

# REFLECTIONS ON LEARNING AND LEARNERS

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## **I Have a Bias**

One can't help being influenced by one's own experiences when thinking about what it means to be a learner, what learning entails and how it impacts people. So many things we learn throughout life and in so many ways do we profoundly change, thanks to our ability to learn, as we grow older. The diversity of who we are and the different circumstances in which we find ourselves can't but produce a rich variety of ways in which we attribute meaning to the experience of learning.

I spent a significant portion of my younger years becoming a physicist, going through formal university training; learnt making documentary films entirely on my own through extensive reading and experimenting with film equipment; became effectively conversant with the Spanish language using a self-instructional book with accompanying audio recordings; failed on various occasions when I tried to do the same for Arabic but finally succeeded when the opportunity arose to take face-to-face classes; learnt to play the piano since the age of eight and am still learning, either by taking the occasional lesson or by trying things out for myself, carefully listening to the performances by others; familiarized myself in my late forties and fifties with the instructional design field, again using the formal setting of a university but this time only after serious negotiation about how I would use that environment; and learnt to construct complicated musical instruments, having acquired basic woodworking skills as a child while watching my father using his hands in applying those skills—as well as other skills that I still had to learn—following detailed written guidance. Besides the above more obvious instances of learning, I learnt numerous other things, such as overcoming shyness, accepting tragic and irreversible loss, and interacting gently with most of those I meet, none of which were ever taught to me in any formal way or setting. I had to find out for myself, interacting with those whose advice I chose to accept and whose model I wanted

to follow. Learning, in each person's life, is extremely varied and it often remains a mystery what suddenly seems to turn the switch between being an apprentice and the master of one's abilities.

While I learnt many component skills, such as solving second-order partial differential equations; planing a piece of wood; editing a sequence of film shots; or presenting an argument in written form, those are not the things I feel added real value to my life. Without the more comprehensive perspectives of becoming a theoretical physicist, able to contribute to my field of interest; building musical instruments that I or other people would want to play; producing a documentary movie on an issue I felt passionate about; or being a contributing intellectual, none of the above skills, however competent I might have become in performing them, would have meant much to me.

Thus, my perspective on learning is one that is in the first place determined by awareness of the various comprehensive roles we wish to play in life. We want to be a good parent, a skillful carpenter, an effective teacher, a creative physicist, or a performing pianist who thinks with his own head rather than imitating someone else's performance.

### **A Matter of Definition**

In answering a number of the questions posed in this dialogue, I am turned in the first place to those I raised myself (Questions 1 to 3). I proposed the third of these questions as one that should be dealt with before any other one. It asks: "What does learning actually mean?" and suggests that a response to it has something to do with "our view of what it means to be human" (J. Visser, in this dialogue).

I usually express my view of what it means to be human in materialistic terms. My down-to-earth view of members of the human species is that they are nothing more but also nothing less than pieces of organized matter—just the same as rocks, plants, and other animals. What makes them special and somehow unique is the fact that, in the course of evolution, humans became endowed with the faculty of consciousness, the ability to reflect on their actions, to hold things in mind and contemplate them, carrying out thought experiments, and to foresee, to an extent, the consequences of what they intend

to do. What exactly consciousness is; to what extent some form of it might be present in other species or be an exclusive feature of humans; what allowed it to emerge; and what are the neuronal correlates of consciousness are questions in which only recently some tentative insights have started to develop (e.g., Edelman and Tononi, 2000; Carter, 2002; Greenfield, 2002; Edelman, 2004; Koch, 2004; Koch 2005; Steinberg, 2005).

Consciousness allows us to experience joy and sorrow as we transit through life. It is the cause of the eternal amazement with which we stand, generation after generation, in awe of who we are, where we come from, what we are here for, and where we are going. It is at the origin of our sense of belonging, of being part of a larger whole, an experience to which we give expression in religious beliefs, mythologies, evolving world views based on the methodical and disciplined pursuit of scientific insight, and great works of art.

Within the above perspective, being human means having the unique faculty of participating consciously—for a brief moment—in the evolution of the universe. This is both an outrageous claim and a call to humility.

