

Wicked ethics in Design

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Abstract

Wicked problems are wicked because, amongst other things, understanding problems as existing in society, at the intersection of many possible points of views held by a variety of potential stakeholders introduces indeterminacy. Ethical frameworks in this context may also be multiple and may exist in harmony or dis-harmony alongside each other.

In this paper, we argue for an acknowledgement of this complexity. This acknowledgement includes recognizing a distinction between successful and good design; that design, when considering the best course of action in an ethical and pragmatic sense needs to look beyond the business and consumer dichotomy; that ethical pluralism can exist across multiple stakeholders in an ecosystem; and that our ethical judgements need to be considered within the context of socio-cultural change.

This paper concludes by suggesting a range of interventions and tools that could be incorporated into design curriculum to assist design students with understanding and navigating ethical complexity.

Keywords: Complexity, Ethical judgement, Human-centred Design (HCD), Service Dominant Logic

Introduction

This paper discusses the many levels of ethical consideration that the designer has to account for. It argues that ethics, like design problems to which they are inexplicably linked, exist due to their construction within societal contexts and are thus complex, indeterminate and in need of ‘taming’.

We will discuss and argue for the position that design is required to offer the best decision that enables positive impact for the widest range of actors and environments and it is the designer who carries the responsibility of navigating ethical complexity because of their influence over the future, resources, social practices, and so on.

By drawing on a range of literature generally addressing complex societal problems in design and philosophical concerns related to moral relativism, this paper will argue a position centered around the following:

1. The need to extend the framing of design problems beyond human-centered design (HCD’s) common prioritization of the needs of users and businesses including managing conflicting ethical positions as a result of actors’ prioritization of their own relative ethical positionings
2. Accounting for the affects of change that extend beyond primary actors
3. Acknowledging the challenge of operating in contexts of ethical pluralism in general.

The authors propose that affecting change through a consideration of factors beyond the immediate and relative ethical (or other) needs of primary actors may be more effective for the sustainable resolution of complex societal problems. Furthermore, the designer is required to engage with these broader areas of concern if they are to meaningfully comprehend the potential impact of their design interventions.

This is achieved by the designer understanding the frameworks and systems related to the immediate problem space (codes of practice, policies, judicial laws, constitutional laws, acceptable practice etc.) while recognizing and reflecting on their own ethical motives. These like other aspects of wicked problems need to be understood ‘objectively’ before they can be acted on ‘subjectively’.

This paper will conclude by suggesting a range of interventions and tools that could be incorporated into design curriculum to assist design students with understanding and navigating ethical complexity.

Recognising social complexity and ethical relativism

The idea that design should be responsive to society is not new (Melles et al 2011, p. 143). Both Whitely (1993) in *Design for Society* and Papeneck (1991) in *Design for the Real World* articulated the need for moral and socially responsible design practice (Melles et al, p. 144) to counterbalance the 'market-driven design' that goes beyond the idea of meeting fundamental human needs in the stimulation of human desires to make a profit (Thorpe & Gamman 217, p. 2011, Keinonen 2010, p. 19). However as early as 1973, Rittel and Webber (1973, p. 159) describe the resolving of design problems as an inherently complex activity located in the subjectivity of social processes and networks. Resolving these societal problems, they noted, was a complex act in itself as these problems were ill-defined (ibid: 160), elusive (ibid: 165), and indeterminate having no clear solution (ibid, p. 161). Nonetheless, Rittel and Webber contended, understanding of the characteristics of the societal problem was critical in order to determine what action, if any, the design should engage in.

These types of problems were termed by Rittel and Webber (and are now almost pervasively referred to in design) as *wicked* in the sense that before they could be solved these types of problems needed to be tamed, defined and limited. Understanding wicked problems is akin to understanding the problem-ecology - the complexity from which the problem emerges (Fenn & Hobbs 2012, p. 6). Satisfying peoples' fundamental needs is in design inextricably related to fixing problems (Keinonen 2010, p. 19). IDEO's *Three Lenses of Human-Centered Design* (2008), see Figure 1, models the concept of a problem-ecology at a meta-level. The three lenses of the model, namely Desirability, Feasibility and Viability orientate the different needs that require understanding and fulfillment in order for a design problem to be resolved.

Identifying and objectively understanding the needs of a problem-ecology has become a key area of practice in design particularly in human-centred design (HCD) with numerous methodologies and methods such as Critical Design, User-Centered Design, Contextual Enquiry, Applied Ethnography, Participatory Design (Sanders & Stappers 2012, p. 19).

An array of literature related to recognising needs in a problem-ecology has been devoted to dialogue between designers and people (Sanders & Stappers 2012, Buur & Larsen 2010, Wright and McCarthy 2010) and participatory processes in general (Visser et al 2005, Sanders 2000, Sanders & Stappers 2008, Steen 2010). While there is value in addressing needs in terms of human desires, it is necessary to recognise that need is not purely subjective to the needing individuals alone (Keinonen 2010: p19). What is *needed*, Keinonen argues (ibid), becomes a question of appreciation, values, power and resources and includes numerous other stakeholders such as political decision makers, authorities, business owners, employees, community leaders etc.

Actors of these types, the individuals in need (who themselves may offer contrasting views) as well as designers, themselves, ensure that resolving complex societal problems is always a 'political process' that involves multi-stakeholder engagement and during which stakeholders reveal "different intentions, frequently subversively expressed and very often conflictual towards each other, and that is an unavoidable part of human interaction" (Buur & Larsen 2010, p. 122).

The challenge for design is negotiating the various stakeholders' points of view and achieving a commonly agreed end result (Mattelmäki 2008, p. 65). The dilemma that this paper speaks to is that of the final responsibility for decision-making in the design process. Design is an act of envisioning the future and as such, as noted by Tony Fry (2009), has a responsibility for ensuring there is one.

While participatory design claims to negate much of the bias of the designer and instead place it on the end-user community, does it also therefore shift the responsibility of the outcome of the design

as well? If so, is this naivety at its most callous? As described earlier there are many other stakeholders that wield power and influence over what is 'needed'. Additionally larger macro-forces such as economic and broader socio-cultural objectives such as environmental concerns, the need for employment and gender equity may also influence thinking. Lastly, there is also of course, no guarantee that those directly affected by the problem will act with any concern for anybody else but themselves.

The ethical concerns emerge as such. Firstly, focusing overwhelmingly on users' needs in resolving complex problems implies that the designer suspends their own assumptions and judgments in line with a relativist approach. Moral relativism at first appears a suitable approach for HCD as it accommodates the diversity of beliefs (Dupré 2013, p. 24, Westacott) of multiple stakeholders, however as relativism approaches each belief system as equally valuable, the corollary suggests that each belief system is equally valueless. The outcome of such an ethical stance is the suspension of judgment due to the inability to identify and prioritise the needs which require resolution. Secondly, this crisis of value is further impacted by the likelihood of many of the stakeholders acting in their own self-interest, in an egoistic manner. Therefore in addition to not knowing what needs to be solved it is also unclear as to who should be preferenced in terms of need satisfaction.

The danger of making an appeal to as many ethical principles as possible is that sometimes they conflict. In analysing an action, the course of action that is suggested by one ethical philosophy might contradict the course of action that is suggested by another.

For example, Egoism focuses on self-interest. This ethical principle is used as justification when something is done to further an individual's own welfare. The principle of Utilitarianism embodies the notion of operating in the public interest rather than for personal benefit. However, an appreciation of ethics allows individuals to be aware of all possible ethical resolutions and their respective implications.

In terms of ascertaining a constructive way forward for the designer perhaps Kallman and Grillo express it best when they note:

An appropriate course of action for an individual should only be arrived at after thinking through all the implications. The intention behind an ethical analysis should not be to prescribe a particular set of ethical values for resolving ethical issues invoked by computers. But allow an individual to appreciate all the possible course(s) of action that can be taken according to the differing, and often conflicting, sets of ethical values and then make a judgement as to which is applicable for them in the real world (Kallman & Grillo 1996, p.6).

Good design and successful design

'Good' can be understood as suitable, agreeable, pleasant, well-founded, cogent and satisfactory; or as virtuous, right or commendable (Merriam-Webster online-dictionary). In the context of this paper we use the term 'good' in the sense of the latter where it carries a moral or ethical judgement. On the other hand, the term 'successful' is applied in the prior sense of 'good' where it could also be described as successfully accomplishing the goals set out for the intended intervention, which the design facilitates.

This distinction allows an important question to be posed: is it possible that a design could be successful but not good?

Dark patterns¹ (a term that has arisen in the field of interface design) describe the design of elements in an interface intended to deceive users into agreeing to things that they would otherwise have

1 For more information on dark patterns see: <http://darkpatterns.org/>

potentially disagreed to (Brignull et al n.d). This includes ambiguous phraseology and hiding detail (amongst other things) (Brignull et al n.d).

A design that employs such patterns and, as a result, successfully achieves certain business goals can be understood to be successful (in that it answers the business's goals) but not, good² (in the sense that it misleads users and removes their right to informed choice).

This distinction between successful and good, is important because it raises three perspectives from which ethical considerations operate in relation to design:

1. Is it the design that is un-ethical or the choices made by the individual (responsible for the design) and the commissioning agent who are being un-ethical?
2. How can (and should?) design resolve conflicting ethical positions between players in an ecosystem?
3. Given moral and ethical pluralism and the fact that both morals and ethics and the condition of the world change over time (Dupre 2013, p.25), what are the limits to ethical judgement?

Who, or what, is ethical or un-ethical in design?

A designer that conceives of and/or agrees to a design that, for example, is understood to deceive an end user, would be described as acting un-ethically if they are either acting contrary to their personal ethic (that deception is wrong) or within a socio-cultural framework that deems deception to be wrong. The same would be true of a commissioning agent of such a piece of design (in this case both the commissioning agent and the designer could be said to have crossed some ethical line).

As previously noted, the design may be successful (in its use of deception) however we are unlikely to describe it as good.

But what if we could magically³ alter the ethical context in which a design exists? If the same work of design that involved deceiving users was operating in a context where deceiving users was not unethical, would it make sense to then say that the work of design had become ethical? It seems that the ethical judgement is relative rather to the individual/s responsible for the design and the contexts in which they are operating rather than the work of design, itself.

At the fear of becoming overly obtuse, the authors contend that:

- a) It is the individual doing the design (and where relevant the commissioning agent of the design) that carries the ethical responsibility
- b) However, the work of design itself cannot be said to be, in-and-of-itself ethical or un-ethical. The significance of this distinction will become clear when we discuss the limits of ethical judgements of design later.

In this view the issue of ethics in relation to design is fairly clear: the individual's responsible for a design are either acting ethically or un-ethically in relation to their own personal (or organizational) code or those which exist in their given socio-cultural context.

Resolving conflicting ethical positions

The ethically-relative position that an individual or organization behind a design may hold is not where the discussion ends. It may well be the case that conflicting ethical positions exist between any number of stakeholders in a given ecosystem in which the design operates.

2 'Not good' if misleading users and removing their right to informed choice are ethical boundaries within a socio-cultural context

3 Time is an example of such a magical event

For example, an ethical conflict may exist between the need for a business to honour its profit obligations to shareholders where the means for achieving this involve deceiving customers.

The authors have observed that in many conversations, presentations and student project briefs with HCD, it is implied that by placing an emphasis on the end user, the 'exploitative' nature of the business or organization will be checked. This line of whimsical discourse is often compounded by the belief that if the organization was 'to only listen to the user', both parties would enter some type of fairy tale win-win situation. Thus, it is often tacitly implied that ethical considerations of a design engagement can be met by managing this tension. While valid ethical conflicts may exist in this business / customer dichotomy they often extend further to other stakeholders in any given ecosystem.

