

UCCS

Virtuous Interfaces:

Integrating Confucian Ethics with Usability Heuristics to Combat Dark Patterns in UX/UI Design

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Introduction

This paper explores how Confucian ethics, with its emphasis on virtues like benevolence, righteousness, and propriety, provides a moral framework to critique and refine UX/UI design. It examines how integrating these ethical principles with established usability heuristics can address and mitigate the dark patterns (the manipulation of user decisions through deceptive design techniques), fostering designs that enhance both user welfare and trust. By advocating for a design philosophy that aligns with Confucian virtues, this study aims to contribute to the development of more ethical and user-centered digital environments.

Background

In the field of user experience (UX) and user interface (UI) design, the ethical implications of design decisions significantly influence user perceptions and experiences. The concept of "dark patterns" refers to UI/UX strategies that intentionally mislead or manipulate users into making choices that are not in their best interests. These design tactics exploit human psychology and are commonly utilized to prioritize business goals—such as maximizing registrations, sales, or data collection—over user welfare, often without clear user consent (Gray, Kou, Battles, Hoggatt, & Toombs, 2018). These practices not only challenge ethical norms but also raise critical concerns about the long-term consequences on user trust and the integrity of digital interfaces.

The 10 Usability Heuristics for User Interface Design

The 10 Usability Heuristics for User Interface Design, developed by Jakob Nielsen, are foundational guidelines that offer a framework for creating more user-friendly interfaces. These heuristics include: 1) Visibility of System Status, ensuring users are always informed about what is happening; 2) Match Between System and the Real World, which stresses using familiar language and real-world conventions; 3) User Control and Freedom, providing easy exits and undo options; 4) Consistency and Standards, maintaining uniformity across similar elements; 5) Error Prevention, which aims to eliminate potential errors before they occur; 6) Recognition Rather than Recall, making information accessible without the need for memorization; 7) Flexibility and Efficiency of Use, offering customizable shortcuts; 8) Aesthetic and Minimalist Design, focusing on removing unnecessary elements; 9) Help Users Recognize, Diagnose, and Recover from Errors, guiding users through errors with clear messages and solutions; and 10) Help and Documentation, ensuring support is available when needed. Together, these heuristics form a robust approach to optimizing user experience by reducing user effort and enhancing usability (Nielsen, 2024).

Introduction to Confucian Ethics

In examining the implications of user interface (UI) and user experience (UX) design, especially through the lens of "dark patterns", it becomes essential to explore the ethical frameworks that might guide more humane and user-centered design philosophies. Confucian ethics, with its deep

roots in the cultural, social, and philosophical landscapes of East Asia, provides a compelling perspective for considering the morality of design decisions in technology and digital interfaces.

Core Principles of Confucian Ethics

Confucianism, founded on the teachings of Confucius, centers around the development of virtuous characteristics, which are believed to lead to social harmony and personal growth. These virtues include:

- **Goodness:** This virtue corresponds to **Ren**, which denotes benevolence or humaneness. In Confucian ethics, Ren is about exhibiting empathy, kindness, and humanity, particularly in the context of social relationships and familial duties (Dragga, 1999) (Snell, Wu, & Lei, 2022).
- **Righteousness:** This aligns with **Yi**, representing righteousness or appropriateness. Yi is the commitment to act justly and rightly, often requiring moral fortitude to prioritize ethical conduct over personal or commercial gain (Dragga, 1999) (Snell, Wu, & Lei, 2022).
- **Wisdom:** This virtue matches **Zhi**, which encompasses wisdom or knowledge management. In Confucian thought, Zhi involves a deep understanding and insight, traditionally fostered through education and reflective practice (Dragga, 1999) (Snell, Wu, & Lei, 2022).
- **Faithfulness:** This is described by **Xin**, which stands for trustworthiness or integrity. Xin emphasizes the importance of aligning one's words with their actions, ensuring reliability and maintaining moral integrity (Dragga, 1999) (Snell, Wu, & Lei, 2022).
- **Propriety:** Known as **Li**, this virtue encompasses propriety and harmonious differentiation. Li is fundamentally about observing the correct rites, rituals, and norms of behavior that have been established by tradition. It emphasizes the importance of acting appropriately in various social contexts, ensuring that one's behavior contributes to the harmony and stability of society (Snell, Wu, & Lei, 2022).
- **Reverence:** This can be associated with **Jing**, though it is not typically listed among the core "Junzi" virtues. Jing involves a deep respect and a serious commitment to fulfilling one's social and familial duties, reflecting a broader respect for societal structures and expectations (Chan, 2006) (Dragga, 1999).
- **Courage:** Identified as **Yong** in Confucian terminology, it involves bravery in the pursuit of moral and ethical goodness, particularly when guided by righteousness (Yi). Yong is about the courage to act in the face of personal risk when it is the right thing to do (Im, 2008) (Dragga, 1999).

Applying Confucian Ethics to Combat Dark Patterns

Dark patterns by design exploit psychological vulnerabilities, coercing users into decisions that may not be in their best interests, such as unwanted subscriptions or sharing more personal data

than intended. From a Confucian perspective, these practices would likely violate several core virtues, particularly Ren and Yi, as they compromise benevolence and righteousness for profit.

Types of Dark Patterns through a Confucian lens

- **Bait and Switch:** This pattern deceives the user into expecting one outcome but delivers another, undesirable one. From a Confucian perspective, this directly violates the virtues of **Yi** and **Xin**, as it undermines righteousness through deception and damages trustworthiness by betraying user expectations (Gray, Kou, Battles, Hoggatt, & Toombs, 2018) (Dragga, 1999).
- **Disguised Ads:** Ads are camouflaged as other elements like navigation buttons or additional content, misleading users into clicking them unintentionally. This dark pattern conflicts with **Xin** by compromising transparency and integrity, and **Yi**, as it manipulates the truth for profit (Gray, Kou, Battles, Hoggatt, & Toombs, 2018) (Dragga, 1999).
- **Forced Continuity:** After a free trial, charges commence without explicit consent or notification. This practice breaches **Xin** by failing to maintain honesty and clear communication with the user, and **Li**, as it disregards the proper norms of transactional transparency (Gray, Kou, Battles, Hoggatt, & Toombs, 2018) (Snell, Wu, & Lei, 2022) (Dragga, 1999).
- **Friend Spam:** The application requests access to contacts under a benign pretext but then spams all contacts, falsely implying the user endorsed the messages. This severely violates **Ren**, by exploiting personal relationships, and **Xin**, by misusing trust granted by friends and the user (Gray, Kou, Battles, Hoggatt, & Toombs, 2018) (Dragga, 1999).
- **Hidden Costs:** Charges revealed only at the final purchasing step undermine **Yi**, by manipulating the transaction's fairness, and **Xin**, as they break the trust that the price presented is honest and final (Gray, Kou, Battles, Hoggatt, & Toombs, 2018) (Dragga, 1999).
- **Misdirection:** This technique distracts the user from certain elements (like opting out checkboxes) to prevent them from making fully informed decisions. This goes against **Yi**, as it manipulates the user's ability to choose justly, and **Li**, by disrupting the expected norms of user interaction (Gray, Kou, Battles, Hoggatt, & Toombs, 2018) (Snell, Wu, & Lei, 2022) (Dragga, 1999).
- **Privacy Zuckering:** Users are tricked into sharing more information than they intend. This pattern violates **Xin**, which demands honesty in how user information is handled, and **Ren**, as it fails to respect user autonomy and privacy (Gray, Kou, Battles, Hoggatt, & Toombs, 2018) (Dragga, 1999).
- **Roach Motel:** Makes it easy to enter a commitment (like a subscription) but hard to exit. This affects **Yi**, by trapping users in unfair commitments, and **Xin**, by eroding trust through obstructive practices (Gray, Kou, Battles, Hoggatt, & Toombs, 2018) (Dragga, 1999).

Proposed Solutions

My proposed solution to address the ethical issues posed by dark patterns in UX/UI design is to apply Jakob Nielsen's 10 Usability Heuristics, adapted through the lens of Confucian ethics. This approach aims to create interfaces that not only enhance user experience but also conform to ethical standards rooted in benevolence, righteousness, propriety, wisdom, and integrity. By systematically addressing each dark pattern with a specific heuristic, we ensure that the solutions uphold the virtues essential in Confucian thought.

Bait and Switch

- **Visibility of System Status:** Clearly indicate any changes in system status as a result of user actions to prevent unexpected outcomes. For example, if clicking a button leads to a subscription rather than a one-time service, this should be clearly communicated before the action is taken (Nielsen, 2024).
- **Confucian Virtues:** Yi (Righteousness) and Xin (Trustworthiness) are showcased as the design adheres to moral righteousness by being truthful and maintains trust by keeping the user fully informed (Dragga, 1999).

Disguised Ads

- **Match Between the System and the Real World:** Use language and visuals that are familiar to the user and clearly distinguish advertisements from regular content, ensuring that ads are marked explicitly (Nielsen, 2024).
- **Confucian Virtues:** Li (Propriety) emphasizes using societal norms and expectations in communication, ensuring that ads do not mislead users by blending in deceitfully with content (Snell, Wu, & Lei, 2022).

Forced Continuity

- **Help Users Recognize, Diagnose, and Recover from Errors:** Provide clear error messages and confirmation dialogs before any action that could lead to automatic subscription renewals, ensuring users understand the consequences of their actions (Nielsen, 2024).
- **Confucian Virtues:** Zhi (Wisdom) and Xin (Trustworthiness) emphasize providing users with the knowledge to make informed decisions and maintaining trust through clear communication (Dragga, 1999).

Friend Spam

- **Consistency and Standards:** Follow platform and industry standards by ensuring that actions like accessing a user's contacts are consistently and explicitly approved by the user, and the outcomes of such actions are made clear (Nielsen, 2024).
- **Confucian Virtues:** Li (Propriety) ensures that actions are consistent with societal norms and standards, promoting a respectful and proper interaction environment (Snell, Wu, & Lei, 2022).

Hidden Costs

- **Error Prevention:** Eliminate error-prone conditions by clearly listing all costs upfront in the total price before the user finalizes a transaction to prevent surprise fees at the checkout (Nielsen, 2024).
- **Confucian Virtues:** Yi (Righteousness) and Xin (Trustworthiness) are both respected as the design prevents unethical surprises that could deceive users, maintaining fairness and honesty in transactions (Dragga, 1999).

Dark Pattern: Misdirection

- **Flexibility and Efficiency of Use:** Offer customizable interface options that allow users to choose how much guidance or promotional content they wish to see, thereby reducing unwanted distractions (Nielsen, 2024).
- **Confucian Virtues:** Ren (Humaneness) and Yi (Righteousness) are exemplified by providing flexibility and respecting user preferences, enhancing the overall usability and ethical approach of the system (Dragga, 1999).

Privacy Zuckering

- **Recognition Rather than Recall:** Make important privacy settings and implications visible and easily retrievable at the point of decision, minimizing the user's need to remember privacy details or dig through settings (Nielsen, 2024).
- **Confucian Virtues:** Zhi (Wisdom) supports designs that aid user understanding and decision-making, reducing the cognitive load and promoting wise choices in privacy management (Dragga, 1999).

Dark Pattern: Roach Motel

- **User Control and Freedom:** Provide users with straightforward mechanisms to undo or opt-out of choices, such as clear options to cancel subscriptions or close accounts (Nielsen, 2024).
- **Confucian Virtues:** Ren (Humaneness) supports the design that respects user autonomy and benevolence by allowing freedom and control over their interactions with the system (Dragga, 1999).

A Call to Action for Technical Communicators

The Confucian virtues of Yong (courage) and Jing (reverence) are relevant for technical communicators committed to ethical and user-centered design. Yong motivates technical communicators to challenge deceptive tactics and advocate for integrity, ensuring design choices prioritize user needs even under external business pressures (Dragga, 1999) (Im, 2008).

Jing embodies deep respect for the profession and its impact on users. It demands a careful, ethical approach to design, considering the moral implications of every user interaction. Practitioners observing Jing enhance user dignity and experience, giving each design decision the attention it merits (Dragga, 1999) (Chan, 2006).

By integrating the heuristic principles into their work, technical communicators can leverage these guidelines to further embed ethical considerations into everyday design practices. This integration ensures that designs not only meet usability standards but are also fundamentally aligned with values that respect and elevate the user experience. Principles such as Aesthetic and Minimalist Design ensure simplicity and clarity, while Flexibility and Efficiency of Use allow users to customize their experiences according to individual needs, embodying the Confucian commitment to human-centered design (Dragga, 1999) (Nielsen, 2024).

Together, Yong and Jing drive technical communicators to apply heuristic design principles with a strong moral commitment, promoting fairness and the well-being of users. These virtues foster an ethical framework that enhances user-centered practices, leading to a more equitable and user-friendly digital environment.

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