If one accepts the above vision of being human, then learning must be conceived of in a similarly broad perspective of purposeful interaction with an environment to whose constant change we must adapt while being ourselves the conscious participants in creating it. 'Constructive interaction with change' thus ought to feature prominently in a definition of human learning at this level, expressing what ultimately learning is all about. Besides, it should be recognized that not only individual human beings partake in such constructive conscious interaction with change, but that the same behavior equally applies to larger social entities at a variety of levels of complex organization. Moreover, learning as conceived in this perspective is intimately interwoven with being alive. It is therefore not something one engages in every now and then, but rather a lifelong disposition. Finally, the disposition referred to in the last sentence is characterized by openness towards dialogue. Hence, I define human learning as "the disposition of human beings, and of the social entities to which they pertain, to engage in continuous dialogue with the human, social, biological and physical environment, so as to generate intelligent behavior to interact constructively with change" (J. Visser, 2001). When I first proposed this

definition, I called it an ‘undefinition,’ referring to its intended purpose to remove the boundaries from around the current, too narrowly conceived, definitions of learning.

### **Four Levels of Learning**

The above definition of learning applies at the most comprehensive level of being human, the level at which we are most distinctively different from anything else that learns, such as non-human animals or machines. Nonetheless, it should be recognized that human adaptive behavior, and thus learning, occurs at least at the following four levels of organizational complexity, some of which we share with other organisms (J. Visser, 2002, n.p.):

- Level 1: Interaction with threats and opportunities in the environment through genetically transmitted preprogrammed responses, e.g. fight and flight responses.
- Level 2: Acquisition of essential environment-specific abilities, such as mastery of the mother tongue, driven by an inherited predisposition to do so.
- Level 3: Deliberate acquisition of specific skills, knowledge, habits and propensities, motivated by individual choices or societal expectations, usually by exposing oneself to a purposely designed instructional – or self-instructional – process.
- Level 4: The development and maintenance of a lifelong disposition to dialogue with one’s environment for the purpose of constructively interacting with change in that environment.

It can be argued that the above four levels of learning-related adaptive behavior in humans “represent a progression of increasingly higher levels of consciousness about one's role in life and in the world” and that “the four levels are not entirely distinct from each other” (n.p.). In fact, they may interact.

Not everyone is happy with a comprehensive definition like the one referred to above because it is difficult to use in the operational context of intentionally designed instruction. Besides, it may be seen to stress the obvious (see for a brief polemic on this issue the exchange between Chadwick, 2002, and J. Visser & Y. L. Visser, 2003). Most common definitions of human learning contemplate adaptive behavior at Level 3. There is nothing wrong, at least not in principle, with defining learning more restrictively—as is often done (see e.g. Jonassen’s [2002] definition referred to in connection with Question 23 in this

dialogue)—than my own comprehensive definition. It would be wrong, though, to do so without having in mind that one is dealing with only a segment of what it means to be learning. However important that segment may be at a practical level of intentional intervention in changing human performance capability to serve accepted societal goals—these days usually related to the interests of the prevailing economic model—by closing one’s eyes to human functioning at a higher level of consciousness one is at risk of developing human beings who increasingly lose the capacity to intervene in ever more complex situations at a time when the major problems the world faces are exactly situated at such a higher level of complexity.

Thus, in view of the above rationale, I should like to argue that, at whatever level we interact with the development of human learning in our fellow citizens, we should always do so within the perspective of the highest level of complexity within which we expect people to be able to operate. Against the backdrop of that argument it is sad to observe how increasingly formal education, up to the highest level, is being dealt with as if it were a mere commodity (see for arguments in favor of this position Daniel, 2002, and Daniel, 2003, and for opposing arguments Jain et al., 2003).

