

Hubert Dreyfus: **On the Internet**. London: Routledge, 2001, 107 pages.

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The philosopher Hubert Dreyfus who published the groundbreaking critique on artificial intelligence, "*What computers can't do*" (1972), has always argued for fundamental differences between embodied humans and the disembodied machines. In his recent book, Dreyfus puts forward a critical comment on the Internet. Taking a phenomenological perspective he asks, what is the price that we pay when we leave our bodies behind and go on-line.

Before continuing, a short update on the authorship may be helpful. As mentioned above, Dreyfus (1972) was one of the first to launch a critique of the artificial intelligence research program put forward by Alan Turing in the 1950's. The critique focuses upon the rationalistic neglect of the program to see embodiment and situatedness as fundamental aspects of intelligence. The program, later referred to as Good Old Fashioned Artificial Intelligence (GOFIAⁱ), follows a platonic and Cartesian tradition of seeing abstract intellectual capacities as the most important aspects of human intelligence. An understanding that leads GOFAI researchers to programme computers with symbolic representations of rules and facts, hoping that it would eventually provide the machines with the capacity for intelligent action. Today the GOFIA research program is in decline and the main AI researchers have shifted to models of the mind of greater complexity. In his critique of the GOFAI research program, Dreyfus follows Nietzsche in arguing that the emotional and intuitive capacities of our embodied being in the world are fundamental for intelligent action. Based on the same arguments, Hubert Dreyfus, together with his brother Stuart Dreyfus (1991), formulated a skill acquisition model consisting of five modes of functioning from novice to intuitive expertⁱⁱ. In later writings, Hubert Dreyfus has discussed the skill acquisition model in relation to apprenticeship, and argued that access to imitation of experts is important to acquire the highest mode of functioning - intuitive expertise (1999). In the book reviewed here, Dreyfus follows the same phenomenological line of discussion and points his arguments towards the Internet. The result is a short and thought-provoking book to read for any net enthusiast and/or scholar who have interest in the topics of learning, knowledge and identity in relation to the Internet.

The focal question posed in the book is; how can we relate ourselves to technology in a way that not only resists its damaging effects but also gives it a positive role in our lives? Dreyfus follows Heidegger's view on modern technology as owing the possibly to turn upon the subjects and hold independent goals of more and more flexible and efficient ordering of resources. Heidegger's point is that the subject is in danger of being eliminated along with the production of modern technological objects. That modern man is in danger of being mastered by modern technology. The Internet is, with its characteristics of flexibility and ability to adapt, the perfect modern technology. Following Heidegger's technology pessimistic standpoint the book opens up a discussion on the possibly damaging implications of the Internet.

The book starts by pointing towards the Internet's ability to free us from the limits imposed by our bodies. It is then argued that this freedom from our emotional, intuitive, situated and vulnerable embodied selves in Cyberspace is, ironically enough, the greatest weakness of the Internet. The argument is that the world is organized by and for embodied active agents and therefore we lose the grip of the world when we are set free as disembodied selves in Cyberspace (p. 26). We lose "...our ability to make sense of things so as to distinguish the relevant from the irrelevant, our sense of the seriousness of success and failure that is necessary for learning, and our need to get a maximum grip on the world that gives us our sense of the reality of things. Furthermore, we would be tempted to avoid the risk of genuine commitment, and so lose our sense of what gives meaning to our lives" (Dreyfus, 2001, p. 7). These four losses are discussed in the book's four chapters.

The loss of the ability to recognize relevance

Loss of embodiment is necessarily followed by a loss of ability to recognise relevance. Dreyfus argues that the Internet gets in the way of our ability to make sense in the world and distinguish relevant from irrelevant. The reason is that our ability to recognize relevance is closely connected to the shape and movements of our bodies. When we surf on the Internet, we are bodily disconnected from our search. The search is effectuated by a search-engine, a piece of technology that follows rules and facts. Remember that the skill acquisition model states that only human beginners would search this way (Dreyfus & Dreyfus, 1991). Search-engines do not consider situation specific elements and as such, they function on a low skill level.

