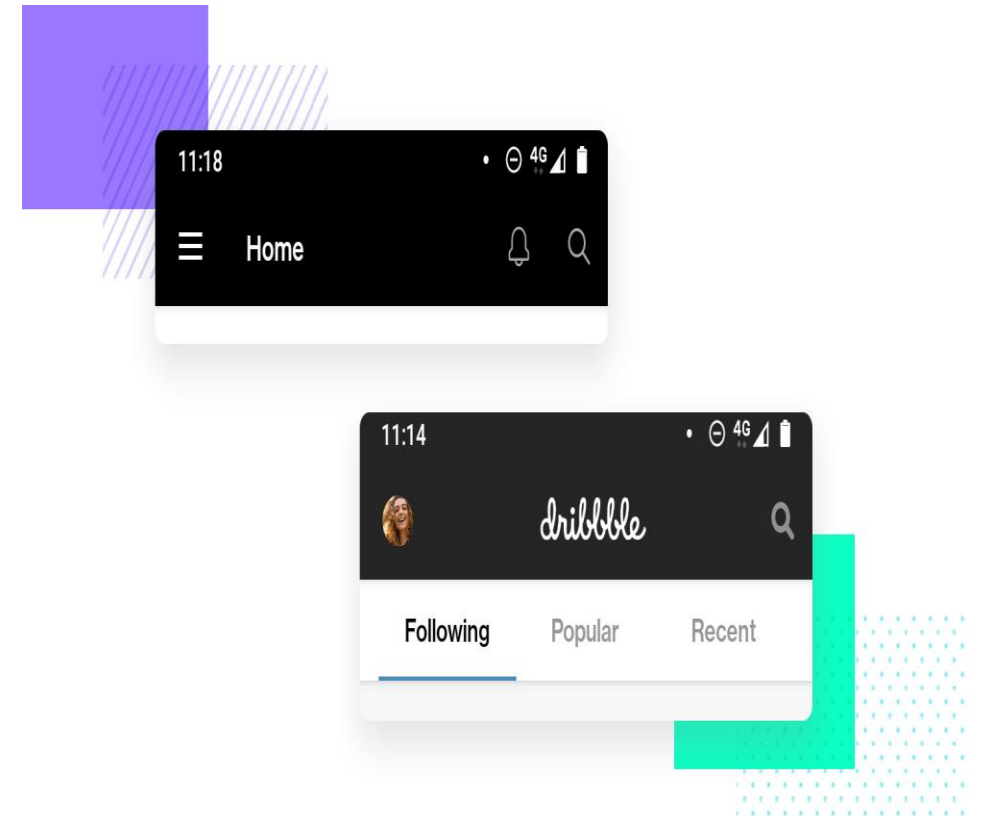
INCLUDES
BETWEEN 3
AND 5 ICONS TO
REDUCE FATIGUE

3. Top navigation

The other side of the same coin as bottom navigation. This also consists of a navigation bar, only located at the top of the screen. It still offers most of the benefits from bottom navigation, minus the ease of use while holding mobile devices. With larger phones, many users will have to use both hands or change their grasp in order to reach all the links.

Like many components on this list, top navigation is often used in combination with other ways of navigation.

A practical example might be when mobile apps use both top navigation (for primary links) and secondary navigation (for secondary links). The top bar can convey to users that the links it contains are very important, especially if they remain visible as the user scrolls down.



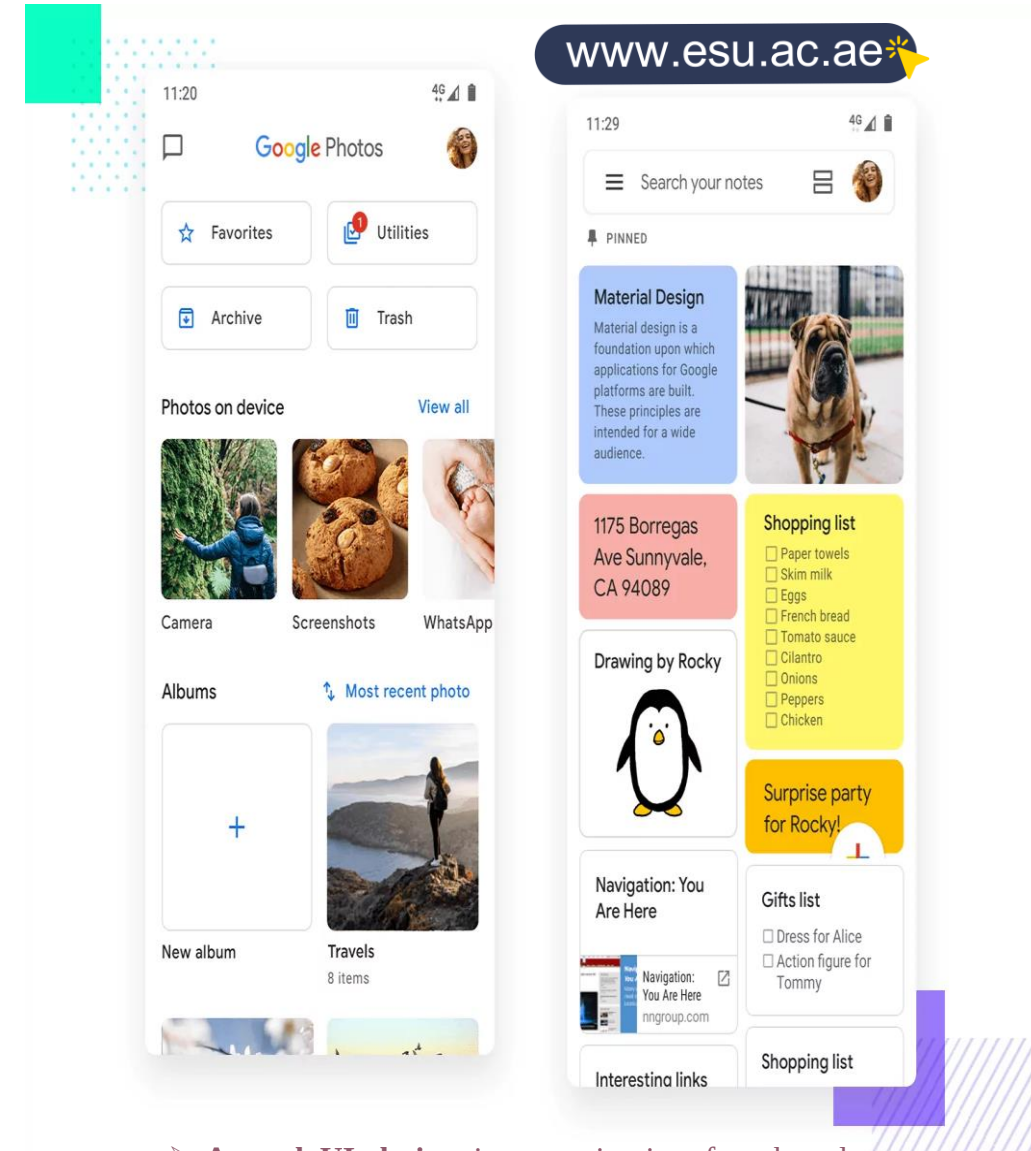
- Hamburger menu: Often used on mobile devices, it features an icon that expands into a menu when clicked, conserving screen space.
- A sticky menu is a fixed navigation menu on a webpage that remains visible and in the same position as the user scrolls down and moves about a site. Persistent navigation bars – or “sticky headers” – are now a web design standard.
- Fixed Top Navigation website features a sticky header that is fixed to the top of a user’s browser so they can still see it even as they scroll down the page.