### **Is There Such a Thing as an Online Learner?**

I raised the question (Question 1), “Is the online learner a distinct subspecies among the wider species of learners in general?” (J. Visser, in this dialogue). The underlying thoughts that accompanied my question, particularly the reference to Dreyfus’s (2001) claim that the online environment is incapable of accommodating “emotional, involved, embodied human beings” (p. 48) in ways that allow those who learn to reach proficiency and expertise, triggered off another question (Question 29), “What *really* is embodied learning, and how does it affect the effectiveness of instructional modalities?” (Y. L. Visser, in this dialogue). Stirling (in this dialogue) draws attention in Questions 4, 5 and 6 to the expectations created in learners due to their participation in online learning environments whose features, and ways in which those features are being used, affect the learners. In Question 8, Spector (in this dialogue) also refers to learner expectations, suggesting that “many expect more in terms of improved learning

from an online course than a face-to-face course.” I doubt whether this is indeed the case, but agree with both Stirling and Spector that it is reasonable to assume that the environment in which one learns creates expectations—perhaps not only in the learners, but also in those who facilitate the learning—that are determined, at least in part, by the characteristics of that environment. Merriënboer in this dialogue (Question 10) suggests that the entire concept ‘online’ may just be too broad to be useful to generate specific research questions. This suggestion, on the one hand, underlines that the environment is a likely factor (or set of factors) of influence but, on the other hand, it also points to the need to become more specific in describing the various defining characteristics of learning environments. I would argue, in that case, that such a differentiated approach in referring to the learning environment is similarly relevant in the case of online, face-to-face and hybrid learning settings.

Nonetheless, the online learning environment has its own specificities. For instance, it is able to facilitate kinds of learning, such as through global collaboration and online gaming (LaPointe’s Questions 14 and 15 in this dialogue) and allows kinds of learner behavior, such as ‘invisible’ and anonymous participation (Beaudoin’s Questions 16-18 and Y. L. Visser’s Question 26 in this dialogue) that are far less likely to occur in traditional settings. Besides, there are technical possibilities in the online environment that potentially allow new learning spaces to be opened up (see e.g. Bransford’s Question 22 in this dialogue) that may less easily come to mind to learners whose sole perspective is that of the face-to-face context. On the other hand, Rogoza’s Question 30 (in this dialogue) highlights the fact that, whatever the potentiality of the online environment, the reality often remains below what is potentially possible. Besides, as suggested by Question 26 (Y. L. Visser, in this dialogue), this same environment may be responsible for generating in students a number of unintended and undesired behaviors that detract from reaching online learning’s full potential.

I am not aware, when in the 15<sup>th</sup> century the printing press was invented and print materials came into wide use among the general public, that it resulted in the emergence of p-learning and p-learners. When Jan Amos Comenius published his *Orbis Sensualium Pictus* in 1658, calling attention, by

doing so, to the importance of appealing to learners' senses by including visual illustrations in instructional text rather than capitalizing on their ability to memorize, it didn't result in isolating i-learning as a particular kind of learning, nor did the advent of instructional radio lead to r-learning or that of instructional use of TV to t-learning. Against the backdrop of a centuries old history of the use of media in education, there seems little logic in the current tendency to reserve a special place for such things as e-learning and m-learning for those instructional practices that involve the use of electronic communication via computer networking and handheld mobile devices, respectively.

The beauty of learners is that they are, well . . . learners. They come to the world hardwired to explore their environment (Gopnik, Meltzoff, & Kuhl, 1999). They create their own path through life while moving along, together with their fellow learners. Faced with different opportunities in which particular modalities—such as face-to-face instruction or education at a distance via a variety of media—may be dominantly available, good learners, those that have not been told that there is only one way in which to learn, will find their way not just by exploring the initially chosen option but equally by accessing multiple additional opportunities beyond the given one. Defining someone as an e-learner or distance learner, even within the context of a particular instructional context, is tantamount to discouraging such a person from engaging in such wider explorations.

Thinking back of the learning experience I know best, my own, I'm pretty confident that I would never have learnt Arabic had I stuck to the idea that I should meet this challenge through self-instruction; I would not have become a competent musical instrument builder had I limited myself to merely following the guidelines of the harpsichord building manual that I had at my disposal and had I not sought further advice from other builders and craftsmen and experimented with several techniques of my own invention; I would not have deepened my understanding of physics had I not supplemented an already excellent university program with weekly discussion and work sessions with a fellow student and friend who had similar interests and had I not explored what was on offer at other universities and in related fields; and, finally, my

personality would have remained underdeveloped had I not been able to find my ways in the school of life and become increasingly better at feeling comfortable with who I am and at ease with the limitations of my being.

