

Affinity Mapping <i>Cluster observations into themes to reveal patterns and insights.</i> Affinity mapping is a synthesis technique where individual research notes, observations, or ideas are grouped by similarity. It helps teams move from raw evidence to themes, needs, opportunities, and design directions while keeping the underlying evidence visible. UX METHOD	Card Sorting <i>Learn how users naturally group and label information.</i> Card sorting is a research method in which participants organize topics, features, or content into groups that make sense to them. Open sorting reveals users' natural categories; closed sorting tests an existing structure; hybrid sorting combines both. UX METHOD	Competitive & Comparative Analysis <i>Study competitors and analogous products.</i> Competitive analysis examines how competitors and analogous products solve similar problems, revealing conventions, gaps, and opportunities. It informs strategy without encouraging blind copying. UX METHOD
Contextual Personas & Segments <i>Define meaningful user groups from evidence.</i> Segmentation and contextual personas group users by meaningful differences in goals, behaviors, and contexts, grounded in research, so teams design for real distinct needs rather than an average user. UX METHOD	Design Principles <i>Create shared rules that guide consistent design decisions.</i> Design principles are concise statements describing the qualities a product or experience should consistently demonstrate. Good principles are specific enough to influence tradeoffs but broad enough to apply across features. UX METHOD	How Might We (HMW) <i>Reframe problems as opportunities for ideation.</i> 'How Might We' questions reframe problems as open opportunities, priming productive ideation. Well-scoped HMW statements are neither too broad nor too narrow, unlocking creative solutions. UX METHOD
Journey Mapping <i>Visualize the user's end-to-end experience across stages and touchpoints.</i> Journey mapping captures what users do, think, feel, and encounter over time. It helps teams see the experience as a connected system rather than a collection of screens, revealing friction, gaps, emotional peaks, and opportunities. UX METHOD	Prioritization Frameworks <i>Structured ways to decide what to build first.</i> Prioritization frameworks like impact-effort matrices, RICE, and MoSCoW help teams decide what to build first based on value, effort, and confidence, making tradeoffs explicit and defensible. UX METHOD	Stakeholder Interviews <i>Align on goals and constraints with stakeholders.</i> Stakeholder interviews gather goals, constraints, assumptions, and success criteria from the people invested in a project. They align teams and surface business context that shapes design. UX METHOD

Storyboarding Sketch a sequence to tell an experience story. Storyboarding sketches a sequence of frames depicting a user's experience over time, making scenarios concrete and shareable. It helps teams empathize and spot gaps in a flow. UX METHOD	Task Analysis Break a task into its component steps and goals. Task analysis decomposes a task into the steps, decisions, and goals users pursue to complete it. It reveals complexity, friction, and opportunities to simplify. UX METHOD	UX Survey Collect structured feedback from a larger sample of users. UX surveys gather self-reported attitudes, perceptions, needs, or satisfaction at scale. They are useful for quantifying patterns discovered qualitatively, tracking experience over time, segmenting users, or recruiting participants for deeper research. UX METHOD
Usability Test Observe representative users trying realistic tasks to identify usability problems. Usability testing evaluates whether people can understand and operate a design. Participants attempt realistic tasks while the researcher observes behavior, errors, hesitation, workarounds, and comments. The goal is to uncover problems, not to test the participant. UX METHOD	User Interview Explore users' goals, behaviors, motivations, constraints, and experiences through conversation. User interviews are semi-structured conversations designed to uncover how people think and behave in a relevant context. They are most useful for understanding experiences and decision-making rather than asking participants to predict what they would do with a hypothetical feature. UX METHOD	User Personas Create evidence-based archetypes representing important user patterns. Personas synthesize recurring behaviors, goals, needs, constraints, and contexts observed in research. They help teams discuss users consistently and evaluate whether design decisions serve meaningful groups rather than an imaginary 'average user'. UX METHOD
Workshops & Co-Design Collaborative sessions that generate and align ideas. Design workshops and co-design bring stakeholders and users together to generate ideas, build shared understanding, and align on direction. Good facilitation turns diverse input into actionable outcomes. UX METHOD	Affordances Design objects so their appearance suggests how they can be used. Affordances are properties of an object that make certain actions possible or apparent. In digital products, shape, depth, position, and familiar control patterns help users infer whether something can be clicked, dragged, typed into, expanded, or manipulated. INTERACTION PRINCIPLE	Conceptual Model Help users form a simple, accurate understanding of how the system works. A conceptual model is the coherent explanation users develop about the system's structure, objects, relationships, and rules. Interfaces become easier to learn when visual organization and behavior reinforce one consistent mental picture. INTERACTION PRINCIPLE

Constraints <i>Limit possible actions to prevent mistakes and simplify decisions.</i> Constraints reduce error by making invalid, unsafe, or irrelevant actions unavailable or difficult. They can be physical, logical, semantic, or cultural. In interfaces, constraints guide users toward valid next steps and reduce cognitive load. INTERACTION PRINCIPLE	Discoverability <i>Make available actions and features easy to notice and understand.</i> Discoverability is the extent to which people can identify what they can do in an interface without needing instructions. Clear hierarchy, visible controls, meaningful labels, and predictable placement reduce hunting and help users build confidence quickly. INTERACTION PRINCIPLE	Feedback <i>Show users what happened after every meaningful action.</i> Feedback closes the action-response loop. A system should acknowledge user input, communicate progress, success, failure, and current state, and do so at a speed appropriate to the task. This prevents uncertainty and repeated actions. INTERACTION PRINCIPLE
Mapping <i>Make the relationship between controls and outcomes intuitive.</i> Mapping describes how controls correspond to their effects. Natural mapping reduces translation effort by aligning control position, direction, or grouping with the thing being controlled. Good mapping helps users predict results before acting. INTERACTION PRINCIPLE	Signifiers <i>Provide perceivable cues that communicate where and how interaction should happen.</i> Signifiers are signals that tell users what to do. They include labels, icons, underlines, handles, arrows, highlights, sounds, cursor changes, and spatial cues. Good signifiers turn possible actions into understandable actions. INTERACTION PRINCIPLE	Aesthetic and Minimalist Design <i>Keep interfaces focused; every extra unit of content competes for attention.</i> This heuristic advises that interfaces should not contain information that is irrelevant or rarely needed. Every extra unit of content competes with the relevant units and diminishes their relative visibility, so restraint improves focus. SUPPLEMENTAL UX PRINCIPLE
Choice Overload <i>Too many options can overwhelm users and make decisions harder.</i> Choice overload occurs when the number or complexity of available options creates excessive decision effort. In interface design, the goal is not to remove meaningful choice, but to organize, prioritize, and progressively reveal options so users can confidently select what fits their goal. SUPPLEMENTAL UX PRINCIPLE	Consistency and Standards <i>Follow platform and product conventions so the same thing means the same thing.</i> Consistency and standards means users should not have to wonder whether different words, situations, or actions mean the same thing. Following platform conventions and maintaining internal consistency reduces the effort required to learn an interface. SUPPLEMENTAL UX PRINCIPLE	Error Prevention <i>Design the interface so common mistakes are difficult or impossible to make.</i> Error prevention focuses on eliminating error-prone conditions before an error occurs. Strong designs use constraints, clear defaults, validation, confirmations for high-impact actions, and forgiving input formats so users are less likely to enter an invalid state in the first place. SUPPLEMENTAL UX PRINCIPLE

Flexibility and Efficiency of Use <i>Let novices succeed while giving experts accelerators to work faster.</i>	Help Users with Errors <i>Express errors in plain language and offer a constructive way forward.</i>	Help and Documentation <i>When help is needed, make it easy to search, task-focused, and concise.</i>
This heuristic recommends serving both inexperienced and experienced users. Accelerators — unseen by novices — can speed up interaction for experts, and allowing users to tailor frequent actions supports efficiency without harming approachability.	This heuristic states that error messages should be expressed in plain language, precisely indicate the problem, and constructively suggest a solution. Good error recovery turns a failure into a guided path back to success.	This heuristic acknowledges that although it is best if a system can be used without documentation, it may be necessary to provide help. Such help should be easy to search, focused on the user's task, list concrete steps, and stay concise.
SUPPLEMENTAL UX PRINCIPLE	SUPPLEMENTAL UX PRINCIPLE	SUPPLEMENTAL UX PRINCIPLE
Match Between System and Real World <i>Speak the users' language with familiar concepts, words, and conventions.</i>	Paradox of the Active User <i>Users often start using a product immediately instead of reading instructions first.</i>	Progressive Disclosure <i>Show essential information first and reveal advanced complexity only when it becomes useful.</i>
This heuristic advises that the system should speak the users' language, using words, phrases, and concepts familiar to them rather than internal jargon. Information should appear in a natural and logical order that matches real-world expectations.	The paradox of the active user describes a common behavior: people prefer acting toward their goal rather than pausing to study documentation. Good products therefore teach through the interface itself, using familiar patterns, contextual guidance, safe exploration, and feedback instead...	Progressive disclosure manages interface complexity by presenting the most important controls and information up front while keeping secondary or advanced options available on demand. It helps novice users focus without permanently limiting expert users.
SUPPLEMENTAL UX PRINCIPLE	SUPPLEMENTAL UX PRINCIPLE	SUPPLEMENTAL UX PRINCIPLE
Recognition Rather Than Recall <i>Make actions and information visible so users do not have to remember them.</i>	User Control and Freedom <i>Provide clear exits like undo and redo so users can recover from mistakes.</i>	Visibility of System Status <i>Keep users informed about what is happening through timely feedback.</i>
Recognition is generally easier than recalling information from memory. Interfaces should therefore expose relevant choices, recent items, examples, labels, and contextual cues at the point of use rather than requiring users to remember commands, paths, or information from earlier screens.	User control and freedom is a usability heuristic: users often perform actions by mistake and need a clearly marked way to leave the unwanted state. Support for undo and redo lets people explore without fear of irreversible consequences.	Visibility of system status is a core usability heuristic: the system should always keep users informed about what is going on through appropriate, timely feedback. Clear status reduces uncertainty and builds trust.
SUPPLEMENTAL UX PRINCIPLE	SUPPLEMENTAL UX PRINCIPLE	SUPPLEMENTAL UX PRINCIPLE

Working Memory <i>Reduce how much information users must hold in mind while completing a task.</i> Working memory is the limited mental workspace used to hold and manipulate information during an activity. Interfaces become harder when users must remember codes, previous selections, hidden values, or instructions while moving between screens. Externalizing information into the interface reduces cognitive effort and errors. SUPPLEMENTAL UX PRINCIPLE	Accot-Zhai Steering Law <i>Make constrained pointer or touch paths short and wide enough to navigate comfortably.</i> The Accot-Zhai Steering Law extends pointing research to movement through constrained paths. Time and difficulty increase when users must steer through long, narrow tunnels, making it relevant to hierarchical menus, drag paths, sliders, and gesture regions. UX THEORY	Aesthetic-Usability Effect <i>People often perceive attractive products as easier to use.</i> Aesthetic quality can positively influence perceived usability, trust, and tolerance for minor friction. This does not mean appearance can compensate for serious usability problems; rather, a coherent and polished visual design can improve first impressions and emotional response. UX THEORY
Banner Blindness <i>Users ignore anything resembling ads.</i> Banner blindness is the tendency to overlook elements that look like advertising, even when they contain useful content. Important information must avoid ad-like styling and placement. UX THEORY	Campbell's Law <i>Be careful when a metric becomes a target because people may game it.</i> Campbell's Law warns that when a quantitative measure is used heavily for decision-making, pressure to optimize that measure can distort behavior and degrade the underlying outcome. UX teams should therefore pair metrics with qualitative evidence and guardrails. UX THEORY	Doherty Threshold <i>Keep interactive system response fast enough to preserve momentum.</i> The Doherty Threshold describes the productivity and engagement benefits of rapid human-computer feedback. When response feels immediate, users remain in the task; when delays appear, the system should communicate progress and avoid uncertainty. UX THEORY
F-Pattern & Z-Pattern Scanning <i>People scan pages in predictable shapes.</i> Eye-tracking shows people often scan text-heavy pages in an F-pattern and simpler pages in a Z-pattern. Designing along these paths places key content where eyes naturally go. UX THEORY	Figure-Ground <i>People instinctively separate a focal figure from its background.</i> Figure-ground is a Gestalt principle describing how the visual system separates a subject (figure) from its surroundings (ground). Clear contrast, depth, and layering help users know what to focus on and what is context. UX THEORY	Fitts' Law <i>Make important targets large and easy to reach.</i> Fitts' Law predicts that pointing time depends on target size and distance. In interface design, larger targets and shorter travel distances make selection faster and reduce errors, especially on touch devices or for users with motor limitations. UX THEORY

Flow Theory (Csikszentmihalyi)

Balance challenge and skill for deep engagement.

Flow theory describes optimal engagement when challenge and skill are balanced, attention is focused, goals are clear, and feedback is immediate. Interfaces can support flow by removing friction.

UX THEORY

Goal-Gradient Effect

Motivation increases as users feel closer to completing a goal.

The goal-gradient effect describes the tendency for effort to increase as progress toward a goal becomes more visible and attainable. Interfaces can use clear milestones and progress indicators to make advancement tangible without manipulating users.

UX THEORY

Gutenberg Diagram

The eye sweeps from top-left to bottom-right.

The Gutenberg diagram describes how, in evenly distributed layouts, reading gravity pulls the eye from the top-left primary area to the bottom-right terminal area. It informs placement of key elements.

UX THEORY

Hick's Law

Reduce and organize choices to shorten decision time.

Hick's Law states that decision time generally increases as the number and complexity of options grows. Designers can reduce decision burden by prioritizing, categorizing, recommending, and progressively revealing options.

UX THEORY

Inverted Pyramid

Lead with the most important information.

The inverted pyramid, from journalism, structures content with the most important information first, then supporting detail. It suits scanning users who may not read to the end.

UX THEORY

Jakob's Law

Leverage conventions users already know from other products.

Jakob's Law reflects that users spend most of their time using other interfaces, so they arrive with expectations shaped elsewhere. Familiar conventions reduce learning costs and let users focus on their goals rather than decoding a unique interaction model.

UX THEORY

Krug's Law of Usability

*Don't make users think;
interfaces should be obvious.*

Steve Krug's 'Don't Make Me Think' argues that interfaces should be self-evident, requiring minimal thought. Every question a UI raises adds cognitive work, so clarity and obviousness are paramount.

UX THEORY

Law of Closure

The mind completes missing parts to perceive a whole, familiar shape.

The law of closure is a Gestalt principle stating that people perceive incomplete shapes as complete by mentally filling gaps. Interfaces can use implied form to communicate structure economically, letting users recognize objects from partial cues.

UX THEORY

Law of Common Region

Elements inside the same bounded area are perceived as related.

The law of common region is a Gestalt grouping principle: people tend to see items enclosed within the same visual boundary as belonging together. Cards, panels, backgrounds, and containers can therefore communicate structure without extra explanation.

UX THEORY

Law of Continuity <i>The eye follows the smoothest path, perceiving aligned elements as connected.</i>	Law of Locality <i>Related controls should be near their effect.</i>	Law of Proximity <i>Items close together are perceived as belonging together.</i>
The law of continuity is a Gestalt principle: elements arranged on a line or curve are perceived as more related than elements not on that path. Alignment and flow guide the eye and imply sequence or grouping.	The law of locality holds that controls should be placed close to the objects or content they affect, reducing search and cognitive effort by keeping cause and effect together.	Proximity is one of the strongest visual grouping cues. Spacing communicates relationships: related elements should usually be closer to each other than to unrelated elements, creating an understandable hierarchy before users read labels.
UX THEORY	UX THEORY	UX THEORY
Law of Prägnanz <i>People tend to interpret complex visuals in the simplest coherent form.</i>	Law of Similarity <i>Elements that look alike are perceived as related.</i>	Law of Uniform Connectedness <i>Visually connected elements are perceived as strongly related.</i>
The Gestalt principle of Prägnanz suggests that people prefer simple, stable, orderly interpretations of visual information. Clear shapes, hierarchy, and reduced visual ambiguity help users understand interfaces quickly.	Similarity groups elements through shared color, shape, size, typography, or visual treatment. Consistent styles help users infer which objects share function or status, while intentional differences can communicate distinct roles.	Uniform connectedness describes the strong grouping effect created by lines, shared shapes, or explicit visual connections. It can communicate relationships that proximity alone might not make clear.
UX THEORY	UX THEORY	UX THEORY
Miller's Law <i>Respect limited working-memory capacity by grouping and externalizing information.</i>	Norman Doors (Design of Everyday Things) <i>Poor signifiers cause confusion about how to act.</i>	Occam's Razor <i>Prefer the simplest solution that adequately explains or solves the problem.</i>
Miller's work is often associated with limits on how many discrete items people can hold in short-term memory. Modern UX practice should treat the exact number as context-dependent while retaining the useful design lesson: avoid overwhelming memory and organize information into meaningful chunks.	A 'Norman door' is one whose design gives the wrong cues about how to operate it, illustrating how missing or misleading signifiers cause errors. The lesson: signifiers must match behavior.	Occam's Razor is a reasoning principle favoring unnecessary complexity reduction when multiple solutions are otherwise sufficient. In UX, it encourages designers to remove features, steps, rules, and visual treatments that do not improve the user's outcome.
UX THEORY	UX THEORY	UX THEORY

Paradox of Choice <i>Too many options can reduce satisfaction and action.</i>	Pareto Principle <i>Focus effort on the small set of causes or features that produce most value.</i>	Parkinson's Law <i>Reduce available effort and unnecessary steps so tasks do not expand without benefit.</i>
The paradox of choice holds that while some choice is good, an excess can overwhelm people, reduce satisfaction, and even prevent decisions. It underlies the value of curation and sensible defaults.	The Pareto Principle is a heuristic that a minority of inputs often account for a majority of outcomes. In UX, it can guide prioritization: identify high-frequency tasks, high-impact pain points, or high-value user segments before optimizing the long tail.	Parkinson's Law originally describes work expanding to fill the time available. In UX, it is useful as a reminder that users value efficient paths and that overly generous processes, long forms, or unbounded decisions can invite unnecessary effort.
UX THEORY	UX THEORY	UX THEORY
Peak-End Rule <i>Design key moments and endings because they strongly shape remembered experience.</i>	Poka-Yoke Principle <i>Design that makes errors impossible or obvious.</i>	Postel's Law <i>Accept reasonable user input flexibly while keeping system output predictable.</i>
The peak-end rule suggests that people often evaluate an experience disproportionately through its most intense moment and its ending rather than by averaging every moment. UX teams can improve remembered quality by addressing painful peaks and creating clear, reassuring conclusions.	Poka-yoke, from lean manufacturing, is designing so that errors are prevented or immediately obvious. In UX it means constraints, smart defaults, and validation that make mistakes hard to make.	Postel's Law, often summarized as being liberal in what you accept and conservative in what you send, can inspire tolerant input handling. Modern security practice requires care: flexibility should not mean accepting ambiguous or unsafe input.
UX THEORY	UX THEORY	UX THEORY
Progressive Reduction <i>Simplify UI as users gain proficiency.</i>	Sansation / Progressive Disclosure of Complexity <i>Reveal complexity only as users need it.</i>	Serial Position Effect <i>People tend to remember items at the beginning and end of a sequence better.</i>
Progressive reduction is the idea that an interface can gradually reduce guidance and visual scaffolding as a user becomes proficient, streamlining for experts while supporting novices initially.	Layering complexity so users meet it gradually keeps interfaces approachable while preserving power. It is closely tied to progressive disclosure and Tesler's conservation of complexity.	The serial position effect combines primacy and recency tendencies: items encountered first or most recently often receive stronger recall than those in the middle. Designers can use sequence intentionally while avoiding the assumption that every list is remembered the same way.
UX THEORY	UX THEORY	UX THEORY

Speed-Accuracy Tradeoff <i>Faster actions tend to be less accurate.</i> The speed-accuracy tradeoff describes how acting faster generally reduces accuracy and vice versa. Interfaces should match target size and confirmation to the cost of errors. UX THEORY	Tesler's Law <i>Every system contains irreducible complexity; decide where that complexity should live.</i> Tesler's Law, or the law of conservation of complexity, proposes that some complexity cannot be eliminated and must be handled by either the user or the system. Good product design shifts avoidable technical complexity away from users while preserving necessary control. UX THEORY	Von Restorff Effect <i>Distinctive items are more likely to attract attention and be remembered.</i> The Von Restorff or isolation effect describes how an item that differs from otherwise similar items becomes more salient. In UX, distinction can highlight a primary action or critical information, but the effect weakens when too many elements compete for attention. UX THEORY
Zeigarnik Effect <i>Incomplete tasks remain mentally salient and can motivate return to completion.</i> The Zeigarnik effect refers to greater mental accessibility of unfinished or interrupted tasks in some contexts. Interfaces can support continuation by preserving progress, showing unfinished state, and making the next step clear. UX THEORY	Aesthetic-Usability in Trust (Halo) <i>Beauty can inflate perceived trust and capability.</i> A closely related effect to the halo effect: attractive design can inflate perceptions of trust, credibility, and capability beyond what function warrants. Designers must ensure substance matches the impression polish creates. COGNITIVE BIAS	Ambiguity Effect <i>People avoid options with unknown probabilities.</i> The ambiguity effect is the tendency to avoid options for which information is missing, favoring known risks over unknown ones. Clear information reduces avoidance of good but uncertain choices. COGNITIVE BIAS
Anchoring in Estimation <i>First numbers bias later estimates.</i> Anchoring affects not just prices but any estimate: the first number seen skews subsequent judgments. It matters in ratings, sliders with defaults, and quantity inputs. COGNITIVE BIAS	Automation Bias <i>People over-trust automated suggestions.</i> Automation bias is the tendency to over-rely on automated systems and accept their output uncritically. As AI features grow, designs must encourage appropriate scrutiny and easy correction. COGNITIVE BIAS	Availability Heuristic <i>People judge likelihood by how easily examples come to mind.</i> The availability heuristic is a mental shortcut where people estimate frequency or probability based on how easily instances are recalled. Vivid, recent, or emotional examples feel more common than they are, skewing risk perception and decisions. COGNITIVE BIAS

Bandwagon Effect <i>People adopt beliefs or actions because others have.</i> The bandwagon effect is the tendency to do or believe things because many others do. Related to social proof, it can genuinely help users under uncertainty but can also spread poor choices if presented misleadingly. COGNITIVE BIAS	Bandwagon vs Herd Behavior <i>People follow crowds, amplifying popular choices.</i> Herd behavior describes how individuals mimic the actions of a larger group, amplifying popular choices. In UX it underlies trends, virality, and social features, and can help or mislead depending on honesty. COGNITIVE BIAS	Bounded Rationality <i>People decide with limited time and information.</i> Bounded rationality recognizes that people make decisions within limits of time, information, and cognitive capacity, satisficing rather than optimizing. Interfaces should support good-enough decisions. COGNITIVE BIAS
Cheerleader Effect <i>People appear more attractive in a group.</i> The cheerleader effect is the tendency to perceive individual items as more appealing when presented in a group. In UX, grouping can enhance perceived quality, though individual scrutiny may differ. COGNITIVE BIAS	Choice-Supportive Bias <i>People remember their choices as better than they were.</i> Choice-supportive bias is the tendency to retroactively attribute positive qualities to an option one selected. It can inflate satisfaction reporting and should be considered when interpreting self-reported preference data. COGNITIVE BIAS	Clustering Illusion <i>Seeing patterns in random data.</i> The clustering illusion is the tendency to see patterns or streaks in random data. In analytics and research it can lead teams to over-interpret noise as signal. COGNITIVE BIAS
Confirmation Bias <i>People favor information that confirms existing beliefs.</i> Confirmation bias is the tendency to search for, interpret, and recall information in a way that confirms one's prior beliefs. In UX and research it can distort how teams read data and how users interpret content, so evidence must be sought and presented even-handedly. COGNITIVE BIAS	Curse of Knowledge <i>Experts forget what it's like not to know.</i> The curse of knowledge is a bias where people who know something find it hard to imagine not knowing it. It leads experts to design or write for themselves, using jargon and skipping steps novices need. COGNITIVE BIAS	Decoy Effect <i>Adding a third option shifts preference between two others.</i> The decoy effect (asymmetric dominance) occurs when introducing a third, strategically inferior option changes preference between two existing options. It is common in pricing and must be used transparently to inform rather than manipulate. COGNITIVE BIAS

Default Effect <i>People tend to stick with pre-selected options.</i> The default effect is the tendency to accept pre-set options rather than actively change them. Defaults are powerful and carry ethical weight: they should reflect users' likely best interest, especially for privacy and money. COGNITIVE BIAS	Dunning-Kruger Effect <i>Low-skill users may overestimate their competence, and vice versa.</i> The Dunning-Kruger effect describes how people with limited knowledge in an area may overestimate their competence, while experts may underestimate theirs. It reminds designers that users' self-assessed ability is unreliable. COGNITIVE BIAS	Empathy Gap <i>Current state clouds judgment of other states.</i> The empathy gap is the difficulty of predicting how one will feel or behave in a different emotional or physical state. Designs should account for users in stressed, rushed, or emotional states. COGNITIVE BIAS
Fear of Missing Out (FOMO) <i>Anxiety that others are having rewarding experiences one misses.</i> FOMO is the apprehension that others are enjoying experiences from which one is absent. In UX it can drive engagement but easily becomes a manipulative dark pattern when it manufactures anxiety rather than communicating real value. COGNITIVE BIAS	Framing Effect (Choice) <i>Presentation of options shapes decisions.</i> Beyond message framing, the way choices themselves are presented — order, defaults, emphasis — shapes decisions. Ethical design frames options to aid understanding, not to manipulate. COGNITIVE BIAS	Framing by Contrast (Anchoring Layout) <i>Adjacent items reframe perceived value.</i> Placing items next to each other reframes their perceived value through contrast. Ethical layout uses this to aid genuine comparison rather than mislead. COGNITIVE BIAS
Framing of Defaults (Nudging) <i>Defaults act as powerful nudges.</i> Defaults nudge behavior strongly because people tend to accept them. Ethical nudging sets defaults in users' genuine interest and keeps changing them easy and transparent. COGNITIVE BIAS	Framing via Anchoring in Pricing <i>First prices anchor all later value judgments.</i> In pricing, the first number users see anchors their sense of value for everything after. Ethical pricing uses honest anchors and clear comparisons so users judge value accurately rather than being manipulated. COGNITIVE BIAS	Goal-Gradient in Loyalty <i>Effort rises as a reward comes into reach.</i> Applying the goal-gradient effect to loyalty, people accelerate effort as a reward nears. Progress toward rewards visibly closing motivates completion, useful in loyalty and progress design when tied to genuine value. COGNITIVE BIAS

Halo Effect <i>One positive trait colors overall perception.</i> The halo effect is the tendency for a positive impression in one area to influence opinion in others. A polished visual design, for instance, can make users assume a product is also more trustworthy or capable. COGNITIVE BIAS	Hyperbolic Discounting <i>People prefer smaller immediate rewards over larger later ones.</i> Hyperbolic discounting is the tendency to strongly prefer immediate rewards over larger delayed ones. It explains procrastination and impulse behavior, and informs how products frame long-term value versus instant gratification. COGNITIVE BIAS	IKEA Effect <i>People value things more when they helped create them.</i> The IKEA effect is the tendency to place higher value on products one has partially created or assembled. In UX, letting users invest effort in setup or customization can increase attachment and perceived value. COGNITIVE BIAS
Mere Exposure Effect <i>Familiarity breeds preference.</i> The mere exposure effect is the tendency to prefer things simply because they are familiar. Repeated, consistent exposure to patterns and brands can increase comfort and preference. COGNITIVE BIAS	Miller's Chunk Limit (Working Memory Load) <i>People struggle to hold many items in mind at once.</i> People can hold only a limited number of items in working memory at once, so interfaces should chunk information and avoid requiring users to remember many things simultaneously across steps. COGNITIVE BIAS	Negativity Bias <i>Negative experiences weigh more heavily than positive ones.</i> Negativity bias is the tendency for negative events and information to have a greater psychological impact than equally intense positive ones. A single bad experience can outweigh many good ones, raising the stakes for error handling. COGNITIVE BIAS
Peak-End Bias in Memory <i>Memory of an experience is dominated by its peaks and its ending.</i> People's memory of experiences is disproportionately shaped by emotional peaks and endings rather than duration. Designing strong positive peaks and clean endings improves how the whole experience is remembered. COGNITIVE BIAS	Planning Fallacy <i>People underestimate time and effort required.</i> The planning fallacy is the tendency to underestimate how long tasks will take, even against past evidence. It affects both users estimating effort and teams estimating design and build work. COGNITIVE BIAS	Present Bias <i>People overvalue immediate rewards.</i> Present bias, related to hyperbolic discounting, is overweighting immediate rewards over future ones. It shapes procrastination and impulse, and informs how products frame long-term value. COGNITIVE BIAS

Priming <i>Prior exposure influences later perception and response.</i>	Recency Bias <i>Recent information disproportionately influences judgment.</i>	Restraint Bias <i>People overestimate their self-control.</i>
Priming is when exposure to one stimulus influences the response to a later one, often unconsciously. In UX, earlier words, images, or interactions can shape how users interpret and act on what follows.	Recency bias is the tendency to weight the most recent information most heavily. In UX and research it affects how users recall experiences and how teams interpret the latest data over longer trends.	Restraint bias is overestimating one's ability to resist temptation. It matters in ethical design around engagement, spending, and wellbeing, cautioning against exploiting overconfidence.
COGNITIVE BIAS	COGNITIVE BIAS	COGNITIVE BIAS
Satisficing <i>People choose the first adequate option.</i>	Serial Position in Menus <i>First and last items get more attention.</i>	Spacing Effect <i>Learning spread over time sticks better.</i>
Satisficing is choosing the first option that meets a threshold rather than the optimal one. Users often click the first plausible link or result, so early options must be strong and clear.	Building on the serial position effect, items at the start and end of menus and lists receive disproportionate attention and recall. Important options should occupy these prominent positions.	The spacing effect shows that information reviewed over spaced intervals is retained better than massed study. It informs onboarding, tips, and learning products.
COGNITIVE BIAS	COGNITIVE BIAS	COGNITIVE BIAS
Status Quo Bias <i>People prefer things to stay the same.</i>	Survivorship Bias <i>Focusing on successes while ignoring failures distorts conclusions.</i>	Weber-Fechner Law <i>Perceived change is relative to existing magnitude.</i>
Status quo bias is the preference for the current state, making users resist change even when alternatives are better. It shapes reactions to redesigns and defaults, and calls for careful change management.	Survivorship bias is the error of concentrating on people or things that passed a selection process while overlooking those that did not. In research and analytics it can lead teams to draw false conclusions from visible successes alone.	The Weber-Fechner law states that the perceived difference between stimuli is proportional to their magnitude — a change is noticed relative to what's already there. It informs pricing perception, sizing, and visual difference.
COGNITIVE BIAS	COGNITIVE BIAS	COGNITIVE BIAS

Zeigarnik in Progress (Completion Bias) <i>People are driven to finish started tasks.</i> Completion bias is the drive to finish tasks that have been started, related to the Zeigarnik effect. Showing partial progress and clear remaining steps can motivate users to complete valuable flows. COGNITIVE BIAS	Analysis Paralysis <i>Prevent excessive information or choice from blocking action.</i> Analysis paralysis occurs when the effort of comparing options becomes so high that users delay or avoid making a decision. It is especially likely when options are numerous, poorly differentiated, high stakes, or difficult to reverse. PSYCHOLOGY CONCEPT	Anchoring Bias <i>People rely heavily on the first piece of information when judging value.</i> Anchoring bias is the tendency to rely too heavily on the first piece of information encountered when making decisions. Subsequent judgments are made relative to that anchor. In UX this shapes how users perceive prices, quantities, and options. PSYCHOLOGY CONCEPT
Attention & Focus <i>How people allocate limited mental attention.</i> Attention is the limited resource that determines what users perceive and process. Understanding how attention is captured, held, and divided guides where and how to present important content. PSYCHOLOGY CONCEPT	Chunking <i>Group information into meaningful units that are easier to process and remember.</i> Chunking helps people manage limited working memory by organizing many small pieces into larger meaningful groups. Good visual and semantic grouping makes interfaces easier to scan, remember, and navigate. PSYCHOLOGY CONCEPT	Cognitive Bias <i>Account for predictable shortcuts and distortions in human judgment.</i> Cognitive biases are systematic tendencies that influence attention, memory, perception, and decision-making. In UX they can explain user behavior, but they must be applied ethically: understanding a bias should improve clarity and choice rather than manipulate users against their interests. PSYCHOLOGY CONCEPT
Cognitive Dissonance <i>Reduce discomfort when the interface contradicts users' expectations or beliefs.</i> Cognitive dissonance occurs when people encounter conflicting beliefs, expectations, or actions. In interfaces, dissonance can arise when a trustworthy-looking experience behaves unexpectedly, when labels do not match outcomes, or when product promises conflict with actual behavior. PSYCHOLOGY CONCEPT	Cognitive Load <i>Reduce unnecessary mental effort required to understand and operate the interface.</i> Cognitive load is the amount of working-memory capacity a task consumes. Designers cannot remove the inherent complexity of every task, but they can reduce avoidable load by simplifying choices, clarifying hierarchy, externalizing memory, and keeping interactions consistent. PSYCHOLOGY CONCEPT	Contextual Inquiry <i>Study users in the real environment where the work happens.</i> Contextual inquiry combines observation and interview in the user's natural setting. By seeing tools, interruptions, workarounds, social factors, and environmental constraints directly, researchers uncover needs that users may forget to mention in a conventional interview. PSYCHOLOGY CONCEPT