4. Cards

Card UI design is a brilliant design pattern and can really make your mobile UI pop as a result of their highly visual and customizable nature. They come in all shapes and sizes and are a great way to showcase various elements such as text, a link, or a photo in one place and have become very popular in mobile app navigation.

As content has become more compartmentalized and personalized over the last few years, cards have been proven to be a great way to aggregate individual pieces of information in one place.

In an effort to improve your UX design, cards can be personalized to display different content. Another upside is that cards can help users notice immediately when the cards can be scrolled horizontally, improving general usability. Yet another argument in favor of cards is that they can be easily adapted to different screen sizes, making them a great option for responsive apps.



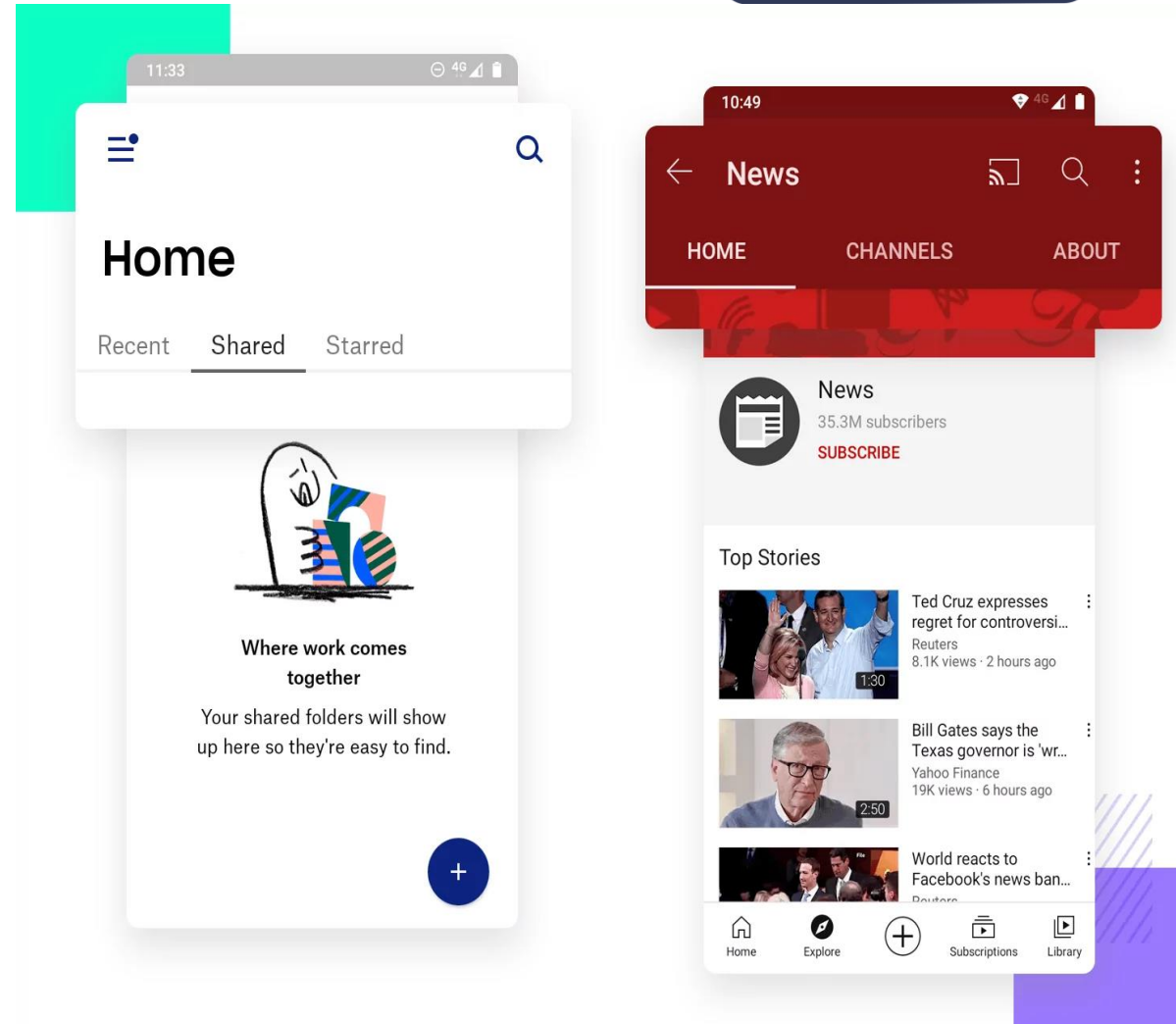
- **A card UI design** is an entire interface based largely or exclusively on presenting the user content on cards. The logic behind this is to avoid long texts and render content more scan able .

5. Tabs

Tabs are not too different from navigation bars when it comes to UI patterns. They share the same layout, that is to say, a tab will be a row of multiple options leading to different screens. Where they differ, however, is a navigation bar will contain options that are unrelated to each other. Tabs, on the other hand, tend to have an overlying theme to them.

For example, in a navigation bar, you might have a home button. Next to the home button may be a search function or even a favorites button which will take you to those respective views. While unrelated, these buttons represent key features of the app.

Essentially, tabs are used to switch between alternative views within the same context. To illustrate, consider a tab system for an email platform. The first tab shows “primary” senders who are in your contact list, while the second shows other senders who you may not know. Two different sides of the same coin that deal with incoming emails.



