the design of everyday things

by don norman · Language: EN

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Overview

Don Norman's "The Design of Everyday Things" is a seminal work that critiques the design of common objects, explaining why some are intuitive and delightful to use, while others are frustrating and confusing. Norman argues that when users struggle with a product, the fault almost always lies with poor design, not user incompetence. He introduces fundamental principles of human-centered design, emphasizing the importance of making products discoverable, understandable, and enjoyable.

The book delves into key concepts such as affordances (what an object's properties suggest it can do), signifiers (visual or auditory cues that communicate affordances), conceptual models (the user's mental understanding of how something works), and feedback (information about the result of an action). Norman uses numerous real-world examples, from doors and telephones to complex digital interfaces, to illustrate how these principles are either successfully applied or disastrously ignored. He advocates for a design process that prioritizes the needs, capabilities, and psychology of the user, rather than focusing solely on aesthetics or technological feasibility.

"The Design of Everyday Things" matters deeply because it empowers both designers and consumers to critically analyze and demand better products. It shifts the blame for user error from the individual to the design, fostering a more empathetic and effective approach to creating tools and systems. The book's insights are timeless and have profoundly influenced the fields of industrial design, user experience (UX) design, and human-computer interaction, making it essential reading for anyone interested in how we interact with the world around us.

Key Takeaways

- Good design makes objects discoverable and understandable without requiring instructions or prior knowledge.
- Utilize affordances and signifiers effectively to communicate how an object should be used and what actions are possible.
- Provide immediate and informative feedback to users after every action to confirm success or indicate issues.
- Develop clear and intuitive conceptual models that align with users' expectations of how a system works.

• Recognize that 'human error' is often a symptom of poor design, and strive to create error-tolerant systems.

• Embrace human-centered design principles, focusing on the user's needs and cognitive abilities throughout the design process.

• Employ constraints (physical, semantic, cultural, logical) to guide users towards correct actions and prevent mistakes.

• Remember that good design is often invisible because it seamlessly integrates into our lives, while bad design is always noticeable.

Chapter Summaries

The Psychopathology of Everyday Things

This foundational chapter introduces the core problem: why everyday objects are often frustrating and difficult to use. Norman argues that poor design leads to user blame, coining terms like "learned helplessness." Key concepts introduced include affordances (perceived and actual properties that determine how an object can be used), signifiers (signals that communicate affordances), conceptual models (mental models users form about how things work), feedback (information about the result of an action), and constraints (limitations on possible actions). Examples like poorly designed doors (Norman doors), telephones, and digital watches illustrate how a lack of discoverability and understanding leads to errors and user frustration, emphasizing the designer's responsibility.

The Psychology of Everyday Actions

This chapter delves into the cognitive science behind human interaction with objects, outlining the "seven stages of action" model: goal, plan, specify, perform (Gulf of Execution), then perceive, interpret, compare (Gulf of Evaluation). Norman explains how good design bridges the "Gulf of Execution" by making actions obvious and the "Gulf of Evaluation" by providing clear, immediate feedback. He discusses the importance of feedforward—information that helps predict the results of an action—and how a clear conceptual model facilitates understanding. The chapter emphasizes that effective design minimizes the cognitive effort required for users to form intentions, execute actions, and interpret outcomes, making interactions feel natural and intuitive.

Knowledge in the Head and in the World

Norman explores the two primary sources of knowledge humans use to interact with the world: knowledge "in the head" (memory, learned skills, mental models) and knowledge "in the world" (information directly available from the environment, like labels, instructions, or physical cues). He argues that good design often leverages knowledge in the world, reducing the burden on memory and making systems easier to learn and use, especially for infrequent tasks. Examples include car dashboards, calculators, and maps, illustrating how external information can guide

behavior and reduce errors. The chapter discusses the trade-offs between efficiency (for experts using knowledge in the head) and discoverability/learnability (for novices relying on knowledge in the world).

