Developing a Code of Ethics for UX Design: What We Can Learn from the Field of Architecture

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Analysts predict that by 2020 there will be as many as 200,000 billion connected digital devices in the world. We are rapidly saturating every aspect of our lives with digital technology, from huge invisible urban infrastructures that micro-manage traffic flow to trackable pills that are "safe" to ingest. What is our responsibility as User Experience (UX) professionals to recognize our influence on the quality of everyday life and actively wage goodness? I propose that along with all the creativity and satisfaction of being a UX designer, there is great responsibility falling into our hands. The pressure is upon us to develop more detailed and timely ethical standards by which we practice our profession.

Recent hot-button issues of addiction, social isolation, and fake news have brought attention to the potential to weaponize social media, and for the need to have structures and policies that actively manage such use. It has sparked a wave of interest in ethical practices from extreme insiders, like tech CEOs, to those outside the industry observing its effects, like psychologists and sociologists. As designers, our concern should go beyond mental health as it relates to malicious use of social media, to human health and well-being in a general sense.

From my research, I can attest that it's a complex problem. What falls under the purview of corporate policy versus coding versus UX design can be fuzzy. As designers, we can only do so much if the rest of our company is not on board. But, I believe that we can begin to craft some design ethics. How? Luckily, a more mature design profession, architecture, has already been addressing human well-being in the built environment from a perspective appropriate for them. Can we learn from it?

The architecture profession has, in a sense, taken the idea of human-centered design from the usability design playbook, but extended it to a professional initiative, well beyond our own current application. What they call "human-first" design and the "well building" initiative seeks to optimize human wellness in the design of buildings. This is in addition to the LEED eco-friendly building certifications that benefit both human occupants and the larger environment. Using these initiatives as models may help UX professionals craft their own initiatives for an ethical design approach.

How Architecture Does It

First, a bit of background. Architecture is a licensed profession, like law and medicine, and for many years it has had a code of professional ethics related to upholding one's license by, among other things, adhering to zoning and building codes that, if not adhered to, can cause legal jeopardy for their clients. Many zoning and building codes benefit users of the buildings through accessibility- and safety-related requirements, such as proper access for wheelchairs and appropriate railing height to prevent falls from high places.

In the early 1990s, in the interest of improving sustainability practices in the profession, and with the help of the National Resources Defense Council, the U.S. Green Building Council

(USGBC) initiated LEED, or Leadership in Energy and Environmental Design. LEED provides a framework to create healthy and highly efficient green buildings.

LEED certification has become a globally recognized standard of sustainability achievement. It has grown from one standard for new construction to a broad system of interrelated standards applicable from the design and construction to the maintenance and operation of buildings. LEED has dramatically shifted the practice of architecture to be more environmentally responsible. According to their [website](#), "2.2 million + square feet is LEED certified every day with more than 92,000 projects using LEED."

The WELL Building Standard

More directly related to the profession of UX design, in October 2014, the International WELL Building Institute (IWBI) created the WELL Building Standard (WELL). With six years of prior research and planning, IWBI established that the goal of WELL is to transform buildings and communities in ways that help people thrive. If you are a UX professional used to focusing on users, you get just how excellent this initiative is.

The WELL standard is considered "cutting-edge" and, according to their [website](#), is "the first to be focused exclusively on the ways that buildings, and everything in them, can improve our comfort, drive better choices, and generally enhance, not compromise, our health and wellness." In addition to the WELL Building Standard, the WELL Community Standard Pilot extends beyond individual buildings to advancing well-being through the design of whole neighborhoods.

WELL, like LEED, offers project certification and a credential to professionals willing to learn the requirements to provide expertise during a design and build process to increase the likelihood of successful project certification. LEED and WELL work together as sister standards, the first addressing the health of natural ecosystems, the second addressing human health. There is some overlap between the standards, but this is not a deterrent to the possible goodness that they propagate.

The WELL standard represents a significant amount of invested effort. It was developed by assimilating scientific and medical research with behavioral factors, health outcomes, and demographic risk factors that affect health. These findings were integrated with premier practices in building design and management. WELL also acknowledges and references pre-existing standards and best practice guidelines set by governmental and professional organizations. [WELL Version 2](#) is the currently active iteration and prioritizes 11 key feature areas in its standard (see Figure 1):

1. Air
2. Water
3. Nourishment
4. Light
5. Movement
6. Thermal Comfort
7. Sound
8. Materials
9. Mind
10. Community
11. Innovations

WELL Building Standard — Features

AIR	Quality standards including filtration, cleaning protocols, microbe control, material safety
WATER	Testing and monitoring to control public water additives and system contaminants
NOURISHMENT	Promotion of healthy food options, nutrition labeling, safe food preparation and sourcing
LIGHT	Glare free and circadian lighting design, effects of surfaces and contrast, light quality, daylighting
MOVEMENT	Active design, enhanced ergonomics, activity incentives, and structured fitness programs
THERMAL COMFORT	Maximum thermal comfort by meeting individual thermal preferences
SOUND	Identify and mitigate parameters of acoustical comfort
MATERIALS	Reduce human exposure to hazardous building materials known to be toxic
MIND	Organizational policies and transparency, biophilic design, flexible and adaptable spaces
COMMUNITY	Establish inclusive, integrated communities through social equity and civic engagement
INNOVATIONS	Find new ways to go beyond the standard to create healthy environments

Figure 1. The feature areas of the WELL ethical standard represent physical attributes.

Each of these features is articulated with sub-features. Air, for example, is subdivided into 14 sub-features, including air filtration, microbe mold control, and cleaning protocol. Below is the Light sub-feature list:

- Light Exposure and Education
- Visual Lighting Design
- Circadian Lighting Design
- Glare Control
- Enhanced Daylight Access
- Visual Balance
- Electric Light Quality
- Occupant Control of Lighting Environments

To ensure completeness and viability of the features, WELL Version 2 was put through a three-phase peer review process. The reviewers included designers, medical practitioners, and scientists. The enthusiasm for participation in this development process was high. One of the reviewers, Chad Groshart, who is global environmental design consultancy Atelier Tan's lighting design practice leader, was [quoted](#) by *Architectural Lighting* as saying, "I was motivated by this idea that someone was trying to build a standard that incentivized good lighting for humans and laid out a framework for how to create a better visual environment for people."

Applying the Model of WELL to User Experience

Imagine how a similar model to WELL, in terms of structure and process, might be applied to the profession of UX design. Can it work for UX? The process is relatively standard, but I'll outline it here:

Process of establishing a feature list:

1. Seek experts in the field and have them articulate the component features of their area of expertise.
2. Seek experts and/or research in related fields of mental, physical, and social health to understand the potential harm and potential remedy for the articulated features.
3. Create a draft of ethical standards by assimilating the gathered expertise and research.
4. Conduct a multi-phase review of the draft ethical standards by peer UX professionals.
5. Refine to final standards, phase 1.
6. Educate and credential professionals in the standards.
7. Create a method to certify projects based on the standards.
8. Iterate the process for subsequent phases when appropriate.

I believe the power of a standard, such as WELL, is in its articulation of all the parts of an artifact—a building in this case—that can affect humans, and in the gathering of all the knowledge about the effects of such parts. It is a substantial amount of work, but the payoff is valuable. It's also a model that provides for educating designers by having a credential to strive for, which results in significantly influencing design outcomes.

Attempting to draw parallels between the specific feature areas of architecture and the feature areas of UX is more challenging. There are some stark differences between the medium of physical materials that make up a building and the digital medium that makes up software

products. The digital medium has a much broader potential reach of what it can do than physical materials do. From augmented reality to virtual reality, from huge infrastructures to tiny, single chip devices, technology can be outside or inside of us. It can be worn or attached to our bodies or live beside us in the same space. The digital medium is not a physical material although it can be embedded in one in various ways, like a smart building for example.

Entertainment is a large part of the digital medium, where the entertainment value may sometimes cause temporary stress or disorientation on purpose. Think of games that illicit strong emotional responses from their users that might be negative in a different context (such as fear), but in the game-context are pure fun. Entertainment is very dependent on creativity and pushing boundaries to the edge; we don't want to stifle creativity by imposing an unnecessarily narrow set of ethical standards.

The digital medium also allows us to create platforms where others can create content and express their opinions—not only like the obvious Facebook and Twitter, where users can post content that is then delivered in feeds—but also those that reach further than a limited subscribing audience, like Pinterest, Reddit, and Medium. It's clear from activities like foreign election meddling, bullying, and hate postings that appear on these platforms that management and restrictions of some kind are required, but we need to find ways to do that without stifling free speech.

Maybe it's fair to say that architecture is different from the digital user experience in that buildings mostly affect our physical well-being (and some of our psychological well-being), while digital user experiences are the opposite. The digital world influences our cognitive and emotional states more than it affects our physical bodies.

Figuring Out UX Features

If we review the high level features of WELL, it's obvious there is not a one-to-one correspondence between features that relate to architecture and those that relate to UX design, although there are some possible correspondences:

1. ~~Air~~
2. ~~Water~~
3. ~~Nourishment~~
4. Light?
5. Movement
6. ~~Thermal Comfort~~
7. Sound?
8. Materials?
9. Mind
10. Community
11. Innovations

Air, water, nourishment, and thermal comfort don't relate directly to UX design.

On the other hand, one could correspond light, sound, and materials to UX design, but the context in which architecture interprets these is different than UX. Light, in the context of architecture, is about light in an environment, whereas in UX, it might include screen brightness as it relates to usability and accessibility. Similarly, sound, in the context of architecture, is about acoustics in an environment whereas in UX, sound might include the

usability, accessibility, and the aesthetics of sound. These features can be made to fit, but don't necessarily feel like they have the right trajectory for UX design.

Movement, mind, community, and innovations have the most correspondence to UX design. Although the context is still not 100% the same, the trajectory of meaning is similar.

Where the above list is exactly how architects think about the components of a design, they are not exactly how a UX designer thinks about design. To understand what others in our field have already proposed as issues of concern in UX design ethics, I did some investigation, reading recent articles and blogs. The topics garnering the most attention are the most contentious areas at this point, including distraction, addiction, bullying, fake news, privacy, and dark web patterns. Other areas, such as accessibility and safety that we know are important but also have well understood solutions, garner a comparatively small amount of attention.

To create a list of UX features, I took a blended approach, taking some direction from WELL and applying it to the well-known features in the UX field (see Figure 2):

1. Accessibility
2. Ergonomics
3. Safety
4. Appropriate Attention
5. Movement
6. Beauty
7. Transparency
8. Security
9. Mind
10. Community
11. Innovations

Proposed UX Design Ethics — Features

ACCESSIBILITY	Reduce obstacles to those with disabilities, including vision, hearing and dexterity
ERGONOMICS	Appropriate, safe and non-damaging for human bodies
SAFETY	Take care with potential life-risking apps such as self-driving cars, robotic surgery, etc.
APPROPRIATE ATTENTION	Use calm tech when appropriate, discourage addiction and distraction
MOVEMENT	Mobility, wearables, fitness, healthy lifestyle
BEAUTY	Consider the aesthetic effects, don't be annoying, unpleasant or unnecessary
TRANSPARENCY	Be transparent about dark GUI patterns, promote awareness of invisible/ubiquitous computing
SECURITY	Understand what, when and why of gathered personal data and protect privacy
MIND	Natural, intuitive or, when appropriate, learnable user experiences
COMMUNITY	Manage bullying, social isolation and fake news
INNOVATIONS	Use new technology to create more natural and beautiful user experiences

If one were to break down, for example, "Appropriate Attention" into more detailed components, it might include some of the following topics, as discussed in a 2016 [Medium](#) article:

1. Social approval
2. Social reciprocity
3. Infinite feeds
4. Fear of missing something
5. Instant interruptions

By articulating out this approach to a greater level of detail, you can see how this could encompass a broad range of issues. Is it the way to go? Time will tell. In the meantime, a couple of other initiatives in technology design ethics are already under way. Let's see how they compare to WELL.

Initiatives Already Under Way

The recently released [Ethical OS](#) is a guide that comes out of the Palo Alto-based think tank [Institute of the Future](#) and a program in the investment firm Omidyar Network called the [Tech and Society Solutions Lab](#), The junction of technology and society is what interests both groups. They propose that the Ethical OS can work to foster links between the large tech companies and the researchers who study technology's increasing impact on society.

One of the approaches that the Ethical OS takes is to use a series of questions rather than provide an explicit set of guidelines. This is effective because it gets away from articulating policies, which can be hard to remember or read. It may be a more adaptable approach that accommodates a wider variety of companies. It is not UX design-specific but could apply to any technology company.

The [Center for Humane Technology](#) is more directly concerned with UX design. It currently focuses on a particular slice of design—user attention and dark web patterns that distract users. Co-founded in 2013 by former Google design ethicist Tristan Harris, it continues to grow and do outreach by articulating the problem, advocating for humane design practices, and promoting methods for consumers to take back control of time spent with their phones.

In conclusion, the WELL Building Standard is rigorous and well developed compared to the initiatives for ethical standards in the UX field, which makes it a valuable resource that we can learn from. This makes sense as we are a much younger and smaller profession than architecture, although we are growing at lightning speed. When you think about how fast digital technology is being propagated, our profession is in a slow-motion explosion. The reach and influence of our work has the potential to be wholly pervasive. Establishing ethical standards that uphold our commitment to "take care of" our users is urgently needed.