A related problem, discussed by Dreyfus, is that the Internet consists of an enormous amount of hyperlinked materials but lacks a librarian to classify and select the material. The hyperlinked Internet is single-level, flexible, allowing all possible associations, inclusive,

saves everything and makes all texts available. These characteristics, says Dreyfus, prepare the ground for growing intertextual evolution and playful non-committed surfing with no clear goal. As a hyper-connected library holding these characteristics, the Internet does not afford “...a modern subject with a fixed identity who desires a more complete and reliable model of the world, but rather a post-modern, protean being ready to be opened up to ever new horizons. Such a new being is not interested in collecting what is significant but in connecting to as wide a web of information as possible” (Dreyfus, 2001, p 11). By supporting such playful non-commitment, the Internet makes it difficult to transcend the competent level and move towards expertise. To transgress the competent level it is necessary to run the risk of genuine commitment; you must commit yourself to the task and run the risk of failure.

We cannot require skills in Cyberspace

Cyberspace is an arena of risk-free interaction that does not afford genuine commitment, and therefore it cannot help learners to go beyond a competent level. “If telepresence cannot deliver the classroom coaching and the lecture-hall presence through which involvement is fostered by committed teachers, as well as the presence to apprentices of masters whose style is manifest on a day-to-day basis so that it can be imitated, distance learning will produce only competence, while expertise and practical wisdom will remain completely out of reach” (Dreyfus, 2001, p. 49). Dreyfus emphasises the importance of bodily present masters on a day-to-day basis to reach the skill levels of mastery and practical wisdom. To become expert and maybe even acquire **mastery**, you need access to be the apprentice of masters whose style is manifest on a day-to-day basis, so that it can be imitated. Dreyfus makes it clear that the bodily presence of apprenticeship is the only technique available for passing on a style. The concept of style refers to characteristics of the master’s approach and way of handling problems. Dreyfus mention that “an inspiring teacher like Wittgenstein left several succeeding generations of students not only imitating his style of questioning but even his gestures and puzzlement of desperation” (Dreyfus, 2001, p. 44). Dreyfus does not argue that apprentices should become mere copies of their masters. On the contrary, he argues that only by developing his own style the apprentice can achieve mastery on his own.

The concept of **practical wisdom** comes from Aristotle, and has to do with a person’s “general ability to do the appropriate thing, at the appropriate time, in the appropriate way” (p. 48). Dreyfus argues that practical wisdom can only be gained by being apprentice to one’s parents and teachers (Ibid.). It is easy to agree that apprenticeship of everyday life is crucial for developing practical wisdom. However, the book overlooks an important aspect of everyday life apprenticeship, namely the importance of being apprentice of one’s peers.

Before continuing, it should be mentioned that Dreyfus leaves the possibility open that the Internet some day will be able to deliver the necessary characteristics to become a true alternative to bodily presence. Saying that; *“if telepresence could enable human beings to be present at a distance in a way that captures all that is essential about bodily presence, then the dream of distance learning at all levels could, in principle, be achieved* (p. 49).

Nevertheless, under the present conditions, domain specific skill acquisition as well as practical wisdom in life must be mediated by bodily present masters to lead to expertise and mastery. Learning mediated by the Internet is not enough. Following this conclusion at least one problem arises; namely the problem of how to explain the acquisition of expertise and mastery in Cyberspace. Take for instance youngsters who become extremely skilled in playing computer games, where both rehearsing and tournaments take place in Cyberspace. The principal difference between this example and the ones presented by Dreyfus, mainly coming from his own teaching in philosophy, is that learning computer gaming in Cyberspace is not intended transferred to another context of application. The context of learning and the context of application are the same. Seen in this perspective the examples given by Dreyfus are arguments for, why we cannot become experts outside Cyberspace when learning takes place in Cyberspace. As such, Dreyfus can be seen as discussing the problem of transfer in relation to Cyberspace. However, the question of how to become an expert or master in Cyberspace is simply bypassed. Practices like playing online computer games do not necessarily point out of Cyberspace; the practice is itself situated in Cyberspace. If we take Dreyfus' central point, that learning needs to be mediated by bodily present masters, for granted, it leaves us with two possibilities to explain expertise in online computer gaming. Either arguing that expertise in online computer gaming is taught somewhere outside Cyberspace by imitating bodily present masters. This argument seems odd considering that the context of application is in Cyberspace. Furthermore, such an argument would imply a reversed transfer problem. Another line to take would be to argue that expertise is not possible in the skill-domain of online computer gaming. However, neither of the two possibilities seems very convincing.