Obviously, one shouldn't generalize from the above (biased) sample-of-one. However, I would not have brought up my personal experience if it had not been largely convergent with the findings of an analysis of the stories of the lifetime learning experience of hundreds of people from around the world (Y. L. Visser, J. Visser, 2000, October; J. Visser, Y. L. Visser, Amirault, Genge, & Miller, 2002, April; M. Visser, & J. Visser, 2003), covering a spectrum ranging from illiterate Aymara farmers in rural Bolivia to academics in Europe and the USA of different ages. That research, which started accidentally at another annual convention of the Association for Educational Communications and Technology (J. Visser, Berg, Burnett, & Y. L. Visser, 2000, February), shows a similar propensity in those whose learning stories were collected to situate themselves as learners in environments that include a wide choice of learning spaces beyond those formally designed for specific instructional purposes. The learning human being wanders among those various spaces and should be encouraged to do so. Part of the work that schools could usefully undertake would be to make their students aware of and conversant with that wide range of learning spaces to which they potentially have access.

It will be clear from the above that my answer to the question if online learners should be considered a subspecies among learners in general is a clear NO. 'Online learner' is at best an unhelpful concept and, as said, its use could encourage learners to adopt too narrow a mindset in considering their options.

### **There Are No Online Learners, but Learners Do Go Online**

Some learners spend most of their learning time offline and will occasionally complement their learning effort through online explorations. Other learners may, in a particular context, primarily be driven by instructional events afforded to them online, but they will undertake additional offline explorations as well. Yet others will have opted initially for a hybrid learning environment, including both online and offline experiences, but they would still venture beyond what is given to them, offline as well as online. The crux is that

intelligent learners, whatever their initial entry point into a particular learning effort, will continue to look around them, driven by their natural curiosity, to further enrich their learning experience both online and offline, in any way they consider useful, through all means at their disposal. I recognize that the above point of view clashes with some of the original core assumptions of the instructional design field. I am equally aware, though, that, over time, the field has grown to become more open to alternative views that attribute greater importance to the autonomous role played by the learner. Such an alternative perspective is relevant and important considering that change in human behavior is not merely a goal in the context of predetermined social or economic processes—such as to serve corporate interests—but may often relate to human needs and desires in much more complex, non-linear, ways, based on the long-term intricate interrelatedness of individual, communal and societal interests.

Dreyfus (2001) argues that learning by means of instruction develops according to the following seven stages: Novice; Advanced Beginner; Competence; Proficiency; Expertise; Mastery; and Practical Wisdom. He reasons that only the first three stages can adequately develop in the distance education mode. According to Dreyfus, reaching proficiency and expertise require “emotional, involved, embodied human beings” (p. 48), something that he fears the online environment is incapable of accommodating. Moreover, apprenticeship, which is necessary for the last two stages, calls for the physical presence of experts of flesh and blood.

I find Dreyfus’s (2001) seven-stage analysis of the learning-through-instruction process relevant and useful. I also agree with him that emotional embodied involvement on the part of both learners and those who help learners to learn is crucial in the instructional context, particularly if the learning effort is directed at reaching more than mere competence. However, Dreyfus’s conclusion that such emotional, involved and embodied presence is impossible in the distance education mode only holds if it is assumed that the various actors involved in what starts off as a distance education effort don’t move beyond their starting point. If, however, as I argued earlier in this section, those same actors—who are all learners in the true sense of the word, whether their

formal role in the instructional process qualifies them as such or as instructors or facilitators—continue their explorations beyond the conditions of their starting point, Dreyfus would be wrong. Then competent learners (and other actors in the learning environment) will always find opportunities in their wider environment to create such embodied presence to the extent that they find useful to them. This requires a kind of ‘learning intelligence’ that involves entrepreneurship; creativity; the ability to communicate personal goals and negotiate conditions to reach them; and the autonomous capacity to monitor one’s interactions with the world. In the wider context it requires ‘mentorship’ in the true sense of the word to be reinvented.

