Towards a Conceptualization of Hybrid Educational Spaces (HES)

Alex Young Pedersen^{1[0000-0002-5965-4821]}

¹ Centre for Teaching Development and Digital Media Aarhus University, Jens Chr. Skous Vej 4, 8000 Aarhus C, Denmark alex@tdm.au.dk

Extended abstract

Learning spaces are often hybrid. Hybridity is closely related to historical developments within technology, politics and civil society. The paper address this shortly. Hybrid Educational Spaces (hereafter, HES) denote spaces that are emergent within a specific institutional setting. They are the structures that enable the field of Hybrid Education [16] and involve educational patterns supporting hybrid pedagogy [14] and new concepts of citizenship [20].

Technological developments are fuelling the global integration process [11]. In politics the promotion of free trade and processes of political integration has further integrated transactions across the globe. This in turn has prompted the emergence of a global civil society tackling issues such as climate change and economic inequality [8]. Developments are often ambiguous involving both positive and negative consequences [21]. E.g. educational technologies such as Learning Management Systems are both broadening the scope of potential participation and raising the stakes for participation by commercialization of education and ed-tech [3]. In this, students build on an hybrid base of experience that shapes their expectations and the construction of personhood [12]. Hybridity emerges as a reality in the classrooms of the world and underlie the shaping of identity [5]. The educational spaces are perforated by the surrounding society and the world at large. The ubiquitous combination of the digital and the physical in an increasingly interconnected and globalized world have become the social norm [4]. In other words, traditional educational spaces are being transformed along multiple dimensions giving rise to HES.

The paper argues that HES be distinguished from the Hybrid Learning Spaces in at least two ways which refer to theoretical and practical differences between 'education' and 'learning'. The differences highlight dimensions central to the understanding of HES. The paper discusses these dimensions and present a conceptual model of HES that may serve as a tool of reflection and give possible guidelines for the design.

Two theoretical differences are identified. Firstly, education as opposed to learning is fixed in time. It has a beginning and a predictable end. Education as such is an intersection in the process of learning [1]. Secondly, education is intentional in that it strives for some form of goal-attainment, level of competence or degree of knowledge broadly conceived whereas learning is essentially something that happens or emerges and it is situated and context-dependent [17]. Education can also be understood as

Copyright © 2020 for this paper by its authors. Use permitted under Creative Commons License Attribution 4.0 International (CC BY 4.0).

serving specific functions [6]. Not distinguishing between learning and education leads us to confuse a theory of pedagogy (teaching) with a theory of knowing (epistemology) [7]. Practical differences between learning and education refers to the fact that education is institutionalized and at the basic level mandatory in most countries. From a legal perspective education is both an important social right and at the same time an obligation because it is essential to the full membership of a community and to citizenship [18]. The institutional character of education distinguishes it from learning along certain dimensions or continuums which will be discussed in the paper. These are formal/informal, constructed/realistic, private/public and reality/virtuality.

Formal/informal: Education are bound to budget constraints and legal obligations. It is formalized along a chosen curriculum-mix [22] and are framed by historically emergent disciplinary norms constituting a 'disciplinary matrix' [15]. Education rely on formal requirements so creating HES comes with restraints in order to foster a combination of formal and informal social structures characterizing HES [9].

Constructed/Realistic: Educational institutions are bound to specific geographically fixed places. Here the real or realistic are mimicked to be able to fit into the pre-existing educational structures e.g. the textbook, constructed models, etc. HES with its emphasis on social learning prefers realistic settings and real-world problems [24] but 'realistic' has a broader connotation. Drawing on insights from Mathematics Education it means that the students are offered problem situations which they can actually imagine [23].

Private/public: In Arendt's tripartition between the private realm of the family, the public realm of the world and the social realm of the school education was understood as a politically determined temporary interposition from childhood to adulthood [2]. In education the children would have to be shielded from the public realm and viceversa in order to make possible the renewal of our common world. To expose oneself to the light of the public realm needs careful preparation. Eberly's 'protopublic' classroom activities are presented as an example [10]. Reality/Virtuality: HES denote situations where you are connected to public networks and where the distinction between the virtual and the real begins to blur in what Milgram & Kishino termed the 'reality-virtuality-continuum' [19, 23]. Hybrid learning is characterized by the use of technology, thus HES is positioned in the part of hybrid reality along the dimension from reality to virtuality [13]. The uses of IT and the affordances of the Internet are very central to HES because they to a large extent makes mobility along the other dimensions possible e.g. to establish more informal learning spaces, to offer imaginative support in problem solving or to merge the public and the private sphere.

To conceptualize HES the paper utilizes the dimensions mentioned above. The model is intended as a means for reflection and discussion of concrete designs. It may inform design only to the extent that any design of HES must consider these dimensions.

References

- 1. Arendt, H.: Between Past and Future. Eight Exercises in Political Thought. Penguin Books, Harmondsworth, U.K. (1954).
- 2. Arendt, H.: Reflections on Little Rock, (1959).