Knowing What to Do: Constraints, Discoverability, and Feedback

This chapter elaborates on how design guides user behavior through various types of constraints: physical (e.g., a plug only fitting one way), semantic (meaning of the situation, like a car's front and back), cultural (social conventions), and logical (reasoning based on the current state). Norman emphasizes that effective constraints, combined with clear signifiers and immediate feedback, make discoverability possible, allowing users to understand how to operate a device without prior instruction. The chapter reinforces the importance of mapping (the relationship between controls and their effects) and consistency, arguing that well-designed systems inherently communicate their functionality, preventing errors and fostering a sense of control.

Human Error? No, Bad Design

Norman challenges the common notion of "human error," asserting that most errors are a result of poor design rather than user incompetence. He distinguishes between slips (errors in execution, often due to inattention or automatic behavior, like pressing the wrong button) and mistakes (errors in planning or intention, due to incorrect mental models or misunderstanding). The chapter advocates for error-tolerant design, which anticipates and prevents errors, or makes them easily reversible. Concepts like forcing functions (design elements that prevent incorrect actions) and "undo" capabilities are discussed. Norman argues that designers have a moral responsibility to create systems that minimize the potential for error and support users in achieving their goals safely and efficiently.

Design Thinking

This chapter, significantly expanded in later editions, introduces the principles of human-centered design (HCD). Norman outlines the iterative process of HCD, which involves observation, idea generation, prototyping, and testing, emphasizing a deep understanding of user needs, behaviors, and context. He discusses the "double-diamond" model of design, moving from divergent exploration to convergent refinement. The chapter stresses the importance of rapid prototyping and user feedback throughout the design cycle to identify and correct flaws early. It argues that successful design is not just about aesthetics or functionality, but about creating products that are truly useful, usable, and desirable from the user's perspective.

Design in the World of Business

The final chapter addresses the practical challenges of implementing good design within the commercial world. Norman discusses the tension between designing for usability and designing for aesthetics, marketing, or cost-efficiency, often highlighting how business pressures can compromise user experience. He explores the role of emotion in design, introducing the

concepts of visceral (appearance), behavioral (usability), and reflective (self-image, culture) levels of design. The chapter concludes by looking at the future of design, advocating for designers to take a more holistic, systems-level approach, integrating user needs with business goals and technological possibilities to create truly valuable and sustainable products and services.

Themes

- User-Centered Design
- Usability and Discoverability
- Affordances and Signifiers
- Human Error vs. Bad Design
- Conceptual Models
- Feedback and Constraints

Frequently Asked Questions

What is the design of everyday things about?

It's about how good and bad design impacts our daily lives, explaining why some objects are easy to use and others are frustrating. Don Norman introduces key principles like affordances, signifiers, and feedback, advocating for human-centered design to create intuitive and effective products.

Is the design of everyday things worth reading?

Absolutely. It's a foundational text for anyone interested in design, usability, or understanding why some products work well and others don't. It provides practical insights applicable to designers, engineers, marketers, and even general consumers, making daily interactions less frustrating.

How does the design of everyday things end?

Spoiler: The book concludes by emphasizing the ongoing relevance of human-centered design principles in an increasingly complex technological world. It calls for designers to continue prioritizing user needs and understanding, even as technology evolves, to ensure future products are usable and enjoyable.

Who should read the design of everyday things?

Designers of all kinds (product, UX, industrial), engineers, product managers, marketers, and anyone interested in understanding human-computer interaction or why certain products are frustrating. It's also valuable for consumers who want to articulate what makes good design.

How long does it take to read the design of everyday things?

The book is approximately 250-300 pages long. At an average reading speed of 250 words per minute, it would likely take between 6 to 8 hours to read thoroughly, depending on your engagement with the concepts and examples.

Best Quotes

“Good design is actually a lot harder to notice than poor design, in part because good designs fit our needs so well that the design is invisible, serving us without drawing attention to itself.”

The Psychopathology of Everyday Things

This quote, from the introduction, highlights a core paradox: successful design often goes unnoticed because it seamlessly integrates with user needs. It emphasizes that the absence of frustration is a hallmark of excellent design, making it challenging to appreciate its underlying brilliance and the effort behind it.