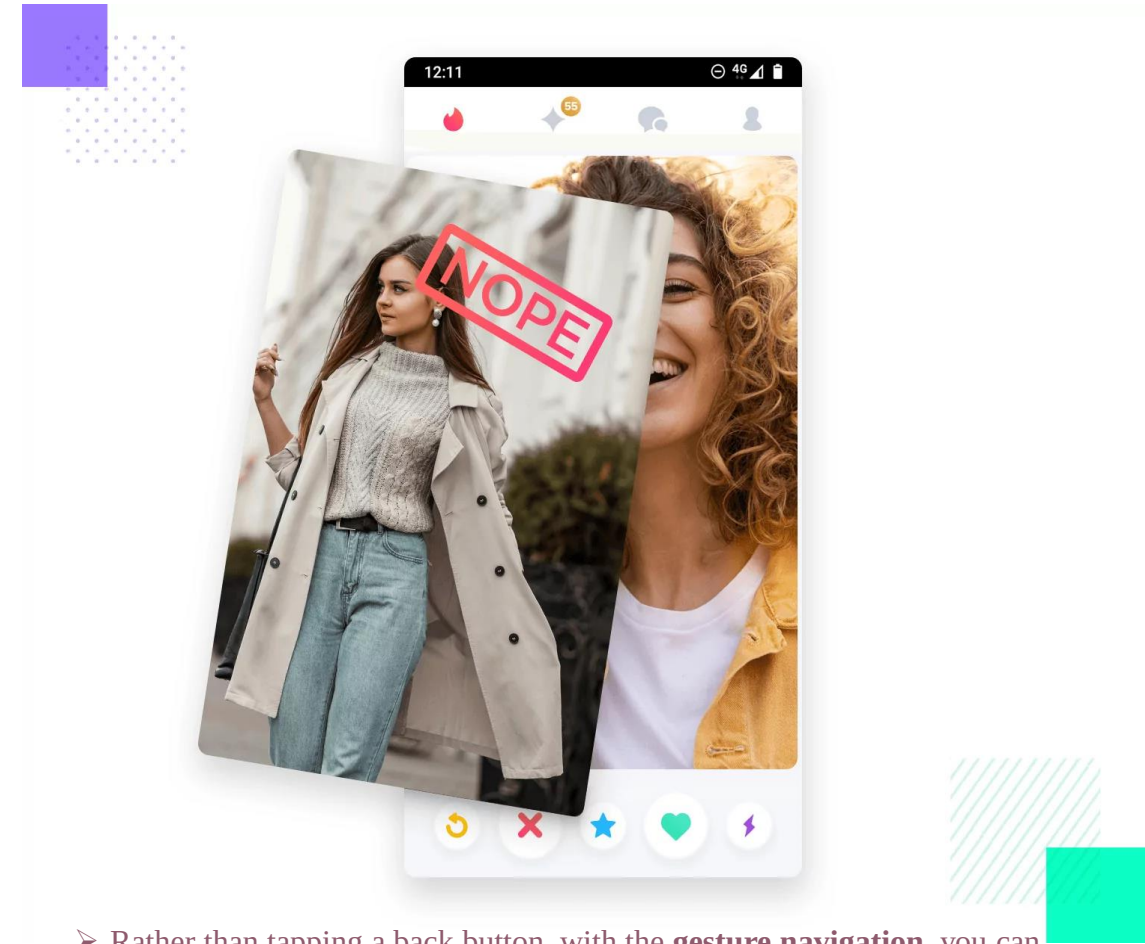
- UX patterns are more functional, referring to materials like user flows. UI patterns are more visually focused on the interface, like layout and visual hierarchy.

6. Gesture-Based Navigation

Gesture-based navigation enables users to quickly swipe in their desired direction to navigate through an app or perform a particular action. As a UI navigation pattern,

Using gestural navigation helps to create a journey between different scenes within an app and gestures include touching and dragging, both horizontally and vertically, as well as zooming in and out. It's highly immersive and interactive, creating a dynamic experience.

The great thing about this UI design pattern is that it's relatively simple to grasp for even the most inexperienced user as the gestures are often intuitive and only require a little experimentation to get right.

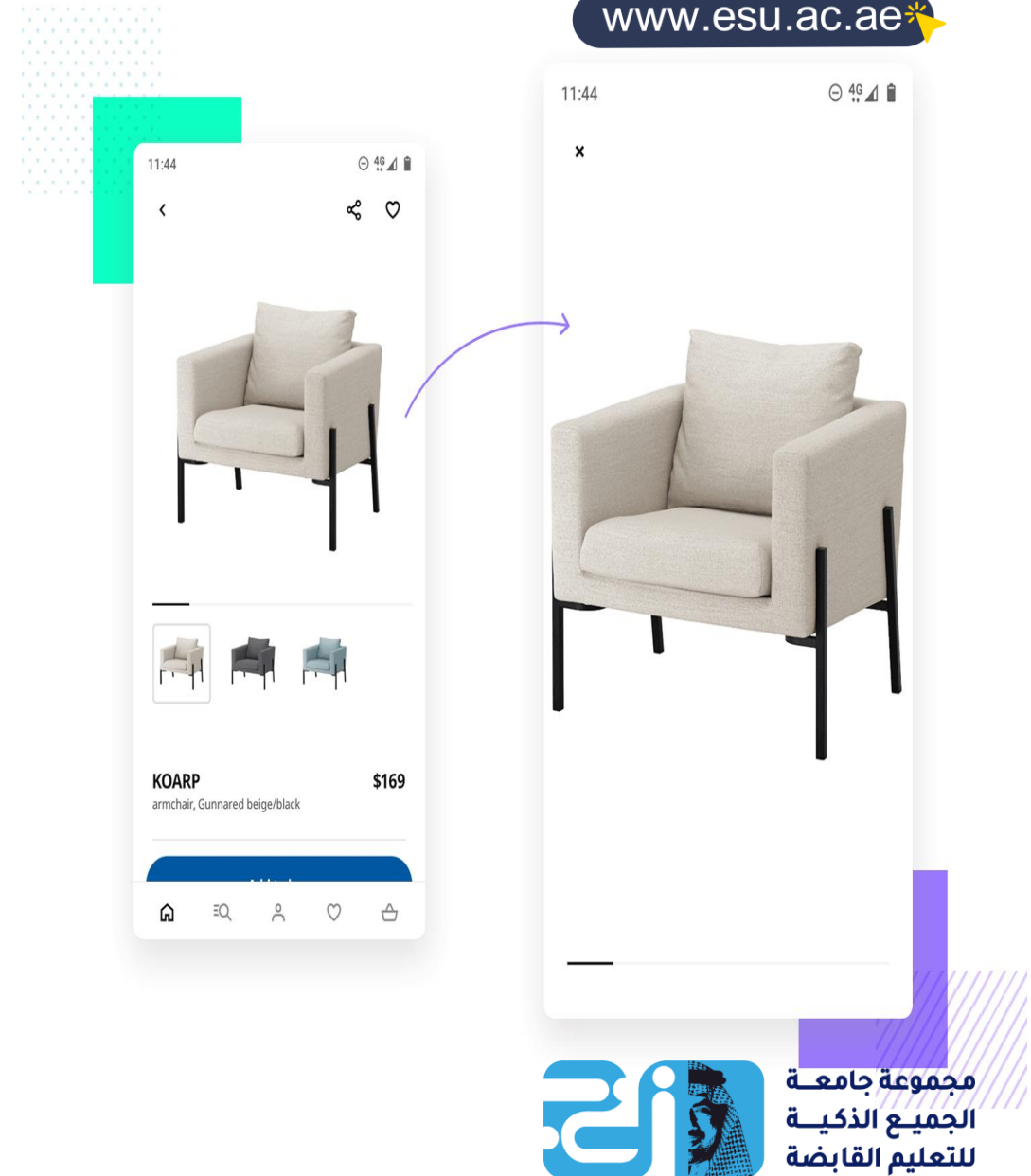


- Rather than tapping a back button, with the **gesture navigation**, you can simply swipe from your screen's right or left edge to go back. Gesture navigation is a smoother, more intuitive, and more streamlined way of navigating through your phone.

7. Full-screen navigation

Many of the navigation patterns on this list are all about minimizing the use of space. This is a completely opposite approach, dedicating the majority of the screen exclusively to mobile navigation. Sometimes referred to as a “navigation hub”, this approach works well to funnel users from broad sections of the product to very specific ones.

It's true that sometimes, so much navigation can be a little overwhelming. Some designers are adventurous enough to dedicate an entire screen to the app's navigation, using careful visual hierarchy to avoid overwhelming users. It's a way to offer a lot of the navigation options in a coherent way, immediately helping users understand the product's features all at once.

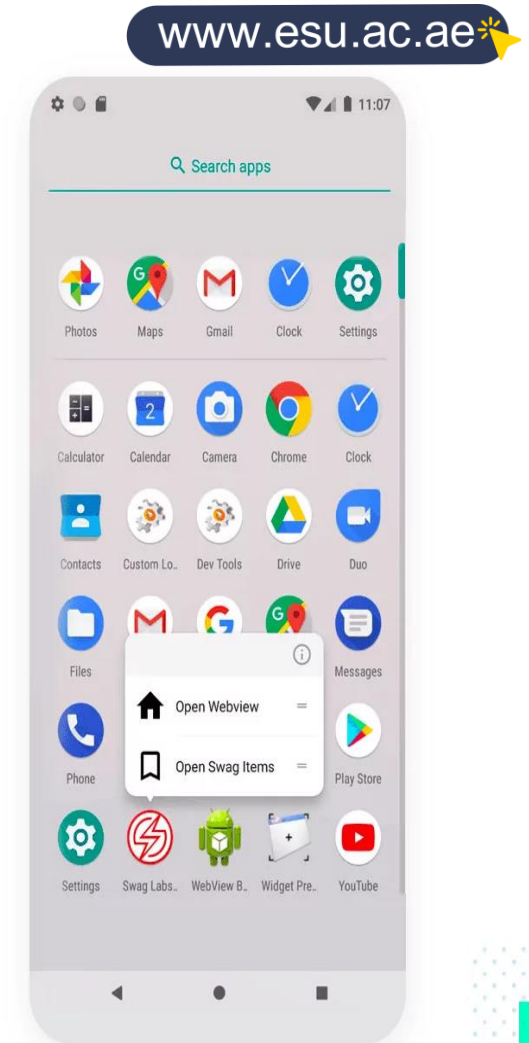
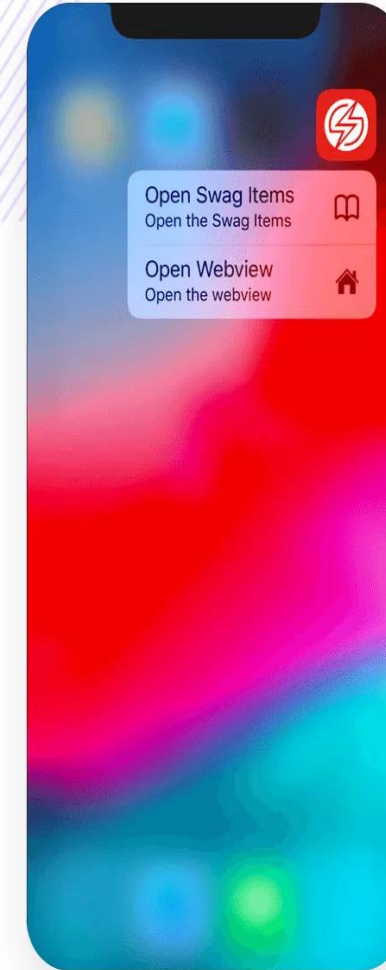


8. 3D touch

3D touch. It was first brought to users by Apple, who found a way to offer direct options from the home screen of the iPhone. It's a way to create a navigation shortcut, showing the key actions for the selected app.

Another common use for this mobile navigation is the preview of content. When dealing with a list of options for content, like an email inbox or a list of articles, this can be a good way to give the user a preview.

It's worth remembering that central features shouldn't be accessible only via 3D touch. Mobile navigation should still provide a clear path so users can find the primary features without having to discover the 3D touch option.



- 3D touch is a newly added feature to the iPhone and is based on force touch technology. It gives the users a new set of gestures to deal with the apps' icons and details on the screen.
- The idea behind 3D Touch is to sense the amount of pressure your finger applies to the screen and trigger various actions. 3D Touch enables soft press and hard press rather than the short press or long-press.

Build a website hierarchy for user-friendly navigation

Every website or app needs a solid navigation system that helps users find what they need. As soon as you have the results of card sorting activities, you will understand how to embody and classify the content in reality. This step embraces navigation design, labeling, and site mapping. Let's define them one by one.

