

Wu Wei (無為) and the Digital Interface: Daoist Principles in User Experience Design

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ABSTRACT

This paper will examine the significance of relating the principle of Daoist wu wei (wu2 wei2 無為) to the practice of user experience design. This is no mere pairing. Out of the Daodejing and the Zhuangzi I will draw two different uses of wu wei which have often been confused together: Laozi's wu wei of noncoercive governance and Zhuangzi's wu wei of non-struggling technique. Both of them speak to concerns that apply to interface design. The first part of the paper will set out the philosophical foundations of what I will refer to as "Daoist UX," a set of practices which depend on three correspondences. First, ziran (zi4ran2 自然) – natural spontaneity, the way things are as the standard for determining intuitive interfaces. Second, xu (xu1 虛), emptiness as a positive state as the underpinning of negative space and cognitive breathing room. And finally, the very principle of wu wei that good design is invisible design. I will argue that UX, having stumbled upon such principles empirically, lacks the philosophic sophistication to explain the reasoning behind them. The Daoists did so two thousand years ago.

Keywords: wu wei (無為), Daoism, UX design, ziran, xu, cross-cultural philosophy

1. INTRODUCTION.

In 2007, Steve Jobs unveiled the first iPhone by stating that "the best user interface is no interface at all," that is, the best way to make technology disappear is when all that's left to see is the individual engaging freely in her activities. This is a statement, albeit unwittingly, of a principle that had been formulated roughly twenty-five centuries ago by a wise man called Laozi: *wei wu wei, er wu bu wei* (wei2 wu2 wei2, er2 wu2 bu4 wei2 為無為, 而無不為), "Act through non-action, and nothing remains undone" (*Daodejing*, ch. 3).

The convergence is no accident. In both cases we find individuals struggling to address the same question: How can one create an environment be it a kingdom, a workshop, or a screen in which individuals flow effortlessly, engaging in skilled actions? The Daoist tradition had been working on

this problem for millennia by providing a rich vocabulary to articulate it. UX design has created an empirical toolbox. The two have never really talked to each other.

This paper intends to start this conversation. The core idea presented in the paper is that *wu wei*, once correctly understood and this implies differentiating between the version provided by Laozi and that offered by Zhuangzi is not a metaphor for good UX, but rather something more like a structural theory. The three concepts discussed below, *wu wei*, *ziran*, and *xu*, correspond to three demonstrated principles of interface design. However, more importantly, the Daoist tradition provides something missing in UX discourse a philosophical explanation for those principles.

This is the order of the paper. First, section 2 introduces the philosophical background of the discussion and carefully distinguishes Laozi from Zhuangzi. Then, section 3 gives a quick survey of the UX literature. Then, section 4 builds the framework of Daoist UX, discusses the comparative methodological approach adopted here, and presents the three correspondences, summarized in Table 1. Finally, section 5 addresses potential objections.

2. WU WEI AND ITS PHILOSOPHICAL CONSTELLATION

2.0 A Note on Internal Differentiation: Laozi and Zhuangzi

The Daoist tradition is not a single voice. The Daodejing, associated with Laozi (probably fourth–third century BCE), and the Zhuangzi, associated with Zhuangzi (c. 369–286 BCE), handle the concepts of *wu wei*, *ziran*, and *xu* in ways that overlap but do not coincide. Some earlier comparative work has treated them as interchangeable. That flattening weakens any framework built on them.

Laozi's *wu wei* is primarily political and cosmological. In the Daodejing, it describes a mode of governance: leadership so uncoercive that the governed barely register it as leadership at all. 'The best rulers are those of whom people barely know they exist' (Daodejing, ch. 17). The emphasis is on not interfering with the natural course of things social, political, cosmic rather than on what any particular person experiences while acting.

Zhuangzi's *wu wei* is different in kind. It is worked out not through maxims but through stories about craftsmen. What interests Zhuangzi is the phenomenology of mastery: what it feels like from the inside when skill has become so complete that action is no longer effortful. Slingerland's close reading identifies this as the most psychologically developed account of *wu wei* in the classical corpus (Slingerland 2004, 172–219).

For the purposes of this article, both registers matter but in different places. Laozi's version speaks to macro-level design how an information architecture or operating system can guide users without coercing them, the way a good road makes the right direction feel obvious. Zhuangzi's version speaks to micro-level phenomenology what users experience moment to moment when an interface has gotten out of their way entirely. The distinction is maintained throughout.

