

8 Further Human–Computer Interaction (afb21)

Facebook founder Mark Zuckerberg, after changing the company name to Meta, has announced his intention to increase the market for Oculus VR headsets by replacing many current user interfaces with the “Metaverse” — a virtual reality 3D rendering. In this question, you are asked to imagine that you are responsible for designing a new interactive university, implemented in the Metaverse, called the Metaversity.

- (a) In the Further HCI course, we argue that complex interaction spaces are like programming languages, and that design of such spaces can draw on principles of programming language design. Briefly describe a design idea for the VR Metaversity, and then suggest *three* aspects of the Metaversity that might be related to aspects of a programming language, explaining for each one the nature of the analogy. [8 marks]
- (b) For *each* of these three aspects, describe how it might be represented visually, making reference to principles of correspondence in theories of visual representation. [6 marks]
- (c) For *each* of these three aspects, describe a design trade-off that should be considered in terms of the Cognitive Dimensions of Notations. [6 marks]