Decision Fatigue <i>Repeated decisions degrade decision quality.</i> Decision fatigue is the deterioration of decision quality after making many choices. Reducing unnecessary decisions and offering sensible defaults preserves users' mental energy. PSYCHOLOGY CONCEPT	Emotional Design <i>Design shapes users' feelings and connection.</i> Emotional design, per Don Norman, works on visceral, behavioral, and reflective levels to shape how products feel, not just function. Emotion drives satisfaction, loyalty, and forgiveness of flaws. PSYCHOLOGY CONCEPT	Flow <i>Support sustained concentration by balancing challenge, clarity, and feedback.</i> Flow is a state of deep engagement in which attention is focused on an activity and interruptions fade. Interfaces can support flow by reducing unnecessary friction, keeping goals clear, providing immediate feedback, and matching interaction complexity to users' skill. PSYCHOLOGY CONCEPT
Framing Effect <i>Choices are influenced by how information is presented, not just its content.</i> The framing effect describes how people react differently to the same information depending on how it is presented — for example as a gain or a loss. Wording, emphasis, and context shape perception and decisions. PSYCHOLOGY CONCEPT	Habit Formation <i>How repeated behaviors become automatic.</i> Habit formation is the process by which repeated behaviors become automatic through cue, routine, and reward loops. Ethical products support habits users genuinely want. PSYCHOLOGY CONCEPT	Habituation & Novelty <i>Repeated stimuli fade; novelty regains attention.</i> Habituation is the fading of response to repeated stimuli, while novelty recaptures attention. This explains banner blindness and why overused alerts stop working, and why change draws the eye. PSYCHOLOGY CONCEPT
Long-Term Memory & Schemas <i>Knowledge structures shape understanding.</i> Long-term memory stores knowledge in schemas — mental structures built from experience. Interfaces that align with existing schemas are easier to learn; new ones require deliberate teaching. PSYCHOLOGY CONCEPT	Loss Aversion <i>People feel losses more strongly than equivalent gains.</i> Loss aversion is the tendency to prefer avoiding losses over acquiring equivalent gains; the pain of losing is psychologically about twice as powerful as the pleasure of gaining. It influences how users weigh risk and change. PSYCHOLOGY CONCEPT	Memory Biases & Recall <i>How memory distorts recalled experience.</i> Memory is reconstructive and biased — shaped by peaks, endings, recency, and choice. Since users act on remembered rather than actual experience, key moments and endings matter disproportionately. PSYCHOLOGY CONCEPT

Mental Model <i>Design around users' existing beliefs about how things should work.</i>	Motivation (Intrinsic & Extrinsic) <i>What drives users to act and persist.</i>	Perception & Gestalt <i>The mind organizes sensory input into wholes.</i>
A mental model is the user's internal representation of a system or task. People bring models from prior experience, culture, and learned conventions. Interfaces are easier to understand when they align with useful existing models or clearly teach a new one.	Motivation drives behavior and can be intrinsic (enjoyment, mastery, purpose) or extrinsic (rewards, pressure). Sustainable engagement leans on intrinsic motivation rather than manipulation.	Perception is how the brain organizes and interprets sensory input, described in part by Gestalt principles. Understanding perception explains how layout, grouping, and contrast communicate.
PSYCHOLOGY CONCEPT	PSYCHOLOGY CONCEPT	PSYCHOLOGY CONCEPT
Persuasion & Influence (Psychology) <i>Mental principles underlying influence.</i>	Reciprocity & Social Norms <i>Social rules shape online behavior.</i>	Selective Attention <i>Design for the fact that users notice only a fraction of what is on screen.</i>
The psychology of persuasion explains why people say yes, through principles like reciprocity, commitment, social proof, and authority. Ethical application informs and empowers rather than manipulates.	People bring social norms — reciprocity, fairness, politeness — to interactions with products and each other. Designs that honor these norms feel respectful and build trust.	Selective attention allows people to focus on information relevant to their current goal while filtering competing stimuli. Users can therefore miss important content that is visually present if it appears unrelated, expected, repetitive, or outside their attentional focus.
PSYCHOLOGY CONCEPT	PSYCHOLOGY CONCEPT	PSYCHOLOGY CONCEPT
Self-Determination Theory <i>Autonomy, competence, and relatedness drive motivation.</i>	Short-Term Memory <i>Do not require users to remember information that the interface can keep visible.</i>	Social Proof <i>People look to others' behavior to guide their own decisions.</i>
Self-determination theory holds that people are motivated by needs for autonomy, competence, and relatedness. Designs that support these needs foster genuine, lasting engagement.	Short-term or working memory has limited capacity and decays quickly, especially when users are interrupted. Interfaces should externalize important information, preserve context, and favor recognition over recall.	Social proof is the tendency to look to the actions and opinions of others when deciding how to behave, especially under uncertainty. Ratings, reviews, usage counts, and testimonials can reduce doubt when they are honest.
PSYCHOLOGY CONCEPT	PSYCHOLOGY CONCEPT	PSYCHOLOGY CONCEPT

Stress & Cognition <i>Stress narrows attention and impairs judgment.</i>	Sunk Cost Fallacy <i>People continue an endeavor because of already-invested time or effort.</i>	Trust & Credibility (Psychology) <i>How people decide what and whom to trust.</i>
Under stress, attention narrows, working memory shrinks, and errors rise. Designing for stressed users — with clarity, reassurance, and forgiveness — matters most in high-stakes contexts.	The sunk cost fallacy is the tendency to continue an activity because of previously invested resources — time, money, or effort — that cannot be recovered. In UX, invested progress can keep users engaged, which can help or harm depending on intent.	Trust forms from competence, reliability, transparency, and social signals. Understanding trust psychology guides honest design of credibility cues at moments of risk.
PSYCHOLOGY CONCEPT	PSYCHOLOGY CONCEPT	PSYCHOLOGY CONCEPT
Working Memory Model <i>A limited system that holds and manipulates information.</i>	Authority <i>People defer to credible experts and trusted sources.</i>	Commitment and Consistency <i>People strive to act consistently with prior commitments.</i>
The working memory model describes the limited mental workspace that temporarily holds and manipulates information during tasks. Overloading it causes errors, so interfaces should externalize information.	Authority is the tendency to follow guidance from credible, expert, or trusted sources. In UX, legitimate authority signals — certifications, expert endorsements, security badges, transparent credentials — can reduce uncertainty when they are truthful.	This Cialdini principle holds that once people make a small commitment, they tend to behave consistently with it. Small initial actions — a saved item, a completed first step — increase the likelihood of larger follow-through.
PSYCHOLOGY CONCEPT	PERSUASION TECHNIQUE	PERSUASION TECHNIQUE
Endowment Effect <i>People value things more once they feel ownership.</i>	Fogg Behavior Model <i>Behavior happens when motivation, ability, and a prompt converge.</i>	Fresh Start Effect <i>People are more motivated to act at temporal landmarks.</i>
The endowment effect is the tendency to value something more highly simply because one owns it. In UX, trials, personalization, and saved progress create a sense of ownership that increases perceived value — ethically when the value is real.	BJ Fogg's model states that a behavior occurs when three elements coincide: sufficient motivation, ability (ease), and a prompt (trigger). If a behavior does not happen, at least one element is missing. It guides ethical behavior design.	The fresh start effect describes heightened motivation to pursue goals after temporal landmarks — a new week, month, year, or milestone. Interfaces can align prompts with these moments to support genuine goal pursuit.
PERSUASION TECHNIQUE	PERSUASION TECHNIQUE	PERSUASION TECHNIQUE

Hook Model <i>Habits form through trigger, action, variable reward, and investment.</i> Nir Eyal's Hook Model describes how products build habits via a loop: a trigger, an action, a variable reward, and user investment that loads the next trigger. It is powerful and therefore carries strong ethical responsibility. PERSUASION TECHNIQUE	Liking <i>People are more easily persuaded by those they like and relate to.</i> The liking principle states that people are more influenced by brands and people they find likable, similar, or attractive. Warm tone, relatability, shared values, and genuine personality can strengthen connection when authentic. PERSUASION TECHNIQUE	Reciprocity <i>People feel obliged to give back after receiving something of value.</i> Reciprocity is Cialdini's principle that people tend to return favors. When a product offers genuine value first — a useful free tool, helpful content, a trial — users feel a natural inclination to reciprocate through engagement, loyalty, or purchase. PERSUASION TECHNIQUE
Scarcity <i>Perceived limited availability increases desirability.</i> Scarcity is the principle that opportunities seem more valuable when limited. Honest scarcity — genuinely low stock, real deadlines, limited seats — can aid decisions, but fabricated scarcity is a manipulative dark pattern. PERSUASION TECHNIQUE	Unity <i>People are influenced by those they share an identity with.</i> Unity, Cialdini's later principle, describes influence rooted in shared identity — 'we', not just 'similar to me'. Belonging to a common group or cause increases persuasion when the shared identity is real and respected. PERSUASION TECHNIQUE	Alignment <i>Consistent edges and axes create order.</i> Alignment arranges elements along shared edges or axes, creating visual order and connection. Strong alignment makes layouts feel intentional and easier to scan. VISUAL & LAYOUT DESIGN
Balance & Symmetry <i>Distribute visual weight for stability or tension.</i> Balance distributes visual weight across a composition. Symmetrical balance feels stable and formal; asymmetrical balance feels dynamic. Both can create pleasing, intentional layouts. VISUAL & LAYOUT DESIGN	Color Contrast <i>Sufficient contrast ensures content is readable by everyone.</i> Color contrast is the luminance difference between foreground and background. Adequate contrast is essential for readability and accessibility, ensuring text and controls are perceivable by people with low vision or in poor conditions. VISUAL & LAYOUT DESIGN	Color Theory in UI <i>Use color purposefully for meaning, mood, and hierarchy.</i> Color theory in UI covers how hue, saturation, and value create meaning, emotion, and hierarchy. A disciplined palette with clear semantic roles (primary, success, warning, danger) improves clarity and brand coherence. VISUAL & LAYOUT DESIGN

Contrast (Visual) <i>Difference draws attention and creates hierarchy.</i> Visual contrast — in size, color, weight, or shape — differentiates elements and directs attention. It is a primary tool for hierarchy and emphasis, distinct from but related to color contrast. VISUAL & LAYOUT DESIGN	Density & Comfortable Spacing <i>Match information density to the task.</i> Density describes how tightly packed an interface is. Data-heavy tools may need compact density, while consumer apps favor comfortable spacing. Offering density options can serve different needs. VISUAL & LAYOUT DESIGN	Design Tokens <i>Named variables encode design decisions for consistency and scale.</i> Design tokens are named, reusable variables that store design decisions — colors, spacing, typography, radii — so they can be applied consistently and updated centrally. They are the backbone of scalable, themeable design systems. VISUAL & LAYOUT DESIGN
Elevation & Shadow <i>Depth cues signal layering and interactivity.</i> Elevation uses shadow and layering to convey depth, separating surfaces and signaling interactivity or focus. A consistent elevation system clarifies hierarchy and state. VISUAL & LAYOUT DESIGN	Emphasis and Focal Point <i>Direct the eye to the single most important element.</i> Emphasis establishes a clear focal point that draws the eye first. Through contrast, scale, color, or isolation, a design signals the single most important element on a screen, supporting quick comprehension and action. VISUAL & LAYOUT DESIGN	Grid Systems <i>A shared structure aligns elements for order and consistency.</i> Grid systems provide an underlying structure of columns, rows, and gutters that align content consistently. Grids create rhythm, support responsive layouts, and make designs feel intentional and coherent across screens. VISUAL & LAYOUT DESIGN
Iconography <i>Icons communicate meaning quickly when clear and consistent.</i> Iconography is the use of visual symbols to represent actions, objects, or ideas. Effective icons are recognizable, consistent in style, and — for anything ambiguous — paired with labels so meaning is never guessed. VISUAL & LAYOUT DESIGN	Line Length & Readability <i>Optimal measure keeps text comfortable to read.</i> Line length (measure) strongly affects readability; overly long or short lines tire readers. Around 45–75 characters per line is a common comfortable range for body text. VISUAL & LAYOUT DESIGN	Motion and Microinteractions <i>Purposeful animation guides attention and gives feedback.</i> Motion design and microinteractions use animation to provide feedback, show relationships, guide attention, and add delight. Good motion is fast, purposeful, and respectful of reduced-motion preferences rather than decorative. VISUAL & LAYOUT DESIGN

Proximity & Grouping <i>Spacing communicates relationships between elements.</i> Grouping through proximity uses spacing to show which elements belong together, creating structure before labels are read. It is one of the most efficient layout tools. VISUAL & LAYOUT DESIGN	Repetition & Consistency <i>Repeating visual elements unifies a design.</i> Repetition of colors, shapes, type, and spacing creates unity and rhythm across a design, reinforcing consistency and making interfaces feel coherent and learnable. VISUAL & LAYOUT DESIGN	Responsive Design <i>Layouts adapt fluidly across screen sizes and devices.</i> Responsive design ensures interfaces adapt to different screen sizes, orientations, and input methods. Fluid grids, flexible media, and breakpoints let one design serve phones, tablets, and desktops well. VISUAL & LAYOUT DESIGN
Scale & Proportion <i>Relative size conveys importance and relationship.</i> Scale and proportion use relative size to signal importance and create harmony. Deliberate size relationships guide attention and make compositions feel considered. VISUAL & LAYOUT DESIGN	Skeuomorphism vs Flat Design <i>Style choices balance familiarity against simplicity.</i> Skeuomorphism mimics real-world materials to leverage familiarity, while flat and modern styles favor simplicity and clarity. Most interfaces today blend approaches, using subtle depth and shadow to signal interactivity without heavy realism. VISUAL & LAYOUT DESIGN	Typographic Scale <i>A consistent set of sizes creates readable, harmonious type.</i> A typographic scale is a limited, consistent set of font sizes and weights used to create clear hierarchy and rhythm. Using a defined ramp instead of arbitrary sizes keeps typography legible and visually harmonious. VISUAL & LAYOUT DESIGN
Visual Hierarchy <i>Arrange elements so importance is instantly clear.</i> Visual hierarchy is the arrangement of elements to signal order of importance through size, weight, color, contrast, spacing, and position. Strong hierarchy lets users grasp what matters first and navigate content effortlessly. VISUAL & LAYOUT DESIGN	Visual Rhythm <i>Repeating spacing and elements create flow.</i> Visual rhythm arises from repeated elements and consistent spacing, guiding the eye smoothly through a layout and creating a sense of order and pace. VISUAL & LAYOUT DESIGN	Whitespace <i>Empty space groups content and improves focus and calm.</i> Whitespace (negative space) is the empty area between and around elements. Far from wasted, it improves legibility, grouping, focus, and perceived elegance, and reduces cognitive load by giving content room to breathe. VISUAL & LAYOUT DESIGN

60-30-10 Rule <i>Balance a palette as 60% dominant, 30% secondary, 10% accent.</i>	Accessible Palette Generation <i>Build palettes that meet contrast across combinations.</i>	Brand Color & Accent Systems <i>Define primary brand and accent color roles.</i>
The 60-30-10 rule is a classic proportioning guideline: roughly 60% of a design uses a dominant (often neutral) color, 30% a secondary color, and 10% an accent for emphasis. It creates balanced, harmonious compositions with a clear focal color. COLOR	Accessible palette generation ensures color combinations meet contrast requirements for text and UI across states and modes. Tools and tokenized ramps help verify every pairing works for all users. COLOR	A brand color system defines the primary brand hue and supporting accents, mapping them to roles and ensuring they remain accessible and consistent across contexts and modes. COLOR
Color Blindness / Deficiency <i>Design so meaning survives without accurate color perception.</i>	Color Harmony (Color Wheel) <i>Schemes like complementary and analogous create pleasing palettes.</i>	Color Psychology <i>Colors carry cultural and emotional associations.</i>
Color vision deficiency affects a significant share of people, most commonly red-green. Designs must not rely on color alone to convey meaning; adding text, icons, patterns, and sufficient contrast ensures information is perceivable by everyone. COLOR	Color harmony uses relationships on the color wheel — complementary, analogous, triadic, split-complementary, monochromatic — to build palettes that feel intentional. Each scheme produces a different balance of contrast and cohesion. COLOR	Color psychology concerns the emotional and cultural associations colors evoke — trust, urgency, calm, energy — which vary across cultures and contexts. It should inform brand and UI choices thoughtfully, without overgeneralizing or ignoring accessibility. COLOR
Dark Mode Design <i>Design low-light themes that stay legible and comfortable.</i>	Gradients in UI <i>Smooth color transitions used purposefully.</i>	HSL / HSB Color Models <i>Intuitive models describing hue, saturation, and lightness.</i>
Dark mode provides a low-light color scheme that can reduce eye strain in dim environments and save power on some screens. It requires more than inverting colors: careful surface elevation, desaturated accents, and maintained contrast. COLOR	Gradients blend colors smoothly to add depth, emphasis, or brand character. Used purposefully they enhance hierarchy and mood; overused they harm legibility and contrast. COLOR	HSL (hue, saturation, lightness) and HSB/HSV (...brightness/value) describe color in ways humans reason about more easily than raw RGB. They make it intuitive to build tints and shades, adjust vibrancy, and generate systematic palettes. COLOR

Neutral & Gray Scales <i>A disciplined range of neutrals underpins UI.</i> A well-designed neutral scale provides the greys used for text, backgrounds, borders, and surfaces. Slight hue tinting and careful contrast steps make neutrals feel cohesive and accessible. COLOR	Semantic Color Roles <i>Map colors to meaning: primary, success, warning, danger.</i> Semantic color assigns colors to consistent meanings — primary, success, warning, danger, info, neutral — rather than to specific hues. This lets meaning stay stable across themes and modes while the underlying values can change. COLOR	Tints, Shades & Tones <i>Systematic light and dark variations of a hue.</i> Tints (adding white), shades (adding black), and tones (adding grey) create systematic variations of a base hue, forming tonal scales essential for UI states, elevation, and accessible palettes. COLOR
Accessibility: Alt Text & Media <i>Provide text alternatives for non-text content.</i> Text alternatives — alt text, captions, transcripts — make images, video, and audio accessible to people using assistive technology or in constrained contexts. They are a core accessibility requirement. GENERAL PRACTICE & PATTERN	Accessibility: Semantic HTML & ARIA <i>Use correct structure and roles for assistive technology.</i> Semantic HTML and, where needed, ARIA give assistive technologies the structure and roles they need to convey meaning. Using the right native elements first — and ARIA only to fill gaps — makes interfaces robust and accessible. GENERAL PRACTICE & PATTERN	Cognitive Walkthrough <i>Step through tasks as a novice to find issues.</i> A cognitive walkthrough evaluates a design by stepping through tasks from a new user's perspective, asking at each step whether they would know what to do and understand the result. GENERAL PRACTICE & PATTERN
Confirmation & Undo Patterns <i>Prevent and recover from consequential actions.</i> Balancing confirmation dialogs and undo determines how a product prevents and recovers from consequential actions. Undo is often better than a confirmation for reversible actions, reducing friction. GENERAL PRACTICE & PATTERN	Content Strategy <i>Plan content so it is useful, findable, and maintainable.</i> Content strategy is the planning, creation, governance, and maintenance of useful, usable content. It ensures content meets user needs and business goals, stays consistent in voice, and remains accurate and findable over time. GENERAL PRACTICE & PATTERN	Dark Patterns <i>Deceptive designs that trick users against their interests.</i> Dark patterns (deceptive patterns) are interface choices that manipulate users into actions they would not otherwise take — hidden costs, forced continuity, confirmshaming, sneaking items into carts. They harm users and trust and are increasingly regulated. GENERAL PRACTICE & PATTERN

Design Critique <i>Structured feedback that improves work collaboratively.</i> Design critique is a structured practice of giving and receiving feedback on design work against goals and principles, rather than personal taste. Good critique is specific, goal-oriented, and psychologically safe, strengthening both the work and the team. GENERAL PRACTICE & PATTERN	Design System <i>A single source of truth for reusable UI and standards.</i> A design system is a shared, documented collection of reusable components, patterns, tokens, and guidelines that keep a product consistent and efficient to build. It aligns design and engineering around one source of truth. GENERAL PRACTICE & PATTERN	Error Message Design <i>Write clear, kind, actionable error messages.</i> Good error messages state what happened in plain language, why, and how to fix it, placed near the problem and free of blame, turning failure into a path forward. GENERAL PRACTICE & PATTERN
Feedback & Error States <i>Communicate results, validation, and recovery clearly.</i> Beyond individual messages, a product needs a coherent approach to states: success, warning, error, and empty. Consistent, well-placed state design tells users what happened, what it means, and what to do next, reducing confusion and support load. GENERAL PRACTICE & PATTERN	Gestalt Principles (Overview) <i>The mind organizes visual elements into coherent wholes.</i> Gestalt principles describe how people naturally perceive and group visual elements into organized wholes rather than isolated parts. Proximity, similarity, closure, continuity, common region, and figure-ground together explain much of how layout communicates structure. GENERAL PRACTICE & PATTERN	Information Architecture <i>Organize and label content so people can find and understand it.</i> Information architecture (IA) is the practice of organizing, structuring, and labeling content so users can find information and complete tasks. It covers navigation, hierarchy, taxonomy, and labeling, and underpins findability and understanding. GENERAL PRACTICE & PATTERN
Microcopy / UX Writing <i>The small interface text that guides and reassures users.</i> Microcopy is the small but critical text in interfaces — labels, buttons, hints, errors, empty states — that guides users, sets tone, and prevents mistakes. Clear, concise, human wording can dramatically improve usability and trust. GENERAL PRACTICE & PATTERN	Microinteractions <i>Small, focused moments of interaction and feedback.</i> Microinteractions are the small, single-purpose moments — a toggle, a like, a validation — that, done well, make products feel responsive, human, and polished. GENERAL PRACTICE & PATTERN	Mobile-First Design <i>Design for the smallest screen first, then enhance upward.</i> Mobile-first design starts with the constraints of the smallest screen and progressively enhances for larger ones. Prioritizing core content and actions under tight constraints tends to produce clearer, more focused experiences everywhere. GENERAL PRACTICE & PATTERN

