Most adults and adolescents in developed countries now own mobile phones and media devices, and for many people in developing countries a mobile phone can offer the only means of sending long distance messages. In a parallel development to the spread of personal technology, since the early 1980s schools, colleges and universities have experimented with handheld technology for learning, including classroom response systems, data probes, and handheld writing tools. Universities allow students to bring laptop computers to lectures and some schools are now providing pupils with Personal Digital Assistants and tablet computers. As personal mobile technologies for learning become more widespread, studies are starting to show evidence of the value of incorporating mobile devices in teaching and learning (McFarlane, Triggs and Yee 2008; p.7) and also substantial issues, including conflicts between informal learning with personal devices and traditional classroom education (Sharples 2007). Children are developing new skills and literacies enabled by mobile devices, such as SMS texting, moblogging (writing diaries and weblogs on mobile devices) and mobile video creation. A new generation of location-aware mobile phones will offer further possibilities, of education services and educational media matched to the learner’s context and interests.

The complexity of these interactions between learners, educational settings and mobile technologies challenges the conventional view of education as imparting knowledge in a fixed location, inviting a more expansive possibility of ubiquitous learning supported by personal media communicators. Our aim is to propose a theory of learning for a society of ever-increasing personal and social mobility. It encompasses both learning supported by mobile devices such as cellular (mobile) phones, portable computers and personal audio players, and also learning in an era characterised by mobility of people and knowledge (Rheingold 2002) where the technology may be embedded in fixed objects such as ‘walk up and use’ information terminals. For brevity we shall refer to these together as mobile learning.

The focus of our discussion is not the learner, nor their technology, but the communicative interaction between these to advance knowing. At a first level of
analysis we shall make no distinction between people and technology, but explore the dynamic system that comprises people and technology in continual flux. We shall show how this leads to learning as a conversational process of becoming informed about each other’s ‘informings’, to cognition as diffused amongst interactions and reciprocally constructed conversations, and context not as a fixed shell surrounding the learner, but as a construct that is shaped by continuously negotiated dialogue between people and technology. We shall indicate how this allows us to understand the ecologies of learning in a world of networked mobility. It also leads to intrinsic contradictions, relating to the ontological status of technology in learning and ownership of the means of communication. We suggest that we can only begin to resolve these contradictions by understanding the relationship between traditional and mobile learning, and by creating a society in which learning as a global conversation can be given a central role in our system of education.

**Learning as Conversation**

Central to our definition is the claim that conversation is the driving process of learning. It is the means by which we negotiate differences, understand each other’s experiences and form temporarily stable interpretations of the world.

The description we give here of learning as conversation is primarily based on the work of Gordon Pask (Pask 1976). Conversation is seen by Pask as the fundamental process of learning, the means by which people become informed about each other’s ‘informings’ (what Pask described as the “coordination of coordinations of coordinations”) (Scott 2001). To constitute a ‘conversation’, the learner must be able to formulate a description of himself and his actions, explore and extend that description and carry forward the understanding to a future activity. In order to learn, a person or system must be able to converse with itself and others about what it knows.

Central to these learning conversations is the need to externalise understanding. To be able to engage in a productive conversation, all parties need access to a common external representation of the subject matter (an agreed terminology, and also notes, concept maps or other learning resources) that allows them to identify and discuss topics.

More recently, Pask’s Conversation Theory has been applied by Laurillard (2002) and by Sharples (2003) to examine the processes of learning with technology. Laurillard proposes that for learning to succeed, the student must: