

## Ethics of Virtuality... Virtuality of Ethics

*Aghlab Al-Attili, Leonidas Koutsoumpos*

*Architectural Studies, School of Arts, Culture and Environment, University of Edinburgh, Scotland, U.K.*

*This paper addresses issues pertaining to architecture, virtuality and ethics by establishing an interactive, non-linear virtual environment as a tool for investigation into the virtuality of ethics and ethics of virtuality, in the context of architecture. Starting from the assertion that 'Virtual Environment (VE) is a metaphor of Real Environment (RE)', we test the proposition that suggests 'Ethics of RE can be tested and simulated in VE'. Challenging the notion that sees people reacting to VE in the same way as they interact with their surroundings in RE, we propose that since ethics are engulfing architecture they are also present and simulated in VE. Virtual architecture has elements of ethics that we refer to as 'Ethics of Virtuality'. In this context, VE ethics seem to lose the ubiquity that is present in RE. In order to examine this hypothesis, we created a VE that corresponds to the RE of the PhD students' offices, within the Department of Architecture, School of Arts, Culture, and Environment in the University of Edinburgh. The real life users of these offices were subjected to this VE. A qualitative method of research followed to probe their experience, focusing on issues related to ethics. Subjects were asked to give a personal accounts of their experience which gave us an insight into how they think. The compiled list of results and their evaluation showed startling possibilities, further establishing VE as an arena for investigating issues pertaining to both architecture and ethics.*

**Keywords:** *Virtual Environments; Ethics; Place; Representation; Trust*

"They say he raped them that night. ...And though I wasn't there that night, I think I can assure you that what they say is true, because it all happened right in the *living room* -- right there amid the well-stocked *bookcases* and the *sofas* and the *fireplace* -- of a *house* I came later to think of as my second *home*." A Rape in Cyberspace (Dibbel, 1998, par. 1) (italics by the authors)

as movie makers and game designers are using Virtual Environments (VE) as forms of representation in order to simulate endless scenarios and possibilities that otherwise cannot be experienced in Real Environments (RE). The connection between this representation and Ethics is self evident in several situations. For example, in a simple computer game, players are ready to kill their opponents relentlessly, in order to achieve their goal and get their reward, unlike most forms of competitions in reality, where players or opponents have to stay within acceptable

In order to communicate space, architects as well

limits. In reality, Ethics engulf this notion of limits or rules. On the other hand, VE appear to release one from these limitations.

Computers introduce an interesting mode of interaction using a metaphorical world or space. As users of this metaphorical space, we are familiar with it, but familiarity does not provide a strong connection between both Virtual and Real modes of space, i.e. not enough to describe our interaction with this space. The connection is more of a relationship in which the consciousness of the user is highly augmented in terms of sensory data perceived from objects in their environment, and from relationships between these objects.

Departing from the basic concept of familiarity, we decided to ask a simple question: *Can Ethics of the Real Environment be tested in a Virtual Environment?*

Answering this question requires more than simply reviewing technical terminologies. Rather we must rigorously engage in the personal experience of the user of this virtual environment.

The various topics of research within cyberspace and VE are generally approached using 'subjective' and 'objective' methods. Some of the techniques used in the 'subjective' methods include self-evaluations produced by subjects in the form of questionnaires (Singer and Witmer, 1999; Lombard and Ditton, 2000), collecting self-reported breakdowns (Slater and Steed, 2000), comments and interviews; or, as in ethics, narratives constructed similar to self-reports (Dibbell, 1998). Problems that have been identified so far include uncertainty regarding whether or not users are aware of their interaction, or if they are over-interacting.

'Objective' methods to measure different physical aspects have been proposed, yet, establishing a correlation between the objective results, like heart rate, skin conductance or posture, and concepts or notions like ethics is possible only when imitating real-life situations. For this, our investigation rather takes us into the realms of phenomenology of place, perception, spatial representation, the nature of digital media and embodiment.

## Ethics and the place of Architecture

"For while the *facts* attached to any event born of a MUD's [*Multi-User Dungeon*] strange, ethereal universe may march in straight, tandem lines *separated* neatly into the virtual and the real, *its meaning lies always in that gap*." (Dibbell, 1998, par. 15) (italics by the authors)

By ethics we usually mean the discourse concerning the evaluation of human actions, characters and feelings, as good or bad in a moral sense. Architecture, according to Maurice Lagueux, raises ethical issues because it 'produces the obligatory framework for social life' (Lagueux, 2004, p. 122), allowing people to come together, or prescribing the way that they perform socially. Departing from this statement, *ethics are ubiquitous in architecture* since one can read every architectural design, built or not, from an ethical point of view.

In this sense, Ethics in the context of architecture is both the normative evaluations of design actions and design outcomes (buildings, landscapes etc) as good or bad according to an external rule or a law; and any descriptive evaluation based on the pre-accepted customs, dispositions or principles by which an architect is guided in the everyday practice of architecture.

This definition of Ethics includes every creation of space both as an outcome and procedure and for this it relates to both the Real and the Virtual environment. Two folds can be examined through this definition. First of all, one can see 'sins' and 'crimes' that take place in the Virtual and Real space. Dibbell's *Rape in the Cyberspace* problematises in a very interesting way the inclusive/exclusive character of the 'halls of LambdaMOO', the VE of a MUD community and its connection with his real life. Secondly, one can see the responsibility of the designer as an architect on the creation of the space that they people will come together. The responsibility of architects in this sense is similar to the responsibility of hackers, wizards and webmasters

*"Should architecture not continue to help us find our place and way in an ever more disorienting world? In this sense I shall speak of the ethical function of architecture. "Ethical" derives from "ethos". By a person's ethos we mean his or her character, nature, or disposition. Similarly we speak of a community's ethos, referring to the spirit that presides over its activities. "Ethos" here names the way human beings exist in the world: their way of dwelling. By the ethical function of architecture I mean its task to help articulate a common ethos." (Harries, 1998, p.4)*

The ethical function of architecture that Harries envisions derives from the Heideggerian notion of *dwelling*, as the condition of being-in-the-world to happen both in the Real and the Virtual Environment. In these terms every subject-being simultaneously dwells in a Real and a Virtual *place* that inherents Ethics to appear both in a Real and Virtual mode.

The relation between subject and space is a problematic one. In a way we have the dilemma of having a real space that has a function and meaning and for many users it stands as a repository for memories and interactions.

The real space is a space with function, memories and interactions, that define 'place'. While the virtual environment is a representation of the 'real' and a repository of meaning, it has no 'real' space. It is a place but not a space. Every subject explores the character of built environment as described in Bachelard's *Poetics of Space* (1964), the home as a cellar, a garret and a hut. The phenomenon of space is closely linked to intimacy and memory in Bachelard's writing. Certain parts of our everyday spaces serve as "repositories" of memories. They also provide a person's prototypical spatial experience, a reference point from which all other spatial experiences derive and with which they are compared. These spaces, or places, are also understood episodically, in relation to sequences of events (walking down the corridor, setting down for lunch, setting down, chatting, etc). From this perspective, our being-in-the-world is

structured narratively. The house serves as a space for Bachelard's narrative, and a house is itself a narrative space.

Although VE is understood in the same way we understand RE, it consists of a 'place' which is separate from 'space' (Malpas, 1999; Gieryn, 2000). 'Place' is a 'space' holding activities and cultural meanings and for this it carries Ethical load.

## **Description and methodology of the experiment**

*"...every set of facts in virtual reality (or VR, as the locals abbreviate it) is shadowed by a second, complicating set: the "real-life" facts." (Dibbel, 1998, par. 8)*

In order to examine this original hypothesis '*Can Ethics of the Real Environment be tested in Virtual Environment?*', we created a VE that corresponds to the RE of the PhD students' offices and common room. The real life users of these offices were asked to perform the same ethically ambiguous action, both in the Real and the Virtual Environment, while their reactions were recorded. In order to increase the familiarity of subjects with their environment, we selected subjects that were users of the environment. All the subjects were international students from both sexes, they all share a design background, and were exposed to the first part of this experiment without knowledge of their active participation.

In the RE phase of the experiment the subjects were called on their mobile phones receiving a call on their mobile phone from one of the authors (from now on 'L'), while working on their office. The scenario was that L could not get into the building because he had left the lock for his bicycle at home and he did not want to leave the bicycle unattended. L asked each subject to bring him a certain amount of money from a pencil case that was in a drawer of an absent colleague, Gabriela. We will refer to this drawer as 'Gabriella's Barrier'.

To further challenge the ethics surrounding

their action, and to create a problematic situation, 'Gabriela's Barrier' was in a public domain, the Common Room that most of the users of that level in the building use to have their lunches and tea breaks. 'Gabriela's barrier' was known as a 'private' domain within the Common Room. The other author (from now on 'A') was in the Common Room at that time working on the common computers, making even more explicit the public character of the place.