- Bates, A. W. T.: Technology, E-learning and Distance Education (2nd ed.). Routledge, London. (2005).
- 4. Bauman, Z.: Postmodernity and its Discontents. Polity Press, Cambridge, U.K. (1997).
- 5. Bhabha, H.K.: The Location of Culture. Routledge, New York, NY (1994).
- Biesta, G.J.J.: Good education in an age of measurement: On the need to reconnect with the question of purpose in education. *Educ. Assess. Eval. Account.* 21, 33–46 (2009). https://doi.org/10.1007/s11092-008-9064-9.
- 7. Bransford, J.D., Brown, A.L., Cocking, R.R.: How people learn: Brain, mind, experience, and school. National Academy Press, Washington, DC (2000).
- Castells, M.: The New Public Sphere: Global Civil Society, Communication Networks, and Global Governance. *Ann. Am. Acad. Pol. Soc. Sci.* 616, 78–93 (2008). https://doi.org/10.2307/25097995.
- Cook, J., Ley, T., Maier, R., Mor, Y., Santos, P., Lex, E., Dennerlein, S., Trattner, C., Holley, D.: Using the hybrid social learning network to explore concepts, practices, designs and smart services for networked professional learning. In: State-of-the-Art and Future Directions of Smart Learning. pp. 123–129. Springer, Heilberg, Germany (2016).
- Eberly, R.A.: Rhetoric and the Anti-Logos Doughball: Teaching Deliberating Bodies the Practices of Participatory Democracy. *Rhetor. Public Aff.* 5, 287–300 (2002). https://doi.org/10.1353/rap.2002.0027.
- Hayut, Y.: Containerization and the Load Center Concept. Econ. Geogr. 57, 160–176 (1981). https://doi.org/10.2307/144140
- 12. Kim, Y.Y.: Finding a "home" beyond culture: The emergence of intercultural personhood in the globalizing world. *Search Cult. Home Multicult. Soc.* 46, 3–12 (2015). https://doi.org/10.1016/j.ijintrel.2015.03.018.
- 13. Klimova, B.F., Kacetl, J.: Hybrid learning and its current role in the teaching of foreign languages. *Procedia-Soc. Behav. Sci.* 182, 477–481 (2015). https://doi.org/10.1016/j.sbspro.2015.04.830.
- 14. Kohls, C., Köppe, C., Pedersen, A.Y., Dalsgaard, C.: Outside In and Inside Out: New Hybrid Education Patterns. In: *Proceedings of the 23rd European Conference on Pattern Languages of Programs.* pp. 1–9. ACM, New York, NY, USA (2018). https://doi.org/10.1145/3282308.3282330.
- 15. Kuhn, T.: *The Structure of Scientific Revolutions*. The University of Chicago Press, Chicago, Il (1962).
- 16. Köppe, C., Nørgård, R. T., & Pedersen, A. Y. (2017). Towards a Pattern Language for Hybrid Education. *Proceedings of the VikingPLoP 2017 Conference on Pattern Languages of Program*, 1–17. https://doi.org/10.1145/3158491.3158504
- 17. Lave, J., Wenger, E.: Situated Learning. Legitimate Peripheral Participation. Cambridge University Press, Cambridge, U.K. (1991).
- Marshall, T.H.: Citizenship and Social Class. Cambridge University Press, Cambridge, U.K. (1950).
- 19. Milgram, P., Kishino, F.: A taxonomy of mixed reality visual displays. *IEICE Trans. Inf. Syst.* 77-D, 1321–1329 (1994).
- 20. Pedersen, A.Y., Nørgaard, R.T., Köppe, C.: Patterns of Inclusion: Fostering Digital Citizenship through Hybrid Education. *Educ. Technol. Soc.* 21, 225–236 (2018).
- Samuels, R.: Auto-Modernity after Postmodernism: Autonomy and Automation in Culture, Technology, and Education. In: McPherson. Tara (ed.) *Digital Youth, Innovation, and the Unexpected*. pp. 219–240. The MIT Press, Cambridge, MA (2008).
- van den Akker, J.: Curriculum Design Research. In: Plomp, T. and Nieveen, N. (eds.)
 An Introduction to Educational Design Research. pp. 37–50. SLO, Enschede, The Netherlands (2010).

- 23. Van den Heuvel-Panhuizen, M., Drijvers, P.: Realistic Mathematics Education. In: Lerman, S. (ed.) *Encyclopedia of Mathematics Education*. pp. 521–525. Springer Science+Business Media, Dordrecht (2014).
- Science+Business Media, Dordrecht (2014).

 24. Wals, A. E. J., Lans, T., & Kupper, H. (2012). Blurring the boundaries between vocational education, business and research in the agri-food domain. *Journal of Vocational Education* & *Training*, 64(1), 3–23. https://doi.org/10.1080/13636820.2011.586129