Enabling people to harness and control EDM for lifelong, life-wide learning

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ABSTRACT

There has been an explosion of digital learning sensors. Some are in bespoke learning applications. But many more are in the digital tools people use in every aspect of their lives. This paper introduces a user-centred view of EDM for lifelong, life-wide learning. That includes formal education, but goes beyond it to the complex, multi-faceted and ill-defined learning in our broader lives. This is the learning that takes decades and is critical for aspects as diverse as health and wellness, responsible citizenship or working effectively with other people.

The paper begins by asking who the users for EDM are, what their different needs are, and why the answers matter. It then reviews a series of case studies for learning group-work skills. These illustrate the analysis that follows. This starts with the issues for personal data sensing for learning over the long term, in many contexts and aspects of life. Then it considers middleware, a topic rarely discussed in EDM research. Finally, it considers the all important user interfaces for: user control; human-in-the-loop EDM; and learning, particularly, self-monitoring, reflection, planning and broader metacognitive activity. This paper takes a highly critical assessment of over 20 years of my research, from the perspective of user-centred EDM. Building upon that critique, it summarises major mistakes made and lessons learnt and then presents a research agenda and vision.