In the drawer there was an A4 size note that could only be read when the drawer was fully open, making explicit that the drawer is the property of Gabriela and that they "should not even think of touching it". Moreover, a smaller sticker was attached on the banknotes themselves, with a personal note that gave an extra hurdle by making the subject feel that the money is the personal possession of the owner of the drawer.

The RE, where the first part of the experiment took place, is in the 4th level of The Maltings; one of two buildings housing the Departments of Architecture and History of Art within the University of Edinburgh. Dimensions were measured and the real environment was modelled in a 3D modelling Software (3D Studio Max).

The 3D model from 3D Studio Max was rendered with texture maps taken from the real environment. The model was exported as a Shockwave 3D model into Macromedia Director. Director enables certain interactions with Shockwave 3D models. In our case, we created collision detection in the model and allowed real-time navigation anywhere in the model and in any direction and angle.

To instantiate Bachelard's spatial narrative as a 3D computer model available for game-like navigation and interaction introduces some startling incongruities. As users of this new space representation we sense a familiarity with it, though we are perhaps struck by the mismatch between the medium and our bodily awareness. Our physical presence is perhaps reduced and moved into hardware and software. Our sense of recognition is suspended and the spatial phenomenon reduced to concepts of digital

interaction.

Through the experiment we established familiarity through the similarity between the real and the virtual environment, and then we recorded the natural action of the subject in the real environment and asked the subjects to perform the same action in the virtual environment and measure the virtual action to the scale of the real action.

If the goal is to understand any kind of users' responses (in this case, ethical) in the simulated space, then creating virtual interaction according to the physical one, or identifying the limitation of this system's capabilities, therefore its ability to reflect the ethics, would be of a little use.

Focusing on the general common themes emerging from participants' engagement with the simulation, or the following interviews, is more of use as it is meaningful to the users of the VE (Spagnolli et al., 2003). Perhaps such emerging themes may form the basic foundation for ethics of virtuality, or maybe a more virtual ethics.

A qualitative method of research followed to probe their experience, focusing on issues related to ethics. Subjects were asked to give a personal account of their experience through a questionnaire and semi-structured interviews which gave us an insight into how they think. For the limited space of this paper, what follows is a brief analysis of the most important outcomes of the interviews focusing on the issues of *trust*, *signification*, *consciousness*, *unawareness*.

## Analysis of the experiment

The complex situation that we created through the experiment described above, raises Ethical issues because it puts the subjects into a difficult position from a moral point of view.

The subjects were asked to perform an action that was putting to question more than one aspect of their character. Their colleague, L, was asking for a favour; he was calling, being 'trapped' outside the building while he was in need. All of the subjects felt

that they should help. None of the subjects showed any sign of impatience during the whole process of the experiment in the RE; they all felt that they had to accomplish a task; to help their colleague. This can be also related to the fact that during the interviews all the subjects admitted to giving high priority to Ethical issues and, in the relevant question in the questionnaire, they all evaluated Ethics as very important in their life.

### **The trust “I know you”**

“I wasn’t really thinking... you phoned me asking for something. I know that you are a good guy and a friend, so... I think that even if I had noticed the note I would have done it anyway, because the trust I have in you and the importance I gave to what you asked me to do was more important than a note.” (transcripts from interviews)

It is very interesting that all subjects offered as justification to their action the fact that they trusted L. Knowing quite well the person who was asking them to ‘steal’ (their term) the money, seemed to have played a major role on the construction of their ‘alibi’, during the interviews. All the subjects in the post-rationalization process of the VE experiment created some sort of story about why L was asking them for the money. Some thought that the money was related to the petty-cash of the Postgraduate Seminar Series or more simply that he needed the money because he forgot his wallet as well as his keys, but everyone was trusted that he would put the money back.

Trust has come to be of considerable importance in the study of Ethics only the last twenty years. Baier’s influential article (1986) revealed a big gap in the way that Moral philosophy handled the understanding of trust thus far. Following the feminist line initiated by Gilligan, Baier suggested nothing less than the re-orientation of Ethics around the concept of trust in such a way that “servants, ex-slaves, and women are taken seriously as moral subjects and

agents” (Baier, 1986, p. 247). Even more interesting for the terms of this paper is Baier’s proposal for a moral test of trust that in her own words

“[T]rust is morally decent only if, in addition to whatever else is entrusted, knowledge of each party’s reasons for confident reliance on the other to continue the relationship could in principle also be entrusted –since such mutual knowledge would be itself a good, not a threat to other goods. To the extent that mutual reliance can be accompanied by mutual knowledge of the conditions for that reliance, trust is above suspicion, and trustworthiness a nonsuspect virtue.” (Baier, 1986, p. 260)

In our experiment Baier’s moral test is taken into account, since the researchers did not entrust to the subjects the knowledge of the necessary reasons for ‘confident reliance’. This was done so that the subjects would be responsible themselves for creating the conditions of trust that would allow them to perform the requested action. In terms of Baier’s test all our colleagues took a decision that was performing in the sphere of Ethics. “A trust relationship is morally bad to the extent that either party relies on qualities in the other which would be weakened by the knowledge that the other relies on them” (Baier, 1986, pp. 255-6) Of course the point here is not to argue whether their action was morally good or bad. The point is to the examination of their moral attitude between the Virtual and the Real Environment.

