

# Mobile Communications Technologies for Young Adult Learning and Skills Development (m-learning) IST-2000-25270

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## Abstract

*m-learning, a pan-European research and development programme supported by the EC, attempts to encourage young adults to participate in learning via the use of mobile phones and other handheld devices.*

*Keywords: mobile phones, learning, m-learning, e-learning, basic skills, literacy, numeracy*

## 1. The Motivation and Aims of m-learning

In many European countries we are failing to deliver basic literacy and numeracy skills to many of our young people. The International Adult Literacy Strategy [1] found substantial literacy problems in all the countries studied. Many, including the UK, had rates of functional illiteracy of 20% or more and worse innumeracy levels. At the same time many young adults are not participating in post-compulsory education. However most young adults have a mobile phone and perhaps their enthusiasm for this device can be used to engage them in some small learning activities that may lead to later more substantial and sustained involvement in learning.

## 2. The Programme

The prototype products and services being developed by m-learning are designed to capture the interest of young adults (16 to 24) not currently in education or training. Learning themes focus on subjects of interest to young adults, e.g. football and music, and the modules include activities designed to develop aspects of literacy and numeracy. The target audience includes young adults who are unemployed, under-employed or homeless.

Research activities within the programme include:

- investigating of the features of current and forecast devices (including mobile phones, palm and pocket PCs) as well as the capabilities of current and predicted communications networks

- researching the motivation, preferences and behaviour of young adult users of mobile phones and handheld electronic games
- researching the needs and experiences of young people with sight or hearing difficulties
- reviewing current and emerging standards and specifications for learning materials development and meta-tagging to ensure interoperability
- monitoring research into possible health hazards associated with excessive use of mobile phones

Infrastructure includes a Learning Management System and a microportal interface layer is under development. These facilitate access to materials and services from a variety of mobile and other devices. For devices with little multimedia functionality, and for learners with sensory difficulties, SMS, speech-to-text and text-to-speech facilities are being developed. Support for collaborative learning and peer-to-peer interaction is being developed. m-learning development is an iterative process informed by work with groups of young adults.

Design of the prototype learning materials draws on the experience of partners in designing modular multimedia learning materials and is informed by the research. An intelligent tutor system is being developed which will help identify learners' needs and learning preferences and match these to available materials. User trials involving young adults from the target audience will take place in the UK and Italy in 2003/04.

The m-learning partners are the Learning and Skills Development Agency, Cambridge Training and Development and Ultralab at APU, in the UK plus the Centre of Research in Pure and Applied Mathematics (CRMPA) at the University of Salerno in Italy and Lecando in Sweden.

## 3. References

[1] International Adult Literacy Survey (IALS), *Literacy Skills for the Knowledge Society*, IALS, 1997