2.1 Wu Wei: Effortless Action and the Paradox of Non-Doing

The literal translation of 'wu wei' means 'non-action' or 'non-doing.' The Western interpretation of 'wu wei' meant the word was wrongly translated into the term 'quietism' that means withdrawing. This view is wrong since the notion of 'non-doing' is interpreted as a manifestation of the external process. Slingerland has shown in his book that the true nature of 'wu wei' is "the condition where there is perfect harmony in personal conduct such that actions arise without hesitation from one's natural inclinations... and yet at the same time are completely appropriate and effective given the demands of the circumstances" (Slingerland 2004, 7).

The Daodejing makes this through paradoxes. Water is the governing image: the most yielding substance in the world overcomes rock through constancy of flow, not force (Daodejing, ch. 78). Water does not push; it finds the available path and fills it. That is the Laozian model designing systems that achieve their ends by following the natural order rather than overriding it.

The Zhuangzian model is Cook Ding (Pao2 Ding1 庖丁). The cook carves an ox with a knife that, after years of work, is still sharp, because he has never cut against anything. 'I glide through such great joints or cavities as there may be, according to the natural constitution of the animal... I do not even touch the convolutions of muscle and tendon, still less attempt to cut through large bones' (Zhuangzi, ch. 3). Rachel Lau's analysis, drawing on Merleau-Ponty, describes this as 'the supersession of the cognitive'a

shift from deliberate engagement to what she calls a 'pre-objective' relationship with the task, where the right moves arise without being thought through (Lau 2021, 171).

Slingerland identifies a tension at the heart of this: wu wei must be achieved, which means it must be aimed at; but aiming at it seems to undermine the spontaneity that defines it (Slingerland 2004, 10–12). The Daoist solutions to this paradox indirect cultivation, patient attentiveness, removal of obstacles rather than imposition of will turn out to be a fairly precise description of how excellent UX design actually works, as developed in section 4.1.

On the relationship to flow: Csikszentmihalyi's theory (1990, 3–8) describes states of total absorption marked by effortless action and loss of self-consciousness: 'In the flow state, action follows upon action according to an internal logic that seems to need no conscious intervention by the actor' (Csikszentmihalyi 1990, 53–54). Barrett's comparative study finds genuine overlap between flow and wu wei, but also a crucial asymmetry: Csikszentmihalyi describes a psychological state without metaphysical commitments, while Zhuangzi's wu wei is embedded in a cosmology of the Dao that gives it moral and ontological weight (Barrett 2011, 697–702). The asymmetry is useful rather than problematic it points toward what each tradition can offer the other.

2.2 *Ziran: Spontaneous Naturalness as Criterion*

The terms *ziran* (zi4ran2 自然) have been interpreted both as “nature” and “naturalness,” but there is a lot more to be said for its etymological meaning. *Zi* (zi4 自) means “self” or “from itself,” while *ran* (ran2 然) means “so” or “thus.” In that case, *ziran* might mean “so-of-itself” an occurrence that takes place due to the object's internal mechanisms rather than any kind of external influence on it. It is surely not just a matter of terminological definition.

On the contrary, one could even say that much debate has been going on in scholarly circles about the universality of the notion of *ziran*. Those scholars who deny such universality are Ames and Hall, stating that *ziran* cannot be described either as a universal “nature” in the Western sense, or as a quality itself, but rather the expression of the former quality in a particular situation a “so-of-itself-ness” of the object.

Ziran is thus represented as the ideal of the greatest possible way of being in Daodejing: “The Dao follows what is naturally so” (Daodejing, ch. 25). Instead of governing or commanding anything, the Dao acts accordingly to its own tendencies. In the Zhuangzi, *ziran* appears to be related to spontaneous responsiveness: the sage's action is spontaneous and natural, rather than premeditated. According to Alexa Nord-Bronzyk, in Zhuangzi's philosophy, *ziran* is not a skill which could be gained intentionally. It is an “organic happening,” that is a quality which can emerge only when all barriers are stripped away (Nord-Bronzyk 2021, 43–47).

As a design implication, the interpretation by Ames and Hall implies that the intuitiveness of an interface cannot be defined via its universal characteristics. Intuitiveness relies on the relation between the interface and its users and on the conditions of using it. Something that is considered natural for some users in a specific cultural environment can appear not so natural for others and this problem becomes quite crucial in the proposed approach discussed in section 5.2 below.

2.3 *Xu: The Productivity of Emptiness*

Xu (虛): Concept three is emptiness, vacuity or hollowness. As seen in Chapter 11 of Daodejing:

Thirty spokes make one wheel. It is precisely the hole within the wheel which makes it usable. In forming a vessel of clay, it is the space within the vessel which makes it usable. Cut-out openings in walls make them usable precisely because of the emptiness created through openings. Hence, it is the tangible which is used for its utility whereas intangible which is used for being. (Daodejing, ch. 11)

The intriguing thing about this concept is that the usability of the wheel does not come from the wood itself but from the hole cut into it. Usability of the clay comes from the hollowness within the utensil.

Li Zehou's study of Chinese aesthetics traces how this ran through painting theory, calligraphy, poetry, and architecture from at least the Tang dynasty (618–907 CE). The unpainted space on a landscape scroll is not background; it is active it breathes, resonates, and makes the brushwork around it possible (Li Zehou 2009, 87–93). This tradition of cultivated emptiness, rooted in Daoist *xu*, was being theorized as an aesthetic principle most systematically in Huang Yue's (1750–1841) Chunshu Weitan centuries

before the Bauhaus (founded 1919) articulated the Western equivalent. The historical priority is real, though neither tradition simply reduces to the other.

3. THE UX DISCOURSE

3.1 *The Emergence of UX as a Discipline*

The term "UX design" was introduced in the 1990s; however, most of the underlying ideas have been developed much earlier. For instance, such notions as affordance, feedback, and mapping were introduced by Don Norman in his book "The Design of Everyday Things" (1988). The good design, according to Norman, is to help users see what actions they can perform and provide them with the feedback; moreover, the good design should correspond to how the users perceive the world (Norman 1988, 12-24). What is more, Norman refers to the good design as to the invisible one because it helps users focus on the actions they need to perform.

Further, Hassenzahl and Tractinsky claim that the concept of UX design should include not only usability but also the hedonic dimension and motivation beyond the goal (Hassenzahl and Tractinsky 2006, 91-92). Nonetheless, one of the crucial questions of this field remained unanswered, why are some interfaces pleasurable while others are not?

3.2 *Flow, Friction, and the Invisible Interface*

The most accurate psychological description of wu wei in modern times is the theory of flow described by Csikszentmihalyi (1990). Being totally absorbed into some challenging activity when each next step is performed "according to an internal logic which seems to have no need for conscious intervention by the actor" (Csikszentmihalyi 1990, 53-54) is not only pleasant but presents a certain mode of existence. Such total engagement has to be adjusted to the level of challenge as too high makes one nervous whereas too low induces boredom.

The analog described by Barrett shows both similarities and differences between flow and wu wei: while the first one is a psychological notion, the second is connected with the metaphysics of Daoism. Although the first one provides us with an empirical base, the latter gives us deeper understanding of its meaning (Barrett 2011, 697-702).

In the field of design Skulmowski and Rey conduct a review of the literature on cognitive load and prove that 'extraneous' cognitive load, i.e., the load induced by interface and not by the task itself, always decreases performance and user satisfaction (Skulmowski and Rey 2021, 178-183). This phenomenon is formalized by usability heuristics described by Nielsen. The conclusion we make is consistent with xu: transparency creates productive emptiness.

3.3 *Negative Space and Visual Breathing Room*

In the West, the Bauhaus codified the concept of negative space as an active principle of composition. In China, its use was already being discussed explicitly under the label of kongbai (kong1bai2 空白) some centuries before that time: Huang Yue's Chunshu Weitan (eighteenth century) explicitly references Daoist xu to justify his idea of using the empty space actively (Li Zehou 2009, 89). The convergence with Bauhaus ideas is there; the priority belongs to Chinese culture by several centuries, even though the philosophy behind it differs.

This is already acknowledged in some recent research in HCI. Nie et al. (2025) appeal to the Chinese theory of negative space, along with Japanese ma (間), as a philosophical background for reconsidering creative emptiness in interface design. The concept of ma as a productive pause or gap in time and space originates in the Chinese aesthetic theory that references Daoist xu. It is starting to be recognized in the context of interaction design.

4. DAOIST UX: THREE STRUCTURAL HOMOLOGIES

4.0 *Methodological Grounding: Structural Homology and Cross-Cultural Philosophy*

The framework operates from a distinction which must be clarified. An analogy is that A is similar to B. A structural homology is that both A and B represent a deeper form C. The idea is not that wu wei is similar to frictionless UX; rather, it is that both A and B are reactions to a common problem of how to do things effectively in accord with nature.

Graham's study of comparative philosophy claims that comparison involves the discovery of structural homologies in the way problems arise and their logical entailments rather than mere similarities in

vocabulary terms that can be deceiving (Graham 1989, 1–15). Ames and Hall's approach to comparative philosophy claims that true comparison involves having one tradition test assumptions in another (Ames and Hall 1987, 11–26). This is the approach taken here. The framework is not imposed on UX design, but put into dialogue with it. Table 1 summarizes the three correspondences before each is examined in detail.

Table 1. Structural Homologies between Daoist Philosophy and UX Design Principles

Daoist Concept	Classical Meaning	UX Principle	Design Implication
Wu Wei (wu2 wei2 无为)	Effortless, non-coercive action aligned with the natural order; the paradox of achieving through not forcing. Laozi stresses political non-interference; Zhuangzi foregrounds skilled spontaneity in craft.	Frictionless interaction; transparent interface; invisible UX	Design that disappears from consciousness; remove barriers between user and goal; iterate through observation, not imposition
Ziran (zi4ran2 自然)	Spontaneous naturalness; things being self-so by their own inner logic without external compulsion. Relational and contextual, not a fixed universal essence.	Intuitiveness; mental model alignment; natural affordances	Discover the natural structure of user activity; design with the grain of human cognition and embodiment for this population, in this context
Xu (xu1 虚)	Productive emptiness; the void that makes things useful (the empty hub, the hollow vessel, the open door). Absence does not negate it constitutes function.	Negative space; cognitive breathing room; minimalism; information hierarchy	Treat white space as an active design element; what is excluded is as important as what is included

Source: Author's synthesis. Pinyin tones added at first occurrence of each term.

4.1 First Homology: Wu Wei as the Standard of Excellent Interaction

The first analogy ties wu wei to the UX principle of seamless, clear communication. In both cases, the greatest success is an act of disappearing. The Laozian sage rules in such a way that the people don't even realize that they're being ruled. The Zhuangzian carpenter is so efficient in his work that he never meets any resistance from his knife.

The two registers illuminate different levels of design. Laozi's wu wei speaks to information environments at the macro level a navigation structure, an operating system that makes the right path feel like the obvious path without the user feeling directed. Zhuangzi's wu wei speaks to what happens moment to moment: the user's hands moving without deliberation, the interface appearing to anticipate the next move.

The paradox of wu wei is the key methodological point. You cannot directly aim at spontaneity; that defeats it. The Daoist solution cultivating conditions indirectly, attending to natural structure, removing obstacles rather than imposing will is structurally similar to what good UX research actually does. The researcher watching where users hesitate, iterating designs in response to observed movement, is doing something like what Cook Ding did over years of studying the ox: learning the grain of the thing and designing along it rather than against it.

4.2 Second Homology: Ziran as the Criterion of Intuitive Design

Intuitiveness implies the use of the interface without training, with the proper response being obvious even before thinking about it. This corresponds to the very meaning of ziran on the level of interactions being self-so by the logic of the system without any influence of the outside.

There is one element of the Ames-Hall interpretation of ziran that needs to be mentioned. Namely, it complicates the picture and adds some nuance that should not be simplified too easily. The relational nature of ziran implies that the concept does not have any meaning without taking into consideration the context. Therefore, the ziran of an interface is always the ziran of an interaction for a certain population and in a certain context, which corresponds to the way the most effective UX practice works. Claims of intuitiveness are always based on user research done for a particular population, but never on universal laws of cognition.

There is another dimension that should not be ignored here. The idea of designing 'natural' interfaces carries within itself the self-critique, since all the 'natural' assumptions are culturally determined and do not come out of nowhere (Norman 1988, 221).

4.3 Third Homology: Xu as the Principle of Generative Emptiness

The empty space on a webpage, like the empty center of a wheel, is not a design failure. It is doing active work. That is the correspondence between xu and negative space.

At the visual level, xu suggests that empty space should be planned rather than defaulted into. At the information architecture level, a sparse menu that makes the right option obvious will generally outperform a comprehensive one that requires search. At the feature level, removal can improve an experience as much as addition the question 'what should this product not do?' matters as much as 'what should it do?'