Navigation

When working on navigation, remember that no matter which pages the visitors come from, they must be able to easily locate what they are looking for. The terms IA and navigation are sometimes used interchangeably. However, they are not the same since navigation is just a part of IA. As you design your website or application, it's important not to focus on navigation only as you risk finding out eventually that it doesn't accommodate the full scope of your site content and functionality.

- A navigation system consists of many elements – buttons, menus, and tables of content.



What are the types of website navigation?

Why exactly is website navigation so crucial? Well, for starters, it impacts whether visitors arrive on your homepage and browse or click the "Back" button, leading to a higher bounce rate. As a result, you should deeply consider the best way to structure your website navigation. And that's where the different types of it come into the picture.

How you structure your website navigation depends on your target audience and what format you think would be most intuitive and accessible. Here are some common types of website navigation you may consider as you build your site.



Horizontal Navigation Bar

the horizontal navigation bar is the most common type. It lists the major pages side-by-side and places them in the website header. Many websites feature the same sections, like "About," "Products," "Pricing," and "Contact," because visitors expect to see them.

While these sections are popular for a reason, you shouldn't be afraid to customize your site by tailoring your menu. When you build your navigation bar, consider your website purpose and audience. What are you trying to achieve on your site, and what are visitors looking for? Start by answering those two questions and go from there.

Website Header Elements

Branding: Incorporate your logo and/ or branding images in the header so visitors can quickly identify your business and form associations.

Call-to-Action (CTA): Some headers include a brief CTA such as a newsletter signup or free trial. The key? Make sure these CTAs are small, simple, and to the point.

Minimal Text: Since you're dealing with minimal space, keep your text to a minimum too — minimal is the operative word. Your header text might include your slogan or a blurb about your product.

Navigation Tools: Incorporate navigation links to other site pages if it makes sense to — these might be links to your product page, sale items, or sign up page.

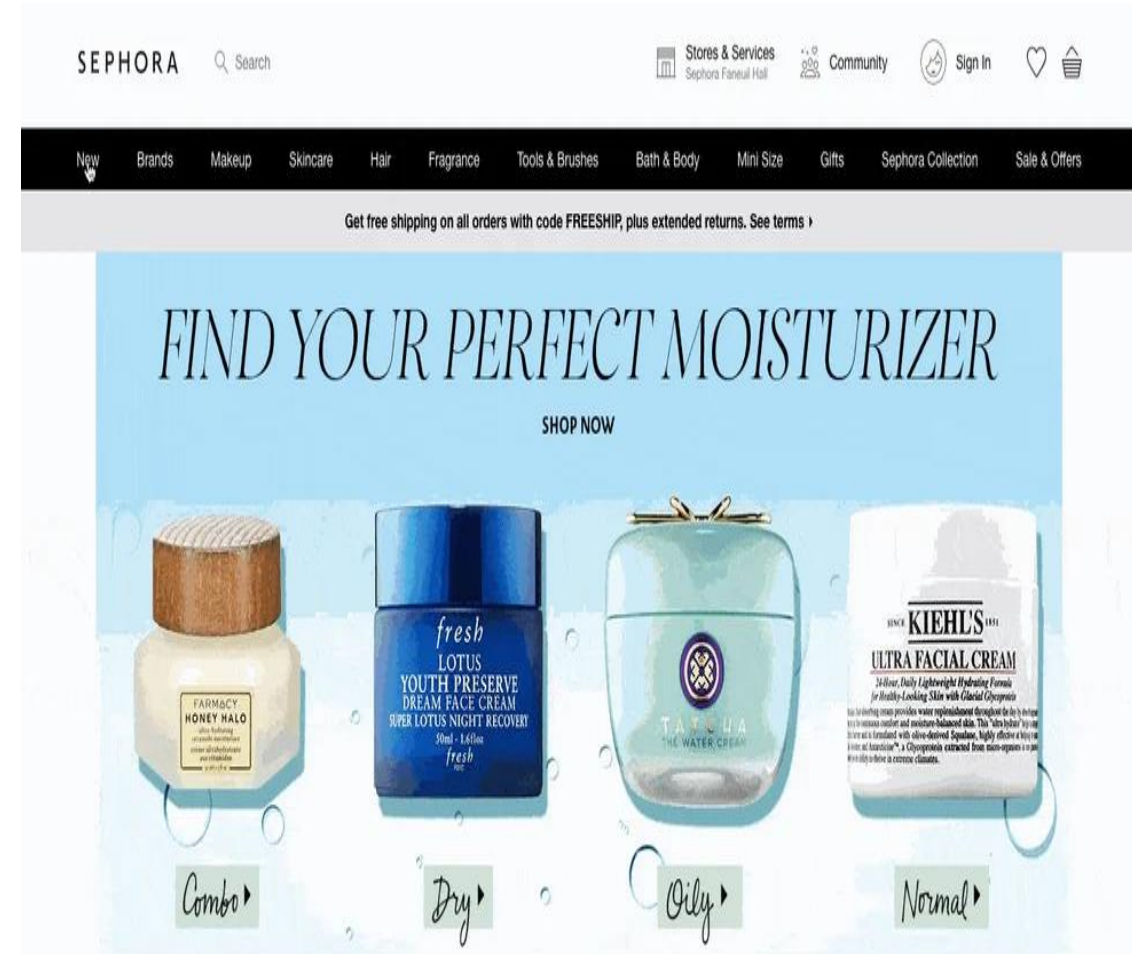
Search Bars: Add a search bar if it works with your header's message so visitors can quickly find what they're looking for.

- A website header is the section at the very top of your page — it's often a banner but can also be a full or half-page that moves out of view as users scroll down your landing page

Dropdown Navigation Menu

Up next, we have the dropdown navigation menu. This option is ideal for content-rich sites with a complex IA. If you want your menu to include plenty of links to pages, you may consider using this option, as you can't list all the options side-by-side. Instead, you can list the most crucial or general items in the top-level navigation bar. Then, you can add the rest in a dropdown menu.