Baier’s innovative definition of trust has been major influence in the literature of trust in Virtual Communities (Friedman et.al., 2000; Chopra and Wallace, 2002; Schneider, 1999).

### **The sign “Do NOT even think of touching them”**

A very interesting aspect of the experiment connected to the concept of trust is that during the RE phase the subjects ignored all the signs that made explicit the fact that they were crossing some boundaries

of privacy; the note that said 'Gabriella's stuff, don't even think of touching them!' and the sticker on the money itself saying 'Viva Brasil'.

One can easily think that since the subjects had already decided to help their colleague they would not stop by such warnings. But this is an oversimplified version of taking Ethical decisions. On the contrary, Ethical decisions are not just a matter of an initial decision making, but rather a constant interpretation of the situation (Coyne and Wiszniewski, 2000). In fact we deliberately put these signs in the drawer in order to create continuous repetition of Ethical boundaries that the subjects would have to cross.

What was really unexpected though, was the fact that all the subjects suppressed the existence of the signs in the RE and they were surprised to see the very same notes in the VE phase.

"I also didn't pay any attention to the note 'Don't take my stuff', cause I was on a mission to go to the coloured pencil thing and steal money. [laughter] So I didn't read the note. I didn't even know that it was there. In fact this is the first time that I was aware that there was a note in that drawer. That's interesting." (transcripts from interviews)

"Now, was that sheet there when I opened the drawer? -Yeah -It must be, it must have been. It wasn't on top of things, I don't know did I just miss it or what? It was in exactly the same place as in the VE." (transcripts from interviews)

One can draw the conclusion that the trust they showed their colleague withdrew the existence of the signs from their notice or memory. The trust that was the result and the outcome of a series of boundary-crossings concealed important facts of the RE, that during the Virtual phase were revealed and made obvious.

### **Consciousness: "That money would have been replaced."**

The process of "changing environments" induces a momentary sense of distance from ethics. With the issue of RE and VE there is an interaction between the two conditions suggested by Heidegger, of the "ready-to-hand" and "present-at-hand", and is also supported by the 'space' 'place' relationship. Ultimately, we maintain that the subject alternates between these two positions of interaction with RE and VE while trying to achieve the goal. Performing both tasks provides a means of abetting this process. The subject, without being aware of it, highlighted the feeling of discomfort in the first phase as he was reacting to the experiment. Ethics was the background player. In the second phase, ethics became a present-at-hand element.

Our investigation takes us into the realms of the phenomenology of perception, spatial representation, the nature of digital media and embodiment. We illustrate our point with an example from one of the user's responses and attitudes to the issue

"That's it. I have gone down. I have opened the door. I opened the drawer, and I was not confronted by any dilemmas..... whereas before I was." (transcripts from interviews)

### **Unawareness: "So you did not make the connection?!"**

The French philosopher Maurice Merleau-Ponty, in *Phenomenology of Perception*, first published in 1945, emphasises the role of the human body in perception. He analyses different bodily attributes to account for this role: the body as object, the experience of the body, spatiality, motility, synthesis, the sexual being, and the body as expression.

As our body constitutes a first "frontier" when encountering the world, the way we structure space draws from it. Everything about our body is not only co-ordinated, but derives a functional value that we don't have to learn but is already known to us. His investigation leads him to assert that our conscious-

ness is *embodied* in the world.

Merleau-Ponty maintains that “the perception of space and the perception of the thing, the spatiality of the thing and its being as a thing, are not two distinct problems.” (Merleau-ponty 2003, p. 171). The subject’s awareness of the surroundings and the surroundings themselves are not two different things. RE and VE are what the subject perceives them to be. Although the task was oriented towards a target, the subject missed essential information and did not build or construct the relation between booth phases. Instead, the subject carried both tasks separately and successfully. Ethics is a value embedded in both RE and VE.