The loss of a sense of the reality of people and things

The Internet does not give access to maximum grip. Merleau-Ponty's concept of maximum grip refers to a bodily tendency to get an optimal grip on the world. *“...When we are looking at something, we tend, without thinking about it, to find the best distance for taking in both the thing as a whole and the different parts”* (p. 56). Maximum grip is this tendency of our body, through constantly moving around, to organise our experiences in the world into experiences of stable objects. Following Merleau-Ponty's body phenomenology Dreyfus argues that if

there should be a sense of presence in telepresence it must constantly apply us with the possibility to get a grip on whatever comes along. This is not yet a reality in Cyberspace, and it will probably never be. The *intercorporeality*, as Merleau-Ponty puts it, of everyday embodied interaction cannot be captured in Cyberspace no matter how much we add together 3D images, stereo sound, remote robot control and so forth.

Life without meaning

Internet mediated learning tempts us to avoid the risk of genuine commitment. The anonymity and simulated reality of the Internet makes it possible to avoid genuine commitment. Dreyfus argues that the Internet is the ultimate enemy of unconditional commitment in modern western society, just as Kierkegaard saw the press to be in his time. Uncommitted anonymous net-surfers make enjoyment the centre of their lives. As such, they live in what Kierkegaard called the aesthetic sphere of existence, which will eventually lead to despair. The only way out of this despair is the unconditional commitment of the religious sphere of existence. Even though the Internet does not prohibit unconditional commitment, it heavily undermines the possibility of taking on unconditional commitment. *“The test as to whether one had acquired an unconditional commitment would come only if one had the passion and courage to transfer what one had learned on the net to the real world”* (p. 88). The ultimate task is whatever one manages to escape the uncommitted anonymous nihilistic leveling of World Wide Web and transfer what is learned to unconditional commitment in the real world. Once again, it is evident that Dreyfus does not consider the possibility that what is learned in Cyberspace is primarily to be used in Cyberspace. In sum, the Internet is seen as a rather dangerous tool for learning; a tool that should be treated with great caution considering its inherent tendency to turn upon us and lead us towards living our lives in an unconditional aesthetic sphere of existence.

Regardless that the solid argumentation in some places seems to be sacrificed on behalf of a short and easy accessible style, not to say a style that requires only unconditional commitment the book can be recommended. It is an interesting and definitely much needed book that tells an alternative and critical story about the dangers of the Internet. Let me once again state that it is a short thought provoking book that can be read by any net enthusiast and/or scholar who is interested in the topics of learning, knowledge and identity in relation to the Internet.

Literature

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- ⁱ The research program put forward by computer pioneer Alan Turing. He suggested that high-speed digital computers programmed with rules and facts will be able to produce general intelligence. This research program has been called Good Old Fashioned Artificial Intelligence (GOFIA).
- ⁱⁱ Dreyfus & Dreyfus (1991) suggest a model of skill acquisition as five steps from novice to expert. At the first level, the *novice*, the learning subject starts, mediated by a computer or a more skilled person, to dissolve the task in context independent rules and facts that can be recognized and used without further experience. The characteristics of the second stage, the *advanced beginner*, are that skilled behavior is no longer based on context independent rules and facts. The subject learns, mediated by a computer or a more skilled person, to pay attention to important context specific aspects and make rules for these. At the stage of *competence*, the amount of context specific elements behind the skilled behavior increases, and this cause problems in differentiating between important and less important elements. The important new at this level is that the person's sense of responsibility towards his actions increases as the amount of possible actions increases. The competent level is a turning point. If the learning subject dares to change his rule and fact following behavior with commitment, it can lead to further development. At the level of *proficiency*, rules and principles that until now have represented the person's theory of skilled behaviour are changed towards context specific discrimination followed by connected reactions. The proficient person is not in doubt of what to do in the situation. Systematically judgements have been replaced by a more holistic goal adjustment of action. The committed proficient person perceives what to do directly in the situation and act immediately. The *intuitive expert* does not only know what to do, but also how to reach the goal, and both whiteouts going through rationalistic calculations. Through experience the expert have learned to differentiate between subtle discriminations, and this has put him/her in position to act adequate in concrete situations with no need to apply distanced reflective thinking.