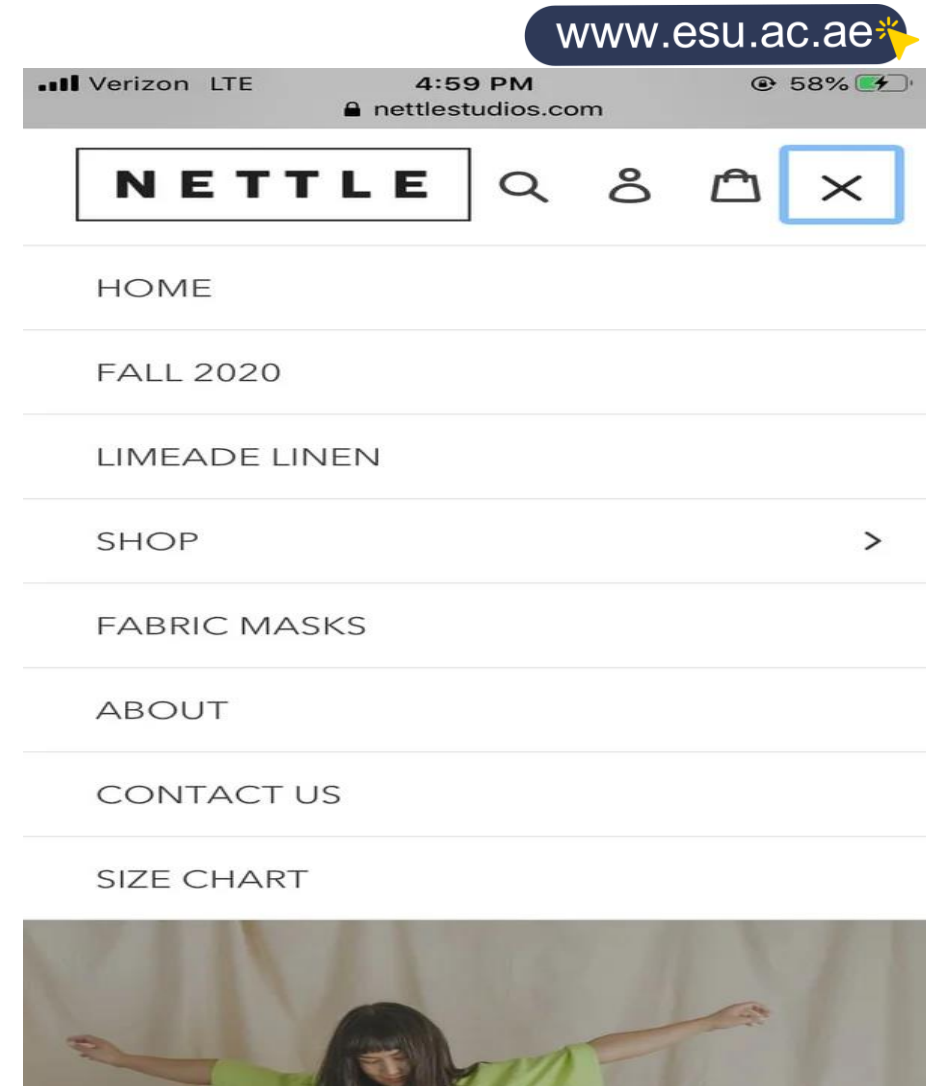
Take Sephora, for instance. This site offers an excellent example since it offers so many products and services. You can hover over any primary navigation link on its website, and a detailed dropdown menu will appear.



Hamburger Navigation Menu

Another option you should keep in mind for website navigation is the hamburger. You might already be familiar with this menu because it's popular with mobile web design. If you use this approach, your navigation items will be listed horizontally on larger screen sizes.

On a smaller screen, however, they will collapse behind a hamburger button on smaller screen sizes. And when visitors click on this three-line icon, a vertical drop-down or horizontal pop-out appears with the navigation links. If there's limited real estate on your site or you don't want navigation taking up a large chunk of space, the hamburger navigation menu might be the right pick.



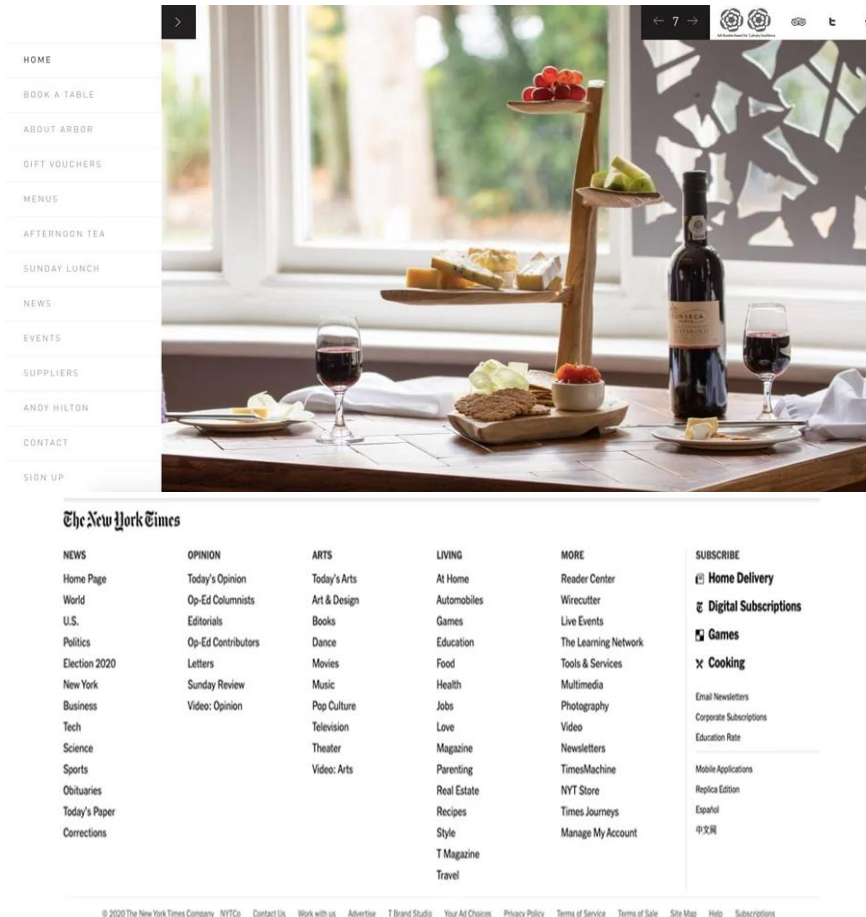
- A hamburger button, named for its visual resemblance to the food item, is a type of button common on websites and applications, especially mobile environments. It is an icon that consists of three parallel horizontal lines, often rounded at the ends.

