## Open Apps for opening up school education
### Giles Pepler

*The development of open apps offers a route towards unlocking the untapped potential of school education and realising the potential of Open Educational Resources.*

**Preamble:** This short paper draws on the inspirational views of David Broster[1] in his Vision Paper for Lifelong Learning. The scenario he presents is equally applicable to school education as the first stage of lifelong learning; this paper embraces his vision, develops one of his main ideas and examines the barriers and enablers that need to be addressed.

**Pedagogy has changed only slowly and technology has not transformed school education as much as its enthusiasts would like to suppose.** Most pedagogy has changed slowly, if at all, in the past fifty years. When I started training as a secondary school English teacher, the inspirational text book I was directed to was *The Disappearing Dais*[2]. More than 45 years later, the dais has scarcely disappeared from many secondary school classrooms. Many of them are still laid out in the same way as the beautifully preserved lecture rooms at the Universidad de Salamanca, though they may be less ornate and austere. Whilst group work and project work is more common than it was (though there are moves by some Ministries to limit this), the flipped classroom remains the province of enthusiasts and shows no real signs of becoming part of the pedagogical mainstream. In spite of developments in teacher training, many teachers still perceive themselves as the dispensers of knowledge, more than the facilitators of curiosity and creativity, intimidated by the awareness that their charges, in primary as well as secondary education, may well be more conversant with and skilled in the use of mobile and web technology. Whilst there has been considerable development of OER in higher education, there is little evidence so far from the POERUP project[3] of extensive use in school education and this also appears true for the virtual schools described in VISCED[4].

**There remains a disconnect between conventional schools and their curriculum and the demands of external stakeholders.** In many European countries there is a continuing divide between the prestige of 'academic' education and the lower status of 'vocational' education and training. Inertia in the curriculum is fuelled by the conflicting demands of business and industry and parental pressure. Business leaders often argue that schools and colleges do not produce appropriately literate and numerate young people who are 'fit for work'; yet the very personal attributes they profess to value, such as teamwork and creative collaboration, are constrained by the demands for individual assessment and conventional accreditation. Parents tend to remember their own primary and secondary education - often with somewhat rose-tinted spectacles - and do not readily support the development of non-traditional curricula.

[1] Broster, D. 2013 Reflections on Open Education Interview , Amsterdam 28th March 2030. Retrieved from http://blogs.ec.europa.eu/openeducation2030/files/2013/04/Broster-OE2030-LLL.pdf, 25th April 2013

[2] Whitehead, E. 1966 The Disappearing Dais

[3] see http://www.poerup.info/research.html

[4] see www.virtualschoolsandcolleges.info/

Their offspring may make extensive use of mobile technology and the web for social purposes and gaming, but this is perceived as separate from, and sometimes inimical to, the demands of education.

**Young people make extensive and increasingly sophisticated use of mobile technology.** In many European countries the majority of primary age children own a mobile phone, of at least 3G capacity and for some using 4G technology. They use their phones extensively for social and pleasure purposes, whether texting, using free apps to access social networking sites and games and taking photographs and transmitting these - again using free apps. They may also have tablets, and as the latest generation of tablets becomes lighter and more compact, these are equally mobile as phones. Whilst the camera function of mobile devices has been increasingly used in primary and secondary schools, the increasing number of free apps has been relatively little exploited in an educational context. The largest mobile learning development project in the UK (and probably in Europe) - MoLeNET[5] - operated in further education colleges, but its catalytic effects are equally applicable in primary and secondary school contexts. This demonstrated the potential educational impact of mobile technology some ten years ago and the extent to which young people could use their mobile devices not just for social, but also for creative educational purposes.