“...it was the first time I heard Gabriela had a drawer. And now when I heard it there, it reminded me of something like I have already heard Gabriela’s thing somewhere, but I did not remember when or where.” (transcripts from interviews)

“I do so many things without thinking; I put my keys in my pocket and then I don’t remember where they are, or I borrowed a book from the library and then I went again asking for the same book. I don’t think” (transcripts from interviews)

## Conclusion

Returning back to the original question ‘*Can Ethics of the Real Environment be tested in Virtual Environment?*’, our experiment has made a contribution towards a positive answer. The comparison of the *Ethics of place* in RE and VE seems to promise a wealth of potential investigation that could follow on. Beyond the analysis of *trust, signification, consciousness, unawareness* that were tackled here, a number of other issues were raised during our experiment, but cannot be expanded in the limited space of this paper: the understanding of the task as a *game*, the connection of trust with the existence of an already strong community, the connection between the attention

to navigation; and the lack of focus on the Ethical dimension of the task and ultimately the dilemma of the virtuality

However, we realize the limitations of this experiment since it is still far from providing a formal testing procedure. For example, in its current form, the experiment fails to address issues related to the presence of the other in the VE, the creation of the emotional load in the delivery of the instructions in the VE and the awareness –though partial- of the repetition of a procedure that corresponds to the RE.

Nevertheless, the compiled list of results and their evaluation shows startling possibilities, further establishing VE as an arena for investigating issues pertaining to both architecture and ethics

Finally, it occurs –altering Diddel’s words of the rape- that ‘To participate, in this disembodied enactment of life’s most body-centered activity is to risk the realization that when it comes to Ethics [and not only sex], perhaps the body in question is not the physical one at all, but its psychic double, the bodylike self-representation we carry around in our heads.’

## Acknowledgements

We would like to thank the postgraduate community of Architecture in the University of Edinburgh for their support and co-operation during the experiment. All students’ names and details have been changed in order to protect their privacy.

We would like also to thank Keith Ballantyne for his careful reading of the draft and his substantial comments.

## References

- Baier, A.: 1986, ‘Trust and Antitrust,’ *Ethics* 96, no. 2: pp.231-60.
- Chopra, K. and Wallace, W.: 2002, *Trust in Electronic Environments*, Proceedings of the 36th Hawaii International Conference on System Sciences
- Coyne, R. and Wiszniewski, D.: 2000, ‘Technical Deceits:

- Critical Theory, Hermeneutics and the Ethics of Information Technology." *International Journal of Design Sciences and Technology* 8, no. 1, pp. 9-18.
- Dibbell, J.: 1998, *A Rape in Cyberspace (Or TINYSOCIETY, and How to Make One) in My Tiny Life*, (<http://www.juliandibbell.com/texts/bungle.html>: June, 2006) First published in somewhat different form in *The Village Voice*, December 1993.
- Friedman B., Kahn, P., Howe, D.: 2000, *Trust Online*, *Communications of the ACM* December, Vol. 43, No 12
- Gieryn, T.F.: 2000, *A space for place in sociology*. *Annual Review of Sociology* 26, pp. 463–496.
- Harries, K.: 1998, *The Ethical Function of Architecture*, Cambridge, Massachusetts; London, England
- Johnson, M.: 1996, *The body in the mind: The Bodily Basis of Meaning, Imagination, and Reason*, Chicago: The University of Chicago Press.
- Lagueux, M.: 2004, "Ethics Versus Aesthetics in Architecture", *The Philosophical Forum* XXXV, no.2: pp. 117-33.
- Lombard, M., Ditton, T.B.: 2000, *Measuring presence: a literature based approach to the development of a standardized paper-and-pencil instrument*. *Proceedings of Presence 2000: The Third International Workshop on Presence*. Available at: <http://nimbus.temple.edu/Bmlombard/P2000.htm>.
- Malpas, J.E.: 1999, *Place and Experience. A Philosophical Topography*. Cambridge Univ. Press, Cambridge.
- Merleau-Ponty, M.: 2003, *Phenomenology of Perception*, London and New York: Routledge
- Singer, M.J., Witmer, B.G.: 1999, *On selecting the right yardstick*. *Presence, Teleoperators and Virtual Environment* 8 (5), pp. 566–573.
- Slater, M., Steed, A.: 2000, *A virtual presence counter*. *Presence, Teleoperators and Virtual Environment* 5 (9), pp. 413–434.
- Schneider, F., Ed.: 1999, *Trust in Cyberspace*. Washington DC, National Academy Press
- Spagnolli, A., Varotto, D., & Mantovani, G.: 2003, *An ethnographic, action-based approach to human experience in virtual environments*. *International Journal of Human-Computer Studies*, 59, pp. 797-822.