Vertical Sidebar Navigation Menu

Now, we have vertical sidebar navigation menus. This is an excellent choice for website navigation because it offers a seamless user experience. The items are stacked on top of each other and positioned in the sidebar. Admittedly, this is less popular than horizontal navigation, but vertical navigation has benefits. Real estate isn't as limited so that you can write longer navigation links. There's also the opportunity for more top-level options.

Footer Navigation Menu

Another option is the footer menu. It is typically paired with — and expands upon — a horizontal navigation bar. If visitors don't see the link they need in the header, they can scroll down to the bottom of the page where they'll find more options.

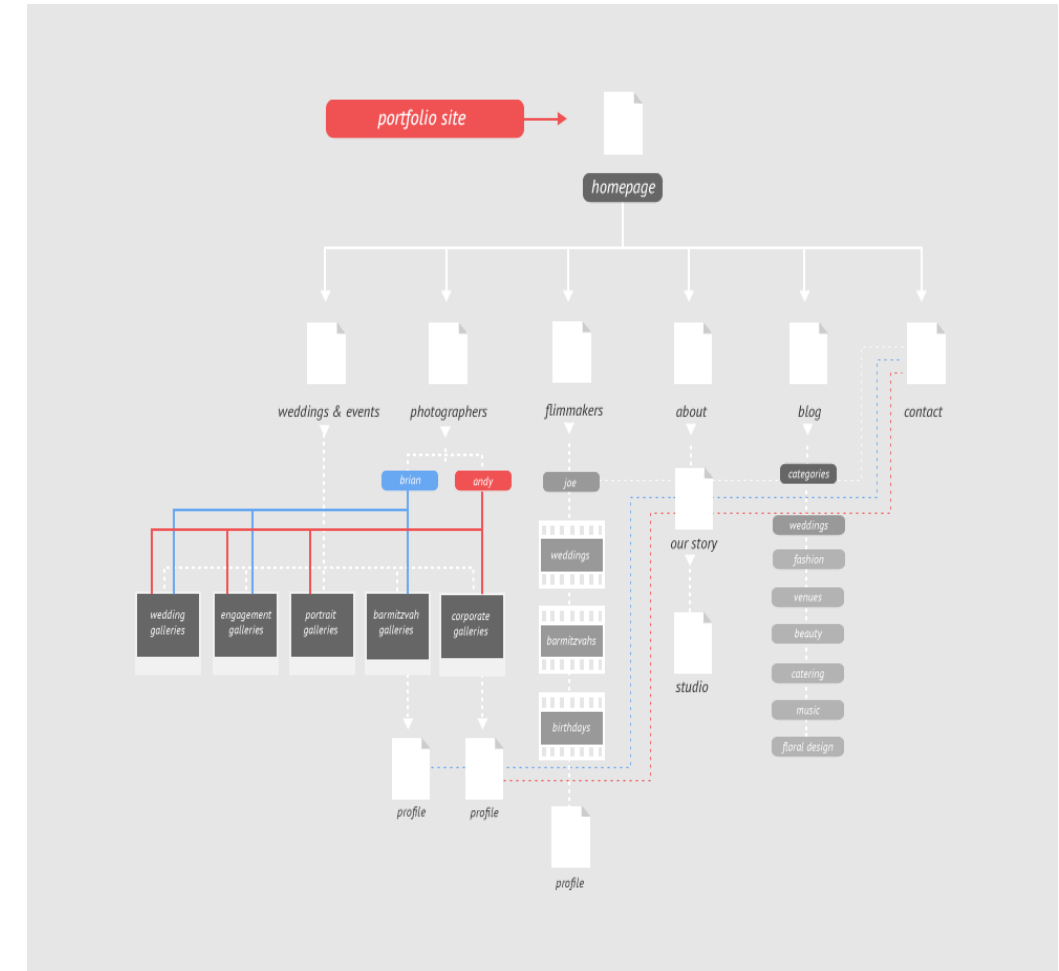


- Vertical navigation, also known as the vertical sidebar or vertical nave bar, is a navigation menu component stretching along the side of a page to present all links that will take users to different pages or parts of a website or mobile app

Information architecture diagram creation and site mapping
A sitemap is a way to illustrate the hierarchy of content and display navigation. The word sitemap is self-explanatory. It's a map of the content and categories of a website.

On a sitemap, you visualize the whole hierarchy of content. You can make it on paper or using different tools like Write Maps or Mind Node.

Sitemaps for IA design are typically created in the form of diagrams and are referred to as information architecture diagrams. They can also be presented in XML or HTML formats to help search engines understand your website structure and find relevant information. XML is barely readable by users, but HTML sitemaps look like usual webpages and can be read by humans and search engine robots alike.



Still, there is one more stage before production – prototyping.

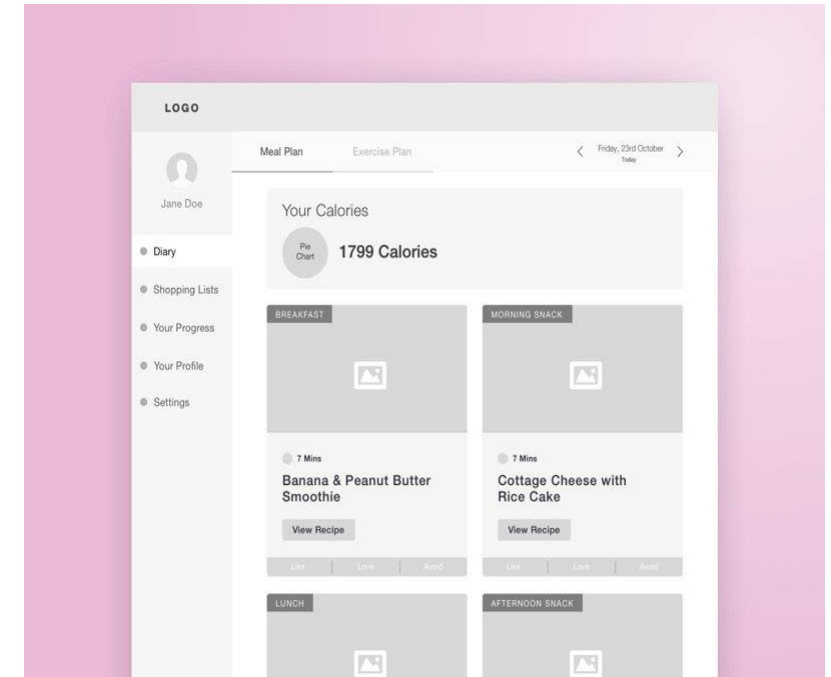
Create a UI prototype for future development

Although a sitemap is the first prototype in information architecture development, you still have to create advanced prototypes by wire framing and data modeling.