Onboarding Design <i>Help new users reach value quickly and confidently.</i>	Progressive Disclosure in Forms <i>Reveal form complexity only as needed.</i>	Prototyping <i>Interactive models used to test ideas before building.</i>
Onboarding is the experience that helps new users understand a product and reach their first success quickly. Effective onboarding is contextual and goal-oriented, favoring learning by doing over long tutorials, and reducing time to first value.	Applying progressive disclosure to forms shows only relevant fields, revealing more as answers require, reducing perceived length and cognitive load while keeping necessary complexity available.	Prototypes are interactive representations of a design, ranging from clickable low-fidelity flows to realistic high-fidelity simulations. They let teams test concepts, flows, and interactions with users before committing to development.
GENERAL PRACTICE & PATTERN	GENERAL PRACTICE & PATTERN	GENERAL PRACTICE & PATTERN
Responsive Images & Media <i>Serve appropriately sized, accessible media.</i>	Responsive vs Adaptive Design <i>Fluid layouts versus fixed layouts per breakpoint.</i>	Skeleton of a Screen (Layout Anatomy) <i>Standard regions like header, content, and navigation.</i>
Responsive media serves appropriately sized images and video for each device and connection, with accessible alternatives, improving performance, accessibility, and experience.	Responsive design uses fluid grids that flex continuously across sizes, while adaptive design serves distinct fixed layouts at specific breakpoints. Each has tradeoffs in flexibility, control, and effort, and they are sometimes combined.	Most screens share a recognizable anatomy — header, primary navigation, content area, and footer or action bar. Following familiar layout conventions leverages users' expectations so they can orient instantly and focus on their task.
GENERAL PRACTICE & PATTERN	GENERAL PRACTICE & PATTERN	GENERAL PRACTICE & PATTERN
Trust Signals & Credibility <i>Design cues that honestly build user trust.</i>	Wireframing <i>Low-fidelity layouts that focus on structure over visuals.</i>	A/B Testing <i>Compare variants with real users to learn what performs better.</i>
Trust signals — clear policies, security cues, real reviews, transparency, and professionalism — build credibility when honest. They reassure users at moments of risk or decision.	Wireframes are low-fidelity representations of a screen's structure, content, and hierarchy, deliberately stripped of visual styling. They let teams explore layout and flow quickly and cheaply before investing in high-fidelity design.	A/B testing compares two or more variants by randomly showing them to users and measuring outcomes. It provides causal evidence about which design performs better on a defined metric, complementing qualitative research.
GENERAL PRACTICE & PATTERN	GENERAL PRACTICE & PATTERN	ACCESSIBILITY

Accessibility (WCAG) <i>Design so people of all abilities can perceive and operate the UI.</i> Web accessibility, guided by WCAG, ensures products are usable by people with diverse abilities, including visual, motor, auditory, and cognitive differences. Its principles — perceivable, operable, understandable, robust — benefit all users. ACCESSIBILITY	Accessibility: Focus Management <i>Control and reveal focus predictably, especially in dynamic UI.</i> Focus management is the practice of directing keyboard focus intentionally, especially in dynamic interfaces. When dialogs open, content loads, or views change, focus should move logically and remain visible so keyboard and screen-reader users stay oriented. ACCESSIBILITY	Empathy Mapping <i>Capture what users say, think, do, and feel.</i> An empathy map is a collaborative tool that captures what a user says, thinks, does, and feels about a topic. It builds shared understanding of user attitudes and behaviors and surfaces needs and gaps early in a project. ACCESSIBILITY
Heuristic Evaluation <i>Experts inspect a UI against usability principles.</i> Heuristic evaluation is a method where evaluators judge an interface against recognized usability principles (heuristics) to find problems quickly and cheaply. It is a strong complement to user testing, especially early or with limited resources. ACCESSIBILITY	Inclusive Design <i>Design for the full range of human diversity.</i> Inclusive design considers the full diversity of people — ability, language, culture, age, context — and treats exclusion as a solvable design problem. Designing for edge cases and 'temporary' impairments improves the experience for everyone. ACCESSIBILITY	Information Scent <i>Cues that tell users whether a path leads to their goal.</i> Information scent refers to the cues — link labels, icons, snippets — that help users predict whether a path leads toward their goal. Strong scent keeps users confident they are heading the right way; weak scent causes hesitation and backtracking. ACCESSIBILITY
Jobs To Be Done <i>Users 'hire' products to make progress in a situation.</i> Jobs To Be Done (JTBD) frames products around the progress a user is trying to make in a given context, rather than around demographics or features. Understanding the underlying 'job' reveals real motivations and competing alternatives. ACCESSIBILITY	Keyboard Navigation <i>Everything must be operable without a mouse.</i> Keyboard navigation ensures all interactive elements can be reached and operated using only a keyboard. It is essential for many users with motor or visual disabilities and for power users, and requires logical focus order and visible focus states. ACCESSIBILITY	North Star Metric <i>A single guiding measure of the value users get.</i> A North Star Metric is one carefully chosen measure that captures the core value a product delivers to users. It aligns teams on outcomes rather than vanity numbers, but must be chosen carefully to avoid gaming. ACCESSIBILITY

Progressive Enhancement <i>Build a solid baseline, then layer richer experiences.</i>	Usability Metrics (SUS, Task Success) <i>Quantify usability with standardized measures.</i>	Delight & Personality <i>Small moments of joy that build affinity.</i>
Progressive enhancement is a strategy of building a functional baseline experience that works everywhere, then layering on enhancements for capable browsers and devices. It maximizes resilience, reach, and accessibility.	Usability metrics quantify how well users perform and how they feel, using measures like task success rate, time on task, error rate, and standardized questionnaires such as the System Usability Scale. They make usability comparable over time.	Delightful animation and microinteractions add personality and emotional connection through small, well-timed moments. Used sparingly, they build affinity; overused, they distract and slow users.
ACCESSIBILITY	ACCESSIBILITY	MOTION & INTERACTION
Easing & Timing <i>Natural motion uses acceleration curves and appropriate duration.</i>	Gestural Interaction <i>Touch gestures like swipe and pinch enable direct manipulation.</i>	Haptic Feedback <i>Tactile responses confirm actions and convey state.</i>
Easing curves and duration make motion feel natural. Ease-in-out mimics real-world acceleration, and durations are tuned so transitions feel responsive, neither instant nor sluggish, typically well under half a second for UI.	Gestural interactions — swipe, pinch, drag, long-press — enable direct, efficient manipulation on touch devices. Because gestures are often hidden, they need discoverability, feedback, and non-gesture alternatives.	Haptic feedback uses vibration and tactile responses to confirm actions, signal events, or convey state on capable devices. Used sparingly and meaningfully, it strengthens feedback; overused, it becomes annoying noise.
MOTION & INTERACTION	MOTION & INTERACTION	MOTION & INTERACTION
Loading Animation <i>Motion that reassures during waits.</i>	Reduced Motion & Accessibility <i>Respect users who need less or no motion.</i>	Scroll-Triggered Animation <i>Reveal or animate content as users scroll.</i>
Loading animations communicate that the system is working and can reduce perceived wait when purposeful. Determinate progress is preferable when duration is known; looping animation suits unknown waits.	Reduced-motion support honors users who experience discomfort or distraction from animation, by minimizing or removing non-essential motion when they request it. It is an accessibility requirement, not an option.	Scroll-triggered animation reveals or animates elements as they enter the viewport, guiding attention and adding polish. It must stay subtle, performant, and respect reduced-motion preferences.
MOTION & INTERACTION	MOTION & INTERACTION	MOTION & INTERACTION

State Transition Animation Animate between component states smoothly. Animating between states — expanded, selected, error — helps users perceive change and maintain context. Smooth, quick state transitions make interfaces feel responsive and understandable. MOTION & INTERACTION	Transitions & Continuity Animated transitions preserve context between states. Transitions animate between states or screens to preserve spatial and conceptual continuity, helping users understand what changed and where things went. Shared-element transitions are especially effective at maintaining context. MOTION & INTERACTION	Bar & Column Charts Compare quantities across categories. Bar and column charts compare values across categories using length, one of the most accurate visual encodings. They suit categorical comparison and should start axes at zero to avoid distortion. DATA VISUALIZATION
Chart Type Selection Match the chart to the data relationship you show. Choosing the right chart depends on the relationship being communicated: comparison, composition, distribution, trend, or correlation. Bar, line, scatter, and others each fit specific questions, and the wrong choice obscures insight. DATA VISUALIZATION	Color in Data Viz Use color to encode, group, and highlight data. Color in visualization encodes categories, sequences, or highlights. Effective use follows perceptual and accessibility principles: colorblind-safe palettes, meaningful sequences, and restraint. DATA VISUALIZATION	Dashboard Design Organize metrics for at-a-glance monitoring and drill-down. Dashboard design arranges key metrics and visualizations so users can monitor status at a glance and drill into detail as needed. Good dashboards prioritize the vital few metrics, group logically, and support the user's decisions. DATA VISUALIZATION
Data-Ink Ratio Maximize the ink devoted to actual data. Edward Tufte's data-ink ratio principle advises maximizing the proportion of a chart's ink that represents data, removing gridlines, borders, and decoration that don't add meaning. The result is clearer, more honest visuals. DATA VISUALIZATION	Line & Area Charts Show trends and change over time. Line charts show trends and change over a continuous dimension like time, while area charts add magnitude. They reveal patterns, seasonality, and direction clearly. DATA VISUALIZATION	Misleading Charts (Axis & Scale) Distorted scales and axes can lie with data. Charts can mislead through truncated axes, inconsistent scales, cherry-picked ranges, or dual axes. Ethical visualization uses honest baselines and scales so the visual impression matches the underlying data. DATA VISUALIZATION

