Worlds and Values: <u>A Situated Evaluation Framework for Interaction Design</u>

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Abstract

Individuals draw on various regimes of worth in making decisions, taking actions, and evaluating objects and artifacts. A thoroughgoing situated account of human-centered computing should begin with this premise, and account for the worlds from which these regimes are derived. This paper presents such an account, and develops a framework that allows the evaluation of designs and artifacts according to the specific values of the worlds in which they are intended to operate. For demonstration purposes, the framework will be applied to a case of serious games for health.

Author Keywords

Worlds and polities; regimes of worth; situated view; games for health

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous. See: http://www.acm.org/about/class/1998/ Mandatory section to be included in your final version.

General Terms

Introduction

The recent trend in HCI towards situated accounts of interaction holds great promise in grasping the increasingly complex relationships between humans and machines [3]. Focusing on situated action, as opposed to abstract mental models, these accounts "complement formalized, computational representations and actions with the rich, complex, and messy situations at hand around them" (ibid). However, many of these accounts are still hostage to a traditional view of interaction, which take humans and machines as fixed and stable entities. A thoroughgoing situated view, however, would take both humans and artifacts as historically contingent and unstable categories, which are enacted in the interactions between them in particular situations [5]. To commit to such a view, we need to reconsider the relationship between actions and situations. This reexamination is the hallmark of recent accounts in "pragmatic sociology," which seeks to understand human action in terms of different forms of justification and evaluation. One such account is provided in Boltanski and Thévenot's work in economic sociology, where they show that people resort to various "regimes of worth" depending on the "world" or polity in which they inhabit in any given situation [1].

Worlds and Worth

Boltanski and Thévenot consider different "worlds" as a set of subjects (worthy and unworthy beings), objects (rules, diplomas, tools, lands, buildings, machines, etc.), an investment formula (how benefits are balanced by burdens), a relation of worth (how beings are evaluated in the given world), natural relations among beings (e.g., "marvel," "honor," "promote," "elect," "buy," operate"), and forms of evidence (ibid, pp. 140–141). They have identified six such worlds— namely, the inspired, domestic, fame, civic, market, and industrial worlds—with their concomitant principles, objects, relations of worth, tests, evidence, and so on. Briefly, the *inspired* world is the world of vision, passions, and imagination, where people's worth is determined by their degree of spontaneity, originality, and creativeness. The *domestic* world is the world of traditions, customs, and conventions, where people's worth depends on their upbringing, manners, and character (honesty, trustworthiness, wisdom, etc.) as confirmed by those who have a higher position within a hierarchy of relationships: the elderly, the leader, the wise. In the world of *fame*—the world of attention, persuasion, and presentation—worth is based on the opinion of others. It is a world of identification, where "the most worthy include the others because the latter *identify* with the former," in the fashion that a fan identifies with a "star" (p.181). The *civic* world is distinct in that it attaches primordial importance to collectives instead of individuals. As such, it values solidarity, group membership, and collective interest, which often take a legal form in delegation and representation. The *market* world, not to be confused with a sphere of economic relations, is the world of desire and competition over the possession of valuable, salable, or rare goods. Finally, the *industrial* world is the world of science and technology, where efficiency, performance, and productivity constitute key measures of worth. In this world, people are evaluated on the basis of their reliability, predictability, and professionalism.

In short, each of these worlds holds a particular regime of worth, according to which people are evaluated and, in turn, evaluate other people and objects.

Objects and Values

This view has bearings about how we evaluate objects, artifacts, and designs in at least two ways. First, according to this framework, there are no universal values that govern the evaluation of artifacts and their design; rather these acquire different, and often, contrastive values in each world. Second, values are not internalized as ethical precepts that are respected by individuals in all circumstances; rather the same individual may refer to any or all measures of worth depending on their situation.

Notwithstanding the industrial world, where objects are valued as instruments and means for the purpose of production, other worlds attribute a different set of values to objects. In the inspired world, objects are valuable insofar as they play a symbolic role as attached to persons. In the domestic world, objects are not apprehended according to their own worth, as is the case in the industrial world, but essentially according to how much they contribute to establishing hierarchical relations among people. In the world of fame, objects are identified with in the same fashion that people are—as a happy driver would identify with his car or a well-off family would with their house. Objects, as such, can become a source of attention, respect, and reputation. In the civic world, by contrast, objects are valuable to the extent that they serve a common collective good. Lastly, unlike the industrial world that evaluated objects according to their effectiveness, the market world puts worth on objects according to how much they satisfy desires.

In summary, the perception of objects as instruments of production should be envisaged as a specific feature of the industrial world, not as a property with a higher order of generality applied to all circumstances. Accordingly, the evaluation of designs in human-centered computing should draw on regimes of worth other than the industrial world.

An Evaluation Framework

This perspective suggests the outlines of an evaluation framework for interaction design and human-centered computing. Given that artifacts have varying values in different worlds, designs should be evaluated contextually on the basis of the intended "world" in which they are going to operate. By the same token, if users draw on different regimes of worth in different situations, their evaluation of a design can be meaningfully understood only within the confines of those regimes. Although the types of worlds involved or intended for a given design might vary, one can safely assume that overall they do not exceed a certain small number. The six worlds proposed by B&T may, indeed, provide a good starting point. Given current socio-economic trends, perhaps another world that needs to be added is the "environmental world," which draws its values from the ecological and environmental considerations. The details of this framework will be developed and presented at the workshop.

A Case Study: Games for Health

I seek to apply this framework in the evaluation of a set of serious games for health that we have designed for various age populations, from the young to the elderly. One such game, for instance, is designed to help college students learn health-related behaviors and coping skills having to do with drinking, stress, sexual behavior, and so forth [2]. In our participatory design process, which involved members of the target population (students) as well as health professionals and subject-matte experts (SME), we noticed significant differences in attitude between these groups but also among students in terms of the values that they draw on in evaluating designs. While health professionals are mostly concerned with efficiencies and SMEs with health outcomes, students do not seem to focus on either issue. Instead, depending on their health risks or the health history of their family, they tend to focus more on either the accessibility of health information or the entertainment value of the game

[4]. In other words, each of these groups lives in a different "world" at any given moment.

At the workshop, I will discuss the application of the above framework to the evaluation of these games and the findings from our studies.

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