The Daodejing's formulation 'what is absent makes it actual' (wu2 zhi1 yi3 wei2 yong4 無以用之 ch. 11) translates directly into a design maxim: an interface is constituted as much by what it excludes as by what it includes. The historical lineage from Daoist xu through Chinese ink painting theory to contemporary design minimalism suggests this is not coincidence but a structural insight about emptiness and function that multiple traditions have arrived at from different directions.

5. OBJECTIONS AND LIMITATIONS

5.1 The Risk of Instrumentalization

The most serious objection to this kind of work is that it extracts Daoist philosophy from its home cosmological, ethical, soteriological and redeploys it as a toolkit. The history of Western appropriations of 'Eastern wisdom' for therapeutic, commercial, or professional purposes does not make for encouraging reading.

This objection cannot be deflected; it can only be addressed by how the framework is built. Three things distinguish the approach here from mere borrowing. First, the Daoist framework is not simply mapped onto existing UX categories it is used to challenge them. The relational reading of ziran reveals that UX's claims to design for 'natural' interaction conceal culturally specific assumptions the field has not examined. That is not what borrowing looks like. Second, the cosmological depth of the Daoist concepts is preserved rather than stripped away. Wu wei is not a design tip about reducing friction; it is a concept embedded in an account of what it means to act in alignment with the fundamental ordering principle of reality. Third, and following Flavel and colleagues, the engagement is bidirectional: HCI research's cross-cultural findings can in turn complicate Daoist philosophy's universalist tendencies (Flavel et al. 2019, 42–45).

5.2 Cultural Universality and the Problem of 'Intuitive' Design

A related objection: the framework seems to presuppose that there is a natural structure of human-computer interaction that holds across cultures. There isn't, or at least the evidence cuts against it. What counts as intuitive varies with prior experience, cognitive habits, and social norms around technology use. Marcus and Gould's work on cultural dimensions in UI design documents this variation in some detail (Marcus and Gould 2000).

The objection has genuine force. The Ames-Hall reading of ziran as relational and contextual rather than as a fixed universal suggests that the framework does not actually commit to a single natural structure of interaction. It commits to the principle that good design discovers and amplifies whatever

the natural structure is for a given population in a given context. The aspiration is the same; the content of 'natural' varies.

This reformulation is also empirically productive. It suggests that the Daoist concept of ziran should be operationalized differently in different cultural settings, and that cross-cultural comparative UX research asking what constitutes the ziran of interaction for different user populations is a research program the framework opens rather than forecloses.

5.3 Historical and Methodological Distance

Thirdly, there is a problem of category: the Daodejing was written in an age of agriculture and courts. The skillful figures in Zhuangzi are carpenters and cooks not designers of interfaces. In terms of application to the issue of digital technology, this may appear to be a basic category error.

To this criticism, it can be replied by appealing to Graham's comparative method: the philosophical issues dealt with in Daoist thought, namely, how one accomplishes effective action in conformity with natural order; how one makes things what they should be; what productive absence is and how it is involved in making things useful, are universal enough to move between such drastically dissimilar historical and technical environments. Comparative philosophy requires translation in terms of the issues and the logic of these issues, not vocabulary.

There is, however, another honest limitation to point out: the Dao as the supreme ordering power in the universe has no equivalent in user experience philosophy. The 'natural structure' of the user experience is not, in terms of the discourse of HCI specialists, determined by a cosmological principle; it is contingent and historically specific.

6. CONCLUSION:

Three Daoist concepts wu wei, ziran, and xu turn out to illuminate what makes a digital interface excellent. Not as metaphors. As structural accounts.

Wu wei, in its Laozian register, describes information environments that guide without coercing; in its Zhuangzian register, it describes the phenomenology of absorbed, effortless interaction. Ziran, read through Ames and Hall's relational interpretation, provides a criterion of intuitive design that is sensitive to cultural context which, as it happens, makes it more useful for design practice than a universalist account would be. Xu provides both the philosophical grounding for negative space and a design maxim: an interface is constituted as much by what it excludes as by what it includes.

The framework is not a settled account. It is a productive opening and the openings run in both directions. Daoist philosophy gives UX discourse a philosophical depth it has generally lacked: an account of why frictionless interaction and negative space matter, not merely that they do. And UX research, particularly its cross-cultural complexity, can in turn complicate Daoist philosophy's universalist assumptions in ways that should be welcome.

Cook Ding's knife is still sharp after years of carving because it has never cut against the grain. That is what the best design aspires to: not something the user pushes through, but something that moves with her, along the natural structure of what she is trying to do.

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