Wire framing

While a sitemap is a scheme of content hierarchy, a wireframe embodies the final look. A wireframe is a schematic representation of a website or an app that displays the navigation and interface of a website. An IA wireframe shows all the pages and screens of a product, with headlines, tags, labels, and gray boxes where the content will be placed. It's also the first draft of a digital product's UI.

This deliverable is a bridge between the information architect and a UX/UI designer. Using a wireframe, you can conduct user testing to understand if an IA serves its purpose. These test results will allow you to apply the changes before developers and UI designers start working on a product.



- **A UI prototype** demonstrates a product's design and functionality to stakeholders, clients, and potential users. A prototype gives stakeholders a better understanding of how users interact with the product, website, or application while it's in the design and development process.
- **Wire framing** is a process where designers draw overviews of interactive products to establish the structure and flow of possible design solutions

Wireframes are drawn on paper or using special software like Just in mind or Visio for creating digital wireframes, sitemaps, or high-fidelity prototypes. Wireframes are tested by users to define whether the structure is clear and concise.

Data modeling

The final step before development is data modeling: You can embody the content structure in data modeling systems. At this stage, you communicate the prototypes to stakeholders and developers to work on a product.

Usually, it's done via wireframes or right through CMS (content management systems), which are the supporting systems for content publishing, like WordPress, and Wix . Lay the content out via CMS and later use it as the platform for website development.



- A wireframe is a schematic, a blueprint, useful to help you and your programmers and designers think and communicate about the structure of the software or website you're building.
- A website wireframe is used to map out the main features and navigation of a new website design. It gives an idea of the site's functionality before considering visual design elements, like content and color schemes.

Test and improve

Testing activities can be conducted at different stages of the design process to guide designers and polish IA. They are often a part of the research phase, especially if you're looking for ways to redesign an existing app or website.

However, it's imperative to test your information architecture as soon as the prototype is ready and before it gets to the development team. This practice can help you avoid costly mistakes like having to rebuild your product. Here, such methods as usability testing and first click testing are applied. You can test both initial prototypes (often a paper draft) and clickable prototypes to detect possible navigation or layout problems.



- **Data modeling** is the process of creating a simplified diagram of a software system and the data elements it contains, using text and symbols to represent the data and how it flows.
- **Data models** provide a blueprint for designing a new database or reengineering a legacy application. Overall, data modeling helps an organization use its data effectively to meet business needs for information

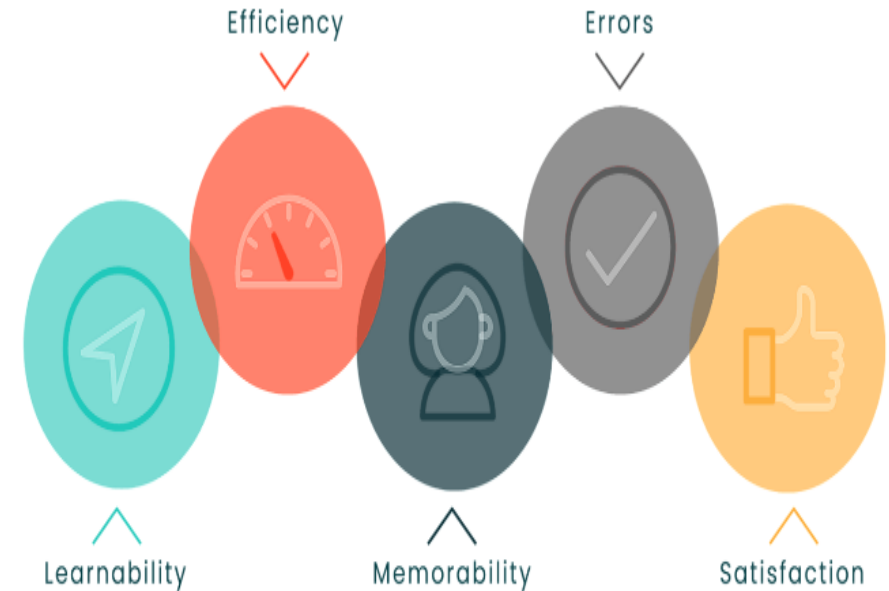
Usability testing

Usability testing allows you to make sure the designed structure works for your users. During usability testing, participants are required to interact with your product in a typical way, like they would've done in real life. For example, you can ask them to look for specific information (e.g., contact or payment details, certain item for sale, etc.) or perform a specific task (e.g., register a new account, complete a purchase, etc.). Obviously, they can't find the answers as the content is not ready yet, but they can still indicate their course of action while interacting with your future product.

By observing their actions and collecting user feedback, you can find out which parts work right, which don't, and what has to be fixed. The main goal here is to check if users can easily get what they need from your app or website.

5 'quality components' of usability. We'll go through

- **Learnability:** How easy is it for users to accomplish basic tasks the first time they encounter the design?
- **Efficiency:** Once users have learned the design, how quickly can they perform tasks?
- **Memorability:** When users return to the design after a period of not using it, how easily can they reestablish proficiency?
- **Errors:** How many errors do users make, how severe are these errors, and how easily can they recover from the errors?



Source: Nielsen Norman Group

- **Usability testing** helps you understand how easy it is for your product, service or experience to be used by its audience. Can they understand how to put its features to use to meet their goals and solve their problems? And can they actually use those features?

Why IA matters for your business

Well-structured information architecture is crucial for businesses as it significantly impacts the usability, accessibility, and overall user experience of a website or application. Improved user engagement is one of the primary benefits worth mentioning here.

By providing users with a clear and logical structure of the product, businesses help them find the necessary information faster and more efficiently. This may lead to higher conversion rates, increased user retention rates, and, ultimately, provide businesses with a greater return on investment (ROI).

What is more, a well-designed IA can enhance the search engine optimization efforts of a website. With the help of appropriate labeling information architecture improves the website's ranking on search engine result pages. This ensures the increased website traffic and visibility, benefiting the business as a result



Chapter at a glance

- Information architecture (IA)
- Information architect role
- What are the types of website navigation?
- UI components for mobile navigation apps
- Build a website hierarchy for user-friendly navigation
- What is mobile navigation?
- Usability testing
- Why IA matters for your business





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