The oversimplification of the complexity of relationships in a given ecosystem, and the number and variety of relative ethical positions, in HCD practice and models is of concern. Consider for example IDEO's model for desirability, feasibility and viability in HCD.

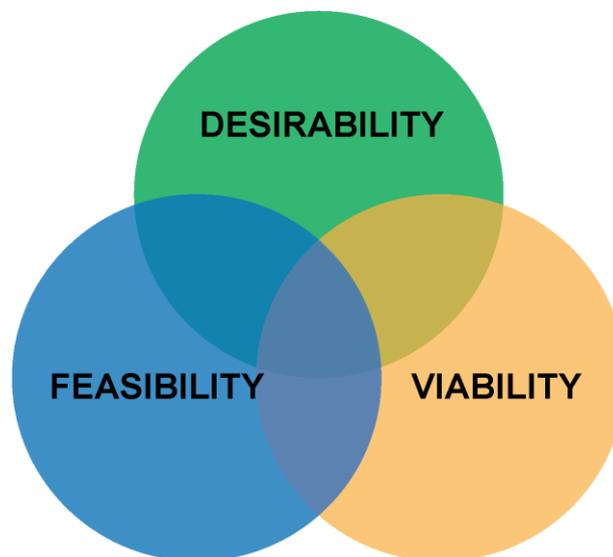


Figure 1: IDEO's Desirability, Feasibility and Viability model. (Based on, IDEO 2008 p. 8)

In this model 'desirability' is defined as what people (end-users) desire, 'feasibility' as what is technically and organizationally feasible and 'viability' as what is financially viable for the business.

The business / customer (or organization / user) dichotomy can be observed at play here where feasibility and viability are largely representative of business or organizational concerns and desirability of user concerns. In this model, technology, is the only area of concern beyond the organization / user dichotomy that is acknowledged.

Consider then that a business may believe that it is acting ethically to its shareholders by reducing costs in production of a product by using a certain material however it may be considered un-ethical if that material contributes to environmental unsustainability.

And what of the potential ethical conflicts to society at large, not just niche groups within the scope of a design project (especially in heterogeneous societies)? What of economic considerations, cultural and political considerations? What of the needs of the marketplace, competitors and both the physical and technological environment?

Service Dominant Logic⁴ (SDL) theory could offer help here: “For service systems, we define value simply in terms of an improvement in system well being and we can measure value in terms of a system’s adaptiveness or ability to fit in its environment...A service system is an arrangement of resources connected to other systems by value propositions, and its function is to make use of its own resources and the resources of others to improve its circumstances and that of others”⁵ (Vargo et al 2008 p.149).

In this view, creating harmonies from conflicts across the ecosystem is a key driver for the success (and sustainability) of the resultant design solution⁶. We would further argue that value propositions between stakeholders in a service system would necessarily resolve ethical conflicts in order to be meaningful.

Furthermore, the business / consumer dichotomy is also challenged as being short sighted in SDL:

“The dominant paradigm in marketing separates the producer from the consumer in order to maximise production efficiency, but this production efficiency comes at the expense of marketing effectiveness. By pursuing a division of labour that led to the separation of parties, including the producer from consumer, a dramatic increase in efficiency resulted. This reinforced an attitude and view that the customer was someone to target and market to versus an entity to market with. The result was poorer and poorer marketing effectiveness but high cost efficiency for producers” (Lusch & S Vargo 2004, pp. 412-413).

SDL theory provides a historical argument for why ethical conflicts emerge in the business / consumer dichotomy. The ethical imperatives in the norms outlined below further suggest how a humanistic approach can resolve conflicts:

“If all firms were to:

- 1) be transparent and truthful to the customer,
- 2) be the guardian and do what is best for long-term customer welfare,
- 3) focus on selling service flows and not tangible stuff, and
- 4) continually invest in the development of human skills,

then we would argue we would have less societal ills or things that government may be prompted to address. In fact a brief journey over the last 100 years will show that the major legislation directed at marketing was largely because firms did not follow the preceding norms” (Vargo & Lusch 2004, p. 416).