The term “mentor” derives from ancient Greek mythology. The story can be found in Homer’s *Odyssey*. *Μέντωρ*—as the name Mentor was written in Greek—was the trusted friend of Odysseus and the tutor of his son Telemachus. We are told in the *Odyssey*<sup>1</sup> that the goddess Athena, the daughter of Zeus, on several occasions, took on the form of Mentor to give advice to Telemachus and Odysseus. The term “mentor” has since become synonymous of the kind of personal relationship that typically seeks to benefit the person who is being mentored. The beauty of Homer’s account is, of course, that it tells us that you don’t have to be Mentor himself to perform his functions. One can assume the shape of Mentor, as Athena did.

In essence, mentoring is a role that can be seen to represent one of the best sides of human nature, the disposition to dedicate oneself to the well-being of other people. I believe, based on personal experience, that the proliferation of online communication has created propitious conditions for people around the globe to reconsider their options to serve as mentor and to benefit from mentoring.

### **A Changed Learning Landscape**

I reserved my second question to be dealt with last. “What are the key changes that we notice in today’s learning landscape and how can they be put into hierarchical order in terms of the importance of challenges posed to the learner?” (Question 2; J. Visser, in this dialogue).

I argued above that I consider the notion ‘online learner’ an irrelevant and unhelpful concept but that I recognize that the ‘online learning space’ is a relevant and important extra dimension of today’s learning landscape. It is there in addition to the various other spaces in which people traditionally used to learn. As explained, the online learning space may at times be the dominant dimension of the environment in which one learns; at times it may be complementary or supplementary. The fact that it is there, and that the tools through which it exists represent a certain level of technological sophistication, requires of today’s learners to be conversant with those tools and their various uses. Some of those uses may be culture sensitive, which adds a further challenge, considering that the online learning space is not restricted to a single culture.

However, I believe that the more relevant changes in the learning landscape that we are facing have to do with a change of emphasis in the purposes for which we learn. In other words, they have to do with the kind of problems we—and the world at large—face and the responsibilities we attribute to ourselves as actors in that problematized environment. Here I see the following changes:

- 1) Due to increased population pressure on our tiny planet with limited resources (six billion people in 2000; nine billion estimated for 2050), governing bodies as well as individual human beings face challenges regarding their day-to-day as well as long-term behavior that require a level of understanding and intelligence not required to the same extent of our immediate ancestors. The formal learning infrastructure (universities, schools, the media, etc.) have so far inadequately responded to the challenge to raise our consciousness and capacity to live in harmony with ourselves, our fellow human beings, the other species and our physical environment in general.
- 2) Our capacity to intervene in our environment has dramatically increased. The extent of the impact of what we do, or allow others to do, has outgrown our capacity to foresee the consequences of our action. Here too, we dramatically lag behind in fostering learning—and creating the environment that nurtures it—that elevates our awareness of planetary

responsibilities. Yet, the online learning environment is perhaps the opportunity *par excellence* to make important inroads in this area of concern.

- 3) Linked to the phenomena highlighted in the previous two points, the world of the 21<sup>st</sup> century is characterized by turbulent change and a high level of unpredictability. The current and future generations will have to live with such unpredictability. It requires a high level of insight in and control over one's own capacity to learn, to an increased extent at Level 4 referred to earlier in this paper, and to do so in a lifelong perspective. Learning to learn, in a conscious way, should therefore be a prime concern, starting at the level of raising infants and continuing to be a concern throughout life.

### **A Concluding Concern**

The above analysis of challenges that condition today's learning landscape contrasts sharply with how I perceive the current reality of academic life, both as regards students and faculty. The former are increasingly driven by pressure to obtain certificates, diplomas and degrees that give them access to jobs that may have little to do with what they actually learnt to obtain those tokens; the latter live under the pressure of complying with the exigencies of an increasingly complex university bureaucracy, including the various formalities related to the ritual of tenurization. Within that context, education is more and more being considered as a commodity, a perspective that degrades the provider of the commodity to the status of a grocery. The fact that the commodity can now be traded online has only exacerbated the situation. I believe this to be a dangerous development.

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## Endnotes

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<sup>1</sup> The full story can be found at <http://ibiblio.org/gutenberg/etext02/dyssy11b.txt>.