Pie & Donut Charts <i>Show parts of a whole, sparingly.</i>	Preattentive Attributes <i>Some visual features are processed almost instantly.</i>	Scatter & Bubble Charts <i>Reveal relationships and correlations.</i>
Pie and donut charts show composition as parts of a whole but are hard to read with many slices or similar values. They work only for a few clearly different proportions.	Preattentive attributes — color, size, position, orientation, shape — are perceived almost instantly, before conscious attention. Using them deliberately lets a visualization highlight the key point at a glance.	Scatter plots reveal relationships and correlations between two variables; bubble charts add a third via size. They expose clusters, outliers, and trends in data.
DATA VISUALIZATION	DATA VISUALIZATION	DATA VISUALIZATION
Sparklines & Micro-Viz <i>Tiny inline charts show trends compactly.</i>	Storytelling with Data <i>Frame data to communicate a clear message.</i>	Tables vs Charts <i>Choose the right format for the data question.</i>
Sparklines are small, word-sized charts embedded inline to show trend or context without a full chart. They pack signal into compact spaces like tables and dashboards.	Data storytelling combines the right visuals, context, and narrative to communicate a clear insight and drive action, rather than just displaying numbers. It focuses attention on what matters.	Tables excel at precise lookup and comparison of exact values; charts excel at revealing patterns and trends. Choosing the right format depends on whether users need exact figures or the shape of data.
DATA VISUALIZATION	DATA VISUALIZATION	DATA VISUALIZATION
A/B & Multivariate Testing <i>Compare variants statistically to find what works.</i>	Accessibility User Testing <i>Test with people who use assistive technology.</i>	Analytics & Behavioral Data <i>Learn what users do from usage data.</i>
Beyond simple A/B, multivariate testing compares combinations of multiple changes to learn which elements and interactions drive outcomes. Both require clear hypotheses, adequate samples, and sound statistics.	Testing with disabled participants who use assistive technology reveals real accessibility barriers that automated tools and simulations miss. It is essential for building genuinely inclusive products.	Behavioral analytics reveal what users actually do — funnels, drop-off, feature usage, paths — at scale. They excel at what and where problems occur but must be paired with qualitative research to understand why.
RESEARCH TECHNIQUE	RESEARCH TECHNIQUE	RESEARCH TECHNIQUE

Concept Testing Validate an idea before investing in building it. RESEARCH TECHNIQUE	Diary Study Participants self-report experiences over time. RESEARCH TECHNIQUE	Eye Tracking Measure where and how people look. RESEARCH TECHNIQUE
Concept Testing Validate an idea before investing in building it. RESEARCH TECHNIQUE Concept testing evaluates the appeal, comprehension, and value of an idea before significant investment, using sketches, descriptions, or rough prototypes. It reduces the risk of building the wrong thing.	Diary Study Participants self-report experiences over time. RESEARCH TECHNIQUE A diary study has participants log their activities, thoughts, and feelings over days or weeks, capturing behavior in context and over time. It reveals longitudinal patterns that a single session cannot.	Eye Tracking Measure where and how people look. RESEARCH TECHNIQUE Eye tracking records where users look, how long, and in what order, revealing attention and scanning patterns. It provides objective gaze data but is resource-intensive and must be paired with why-focused methods.
First-Click Testing Measure where users first click for a task. RESEARCH TECHNIQUE	Five-Second Test Show a design briefly to gauge first impressions. RESEARCH TECHNIQUE	Guerrilla / Hallway Testing Quick, informal usability testing with anyone available. RESEARCH TECHNIQUE
First-Click Testing Measure where users first click for a task. RESEARCH TECHNIQUE First-click testing records where users click first when attempting a task. Because a correct first click strongly predicts task success, it is a fast way to evaluate navigation and layout decisions.	Five-Second Test Show a design briefly to gauge first impressions. RESEARCH TECHNIQUE A five-second test shows participants a design for about five seconds, then asks what they remember or understood. It measures whether key messages and hierarchy register on first glance.	Guerrilla / Hallway Testing Quick, informal usability testing with anyone available. RESEARCH TECHNIQUE Guerrilla testing gathers quick usability feedback from convenient participants in informal settings, trading rigor for speed and cost. It surfaces obvious issues fast, though findings are less representative.
Heatmaps & Session Replay Visualize aggregate clicks, scrolls, and sessions. RESEARCH TECHNIQUE	Surveys & Questionnaires Gather structured self-reported data at scale. RESEARCH TECHNIQUE	Tree Testing Test findability in a text-only navigation structure. RESEARCH TECHNIQUE
Heatmaps & Session Replay Visualize aggregate clicks, scrolls, and sessions. RESEARCH TECHNIQUE Heatmaps aggregate clicks, taps, and scroll depth, while session replays show individual journeys. Together they reveal where attention and friction occur, complementing analytics and usability testing.	Surveys & Questionnaires Gather structured self-reported data at scale. RESEARCH TECHNIQUE Surveys collect structured, self-reported data from many people, useful for quantifying attitudes, satisfaction, and segments. Careful question design avoids bias, and results should be triangulated with behavior.	Tree Testing Test findability in a text-only navigation structure. RESEARCH TECHNIQUE Tree testing evaluates how easily users can find items in a proposed navigation hierarchy, stripped of visual design. Participants locate items in a text tree, revealing whether the structure and labels support findability.

Autosave <i>Automatically persist user work without manual saving.</i>	Bottom Sheet <i>A panel that slides up from the bottom edge.</i>	Contextual Actions <i>Surface relevant actions near their target, when needed.</i>
Autosave continuously persists user input so work is not lost to crashes, timeouts, or navigation. It reduces anxiety and cognitive load, and should clearly communicate save status and support recovery.	A bottom sheet slides up from the bottom to present actions or content within reach on mobile. It can be a modal that demands focus or a persistent peeking panel, and works well for contextual actions and quick tasks.	Contextual actions present the operations relevant to an item right where and when they are needed — on hover, selection, or long-press — reducing clutter while keeping actions discoverable.
INTERACTION PATTERN	INTERACTION PATTERN	INTERACTION PATTERN
Drag and Drop <i>Direct manipulation by dragging elements to targets.</i>	Filtering & Sorting <i>Let users narrow and order large content sets.</i>	Infinite Scroll <i>Content loads continuously as the user scrolls.</i>
Drag and drop lets users move, reorder, or connect items by dragging them directly. It is intuitive for spatial tasks but needs strong affordances, feedback, valid drop targets, and always a non-drag alternative for accessibility.	Filtering and sorting help users manage large sets of items by narrowing to relevant subsets and ordering by meaningful criteria. Good implementations show active filters, allow easy clearing, and reflect results immediately.	Infinite scroll automatically loads more content as the user nears the bottom, creating a continuous stream. It suits exploratory, endless feeds but harms findability, footer access, and sense of position, so it is poor for goal-directed tasks.
INTERACTION PATTERN	INTERACTION PATTERN	INTERACTION PATTERN
Inline Editing <i>Edit content directly in place rather than a separate form.</i>	Master-Detail / Split View <i>A list pane alongside a detail pane.</i>	Onboarding Empty-to-Full <i>Guide users from an empty state to first meaningful content.</i>
Inline editing lets users modify content directly where it is displayed, reducing steps and context switching. It should clearly signal editability, provide save and cancel, and give feedback on success or failure.	The master-detail pattern shows a list (master) and the selected item's detail side by side, common on larger screens. It supports efficient browsing and editing, and typically collapses to a single view on small screens.	This pattern turns a first-run empty state into a guided path toward first value, combining explanation, sample content, and a clear primary action so new users quickly reach a populated, useful state.
INTERACTION PATTERN	INTERACTION PATTERN	INTERACTION PATTERN

Optimistic UI <i>Show the expected result immediately before confirmation.</i> Optimistic UI updates the interface immediately to reflect an expected successful result, before the server confirms, then reconciles if it fails. It makes interactions feel instant but must handle failure gracefully. INTERACTION PATTERN	Perceived Performance <i>How fast an interface feels, beyond actual speed.</i> Perceived performance is how fast an experience feels, which can differ from measured speed. Techniques like instant feedback, skeletons, optimistic updates, and progress cues make interfaces feel faster and reduce frustration. INTERACTION PATTERN	Pull-to-Refresh <i>Dragging down refreshes the current content.</i> Pull-to-refresh lets users drag down at the top of a list to reload content, a now-familiar mobile gesture. It should give clear feedback during the pull and refresh, and offer an alternative refresh where the gesture isn't discoverable. INTERACTION PATTERN
Skeleton / Progressive Loading <i>Reveal content progressively as it becomes available.</i> Progressive loading renders parts of a page as they become ready rather than blocking on everything, often using skeletons and lazy loading. It improves perceived performance and lets users start engaging sooner. INTERACTION PATTERN	Undo / Redo <i>Reverse and reapply actions to support safe exploration.</i> Undo and redo let users reverse and reapply actions, making interfaces forgiving and encouraging exploration. Robust undo reduces the need for confirmation dialogs and anxiety about mistakes. INTERACTION PATTERN	Wizard / Multi-Step Flow <i>Break a complex task into guided sequential steps.</i> A wizard guides users through a complex task in discrete, ordered steps, reducing overwhelm and error. It suits linear processes like setup or checkout, and should show progress, allow going back, and preserve entered data. INTERACTION PATTERN
Accessibility Personas <i>Represent users with diverse abilities.</i> Accessibility personas represent users with varied abilities and assistive technologies, keeping their needs visible throughout design so accessibility is considered from the start, not retrofitted. PROCESS & CRAFT	Accessibility Testing <i>Verify accessibility with tools and assistive technology.</i> Accessibility testing verifies that a product works for people with disabilities, combining automated tools, manual checks, keyboard and screen-reader testing, and testing with disabled users. Automated tools catch only a fraction of issues. PROCESS & CRAFT	Agile & Design Collaboration <i>Integrate design with iterative development.</i> Working design into agile development requires collaboration rhythms, dual-track discovery and delivery, and designers embedded with teams so design stays ahead of and aligned with build. PROCESS & CRAFT

Atomic Design Build UIs from atoms up to pages for consistency. Atomic design, by Brad Frost, structures interfaces as a hierarchy: atoms, molecules, organisms, templates, and pages. This compositional model promotes reuse, consistency, and a clear relationship between small parts and whole screens. PROCESS & CRAFT	Design Debt Accumulated inconsistency and shortcuts over time. Design debt is the accumulated cost of inconsistent, outdated, or shortcut design decisions that make products harder to use and maintain. Like technical debt, it must be tracked and paid down. PROCESS & CRAFT	Design Handoff Transfer design intent to engineering accurately. Design handoff is the process of transferring design intent, specs, assets, and behavior to engineering so the build matches the design. Good handoff includes tokens, states, edge cases, and close collaboration rather than a thrown-over-wall spec. PROCESS & CRAFT
Design Maturity Assess how deeply design is embedded in an organization. Design maturity models describe how integrated and influential design is within an organization, from absent or cosmetic to strategic and embedded. Understanding maturity helps set realistic goals and advocate for design investment. PROCESS & CRAFT	Design Ops Operationalize design work for scale and quality. Design operations (DesignOps) is the practice of orchestrating people, processes, and tools to amplify design's value and quality at scale. It covers workflows, tooling, governance, hiring, and rituals that let designers focus on design. PROCESS & CRAFT	Design Principles Definition Craft guiding statements for consistent decisions. Defining design principles creates concise, memorable statements that guide tradeoffs and decisions across a team, ensuring coherence when many people contribute to one product. PROCESS & CRAFT
Design QA Verify the build matches the design intent. Design QA checks that the implemented product matches design intent in spacing, states, behavior, and accessibility. It catches drift between design and code before release. PROCESS & CRAFT	Design Thinking A human-centered, iterative problem-solving framework. Design thinking is a human-centered framework with phases often described as empathize, define, ideate, prototype, and test. It emphasizes understanding users, framing the right problem, and iterating through experimentation. PROCESS & CRAFT	Design Tokens Tiers Layer tokens from primitive to semantic to component. Mature token systems layer tokens: primitive values, semantic roles referencing them, and component-level tokens. This tiering enables theming, consistency, and change at scale. PROCESS & CRAFT

Double Diamond <i>Diverge and converge through problem then solution.</i> The Double Diamond describes design as two phases of divergence and convergence: first exploring and defining the right problem, then exploring and delivering the right solution. It stresses understanding before building. PROCESS & CRAFT	Ethical Design <i>Design for user wellbeing, honesty, and societal good.</i> Ethical design considers the broader impact of design choices on users and society: honesty, wellbeing, inclusion, sustainability, and avoiding manipulation or harm. It asks not just whether something can be built, but whether it should. PROCESS & CRAFT	Heuristics vs Usability Testing <i>Know when to inspect versus observe real users.</i> Expert inspection methods (like heuristic evaluation) and empirical methods (like usability testing) are complementary. Inspection is fast and cheap for finding obvious issues; testing reveals real user behavior. Mature teams use both. PROCESS & CRAFT
Inclusive Research <i>Recruit and design research for diverse participants.</i> Inclusive research ensures studies recruit diverse participants — across ability, culture, age, and context — and use accessible methods, so findings represent the real range of users, not a narrow slice. PROCESS & CRAFT	Lean UX <i>Build-measure-learn with minimal waste.</i> Lean UX applies lean principles to design: form hypotheses, build the minimum needed to test them, measure, and learn, reducing waste and emphasizing outcomes over deliverables. PROCESS & CRAFT	Progressive Onboarding & Tooltips <i>Reveal guidance gradually at the moment of need.</i> Progressive onboarding introduces features gradually and contextually, using tooltips, coach marks, and just-in-time hints rather than front-loading everything. It respects the active user and reduces initial overwhelm. PROCESS & CRAFT
Research Repository <i>A shared, searchable store of research insights.</i> A research repository centralizes findings, recordings, and insights so knowledge is reusable and discoverable across teams, preventing repeated research and building institutional memory. PROCESS & CRAFT	Research Synthesis <i>Turn raw research into actionable insight.</i> Research synthesis transforms raw observations into themes, insights, and recommendations. It bridges data collection and design decisions, making research actionable rather than a pile of notes. PROCESS & CRAFT	Service Blueprint <i>Map frontstage and backstage of a service experience.</i> A service blueprint extends journey mapping by documenting not just the user's actions but the frontstage interactions, backstage processes, and supporting systems that deliver a service. It reveals operational gaps behind the experience. PROCESS & CRAFT

Component Specification <i>Define a component's states, behavior, and rules.</i> A component specification documents a UI component's anatomy, variants, states, behavior, accessibility, and usage rules. It ensures consistent, correct implementation across design and code. DELIVERABLE & ARTIFACT	Design Rationale / Documentation <i>Record the why behind design decisions.</i> Design rationale documents the reasoning behind decisions — the problem, options considered, tradeoffs, and why a choice was made. It preserves institutional knowledge and helps teams learn and revisit decisions. DELIVERABLE & ARTIFACT	Design Spec / Redline <i>Precise measurements and specs for implementation.</i> A design spec or redline provides exact measurements, spacing, colors, and assets needed to implement a design faithfully. Modern tools generate much of this automatically, but clear specs remain vital for fidelity. DELIVERABLE & ARTIFACT
Mood Board <i>Collect visual references to set direction.</i> A mood board gathers images, colors, type, and textures to explore and communicate a visual and emotional direction early in a project. It aligns stakeholders on aesthetic before detailed design. DELIVERABLE & ARTIFACT	Persona & Scenario <i>Archetypes plus the situations they act in.</i> Personas paired with scenarios describe representative users and the concrete situations in which they use a product. Scenarios ground personas in context, guiding design decisions around real goals and constraints. DELIVERABLE & ARTIFACT	Sitemap <i>A hierarchical map of a product's structure.</i> A sitemap visually represents the structure and hierarchy of a product's pages or screens. It clarifies information architecture, scope, and navigation before detailed design. DELIVERABLE & ARTIFACT
Style Guide / Brand Guidelines <i>Document visual and verbal brand standards.</i> A style guide documents the visual and verbal standards of a brand — logo use, color, typography, imagery, voice — so anyone can apply them consistently. It underpins coherent brand expression across touchpoints. DELIVERABLE & ARTIFACT	User Flow Diagram <i>Map the steps a user takes to complete a task.</i> A user flow diagram maps the paths and decisions a user takes to accomplish a task, showing screens, actions, and branches. It aligns teams on the experience and exposes gaps and unnecessary steps. DELIVERABLE & ARTIFACT	AI / LLM Product UX <i>Design usable, trustworthy AI-powered features.</i> Designing AI and LLM features requires setting expectations about capability and fallibility, making outputs reviewable and correctable, communicating uncertainty, providing control, and handling errors and hallucination transparently. SPECIALIZED DOMAIN

Accessibility for Cognitive Needs <i>Support users with cognitive and learning differences.</i>	Conversational UI <i>Design chat and dialogue-based interactions.</i>	Cross-Cultural Design <i>Adapt design to diverse cultural contexts and norms.</i>
Cognitive accessibility supports users with memory, attention, literacy, and processing differences through plain language, clear structure, reduced load, and forgiving interactions.	Conversational UI structures interaction as dialogue through chat or messaging. It must set expectations, handle misunderstanding gracefully, provide guidance and quick replies, and let users escape to other means when needed.	Cross-cultural design recognizes that color meaning, imagery, reading direction, iconography, and social norms vary across cultures. Designing respectfully for a global audience requires research and avoiding one-culture assumptions.
SPECIALIZED DOMAIN	SPECIALIZED DOMAIN	SPECIALIZED DOMAIN
E-commerce UX <i>Design shopping, cart, and checkout experiences.</i>	Email & Transactional Design <i>Design readable, actionable, accessible emails.</i>	Enterprise & B2B UX <i>Design complex tools for expert, repeated use.</i>
E-commerce UX covers product discovery, detail, cart, and checkout, optimizing for trust, clarity, and conversion while avoiding dark patterns. Friction and hidden costs are the main conversion killers.	Email design covers marketing and transactional messages that must render across many clients, stay accessible, communicate clearly, and drive a single clear action. Constraints like limited CSS support shape the craft.	Enterprise UX designs complex, data-dense tools for expert users who use them daily. It balances power and efficiency with learnability, and must fit real workflows and organizational contexts.
SPECIALIZED DOMAIN	SPECIALIZED DOMAIN	SPECIALIZED DOMAIN
Fintech & Financial UX <i>Design clear, trustworthy money experiences.</i>	Gamification <i>Apply game elements to motivate engagement ethically.</i>	Healthcare UX <i>Design for safety, clarity, and diverse users.</i>
Financial UX must make money-related tasks clear, safe, and trustworthy, with strong confirmation for risky actions, transparent fees, and careful handling of anxiety and error.	Gamification applies game-like elements — points, levels, streaks, challenges — to encourage engagement and behavior. Done ethically, it supports users' genuine goals; done poorly, it manipulates or creates hollow, addictive loops.	Healthcare UX prioritizes safety, clarity, and accessibility for diverse and often stressed users. Errors can have serious consequences, so clarity, confirmation, and inclusive design are critical.
SPECIALIZED DOMAIN	SPECIALIZED DOMAIN	SPECIALIZED DOMAIN

Internationalization & Localization <i>Design for languages, regions, and cultures.</i> Internationalization (i18n) prepares a product to support multiple languages and regions; localization (l10n) adapts it to a specific locale. This covers text expansion, date and number formats, RTL layouts, currencies, and cultural fit. SPECIALIZED DOMAIN	Kids & Family UX <i>Design safely and appropriately for children.</i> Designing for children requires age-appropriate content, strong safety and privacy protections, simple interactions, and awareness of developmental abilities and parental controls. SPECIALIZED DOMAIN	Multimodal Feedback <i>Combine visual, audio, and haptic feedback.</i> Multimodal feedback combines visual, auditory, and haptic channels to confirm actions and convey state, improving accessibility and clarity, especially when one channel is unavailable. SPECIALIZED DOMAIN
Notification Design <i>Deliver timely, relevant alerts without overwhelming users.</i> Notification design governs how and when a product interrupts users with alerts across push, in-app, email, and badges. Good notifications are timely, relevant, controllable, and respectful of attention and quiet hours. SPECIALIZED DOMAIN	Onboarding for Complex Products <i>Ramp users into powerful, complex tools.</i> Onboarding complex products requires progressive, contextual guidance that ramps users from first value to mastery over time, rather than front-loading every feature. SPECIALIZED DOMAIN	Privacy & Consent UX <i>Give users clear, honest control over their data.</i> Privacy UX ensures users understand and control how their data is collected and used, through clear consent, honest defaults, and accessible settings. It must avoid manipulative consent patterns and respect regulation. SPECIALIZED DOMAIN
Trust & Safety UX <i>Design to protect users from harm and abuse.</i> Trust and safety UX addresses protecting users from harm, abuse, fraud, and unsafe content through reporting, moderation cues, safety defaults, and transparent policies. It balances safety, freedom, and clarity. SPECIALIZED DOMAIN	Voice User Interface <i>Design speech-driven interactions without a screen.</i> Voice user interfaces (VUI) let people interact through speech, often without a screen. They require careful prompt design, confirmation of critical actions, graceful error recovery, and awareness of context and privacy. SPECIALIZED DOMAIN	AR / Spatial UX <i>Design interfaces anchored in the real world.</i> Augmented reality and spatial UX place digital content into the user's physical environment. Design must handle depth, occlusion, real-world context, comfort, safety, and input beyond the flat screen. EMERGING & PLATFORM

Cross-Platform Consistency <i>Balance platform conventions with brand consistency.</i> Cross-platform design balances following each platform's native conventions with maintaining a consistent brand and experience. Knowing when to conform to platform norms and when to stay brand-consistent is a core skill. EMERGING & PLATFORM	Offline-First Design <i>Design so core features work without connectivity.</i> Offline-first design assumes connectivity is unreliable and ensures core features work offline, syncing when possible. It requires clear status, conflict handling, and local persistence so users are never blocked. EMERGING & PLATFORM	Progressive Web Apps <i>Web apps with app-like capabilities.</i> Progressive Web Apps combine web reach with app-like capabilities: installability, offline support, push notifications, and fast performance. They blur the line between web and native while remaining broadly accessible. EMERGING & PLATFORM
Sustainable / Green UX <i>Design to reduce digital environmental impact.</i> Sustainable UX reduces the environmental footprint of digital products through efficient design, lighter pages, reduced data and energy use, and mindful engagement that respects users' time and attention. EMERGING & PLATFORM	TV & 10-Foot UI <i>Design for distance viewing and remote navigation.</i> Ten-foot UI designs for viewing from across a room and navigating with a remote or controller. It requires large text and targets, simple directional navigation, clear focus states, and forgiving input. EMERGING & PLATFORM	VR / Immersive UX <i>Design fully immersive virtual environments.</i> Virtual reality UX designs fully immersive environments where users are present inside the interface. Priorities include comfort and motion sickness, spatial orientation, natural input, and accessibility in 3D space. EMERGING & PLATFORM
	Wearable UX <i>Design for tiny screens and glanceable interactions.</i> Wearable UX targets very small screens and brief, glanceable interactions on watches and bands. It emphasizes minimal essential content, quick actions, notifications, and awareness of context and battery. EMERGING & PLATFORM	