While SDL, and service design in general, appear to clear a path towards looking beyond the business/ consumer dichotomy and resolving conflicts across the entirety of an ecosystem (or service system) HCD still lacks models that may assist in deconstructing these spaces to unpack the many relationships and ethically-relative positions that could exist.

The limits of ethical judgement

We have, thus far, discussed ethical pluralism at some length. This pluralism can further be understood to exist across time. As the conditions of the world have shifted so have the socio-cultural contexts in which people exist.

For example, the petrol engine: a great idea in the early Twentieth Century to solve mass-transportation but potentially disastrous now.

⁴ For more details relating to Service Dominant Logic see: <http://sdlogic.net/>

⁵ Also, note the relationship between service design and SDL and that SD can be considered due to their application of co-creation, a form of HCD (Vargo et al 2008 p.150).

⁶ It is worth noting that this view includes product design where in SDL “Goods are [understood to be] distribution mechanisms for service provision” (Vargo & Lusch 2004 p.3).

Earlier in this paper we discussed how a work of design cannot be said to be, in-and-of-itself ethical or un-ethical and that rather, it is the individual or individuals that are responsible for the design that carry the ethical burden in the socio-cultural context in which it exists. This then suggests a limit to our critique of design from an ethical standpoint.

On the one hand it is necessary to retain the ability to remove a work of design from an ecosystem if 'it' is un-ethical but it is equally important to retain the ability to assess the success of a design if we are to learn from and apply the factors of the design that are successful but remove the un-ethical elements.

Ethically, we also stand in a space of paradox, because 1. it always remains a possibility that in the context of pluralism we may not have considered all ethical positions and 2. that we cannot know what shifts may affect our socio-cultural condition such that what was once deemed ethical or not may change.

For an effective critique of design (from an ethical or any other standpoint) it is necessary that we understand it in its most complete context within a given ecosystem. Without this we cannot start to consider all stakeholders and their associated ethical positions. A model for students and practitioners that provides a generic way to view both common and likely stakeholders in any given ecosystem would go a long way to assist with this.

If a design intervention is to be accountable it is necessary that one can trace it's logic back from point of existence (in the world, now) to the hypothesis or interpretation of the original problem space that informed the decisions made as part of its creation. In this way sustainability can be created through adjusting decisions and iterating the design. Although this is unlikely to assist across broad spans of time (from the time when slavery was acceptable to when it became unacceptable, for example) it provides an important and useful basis for the ongoing iteration of design in shorter time spans such that adjustments may be made that can consider the ethical (and other) needs of multiple stakeholders across an ecosystem.

A model that could supplement or work in tandem with the HCD method that provides traceability, accountability and therefore sustainability would also go a long way to assist our humanistic design efforts.

Conclusion

Wicked problems are wicked because, amongst other things, understanding problems as existing in society, at the intersection of many possible points of views held by a variety of potential stakeholders introduces indeterminacy. Ethical frameworks in this context may also be multiple and may exist in harmony or dis-harmony alongside each other.

In this paper we have argued for an acknowledgement of this complexity by HCD: that a distinction between successful and good design needs to be recognised; that we need to look beyond the business (or organizational) and consumer (or user) dichotomy; that ethical pluralism can exist across multiple stakeholders in an ecosystem; and that our ethical judgements need to be considered within the context of socio-cultural change.

We have further identified that an opportunity exists for HCD to address these complexities however the field lacks effective models and tools that could assist students of design and designers in general in:

- Deconstructing and making sense of the ethical (and other) complexities that exist in problem-ecologies
- Designing solutions that strive to create harmonies across the multiplicity of views, needs and ethics of divergent stakeholders, and
- A manner of critique that acknowledges the path to solutions from original problem interpretation such that iterative change can be made within such complexity

Lastly, the objective of such models and tools (and the agenda of a humanistic approach to design) would need to consider the manner in which they assist design in providing accountability of complexity and sustainability through a critique that acknowledges this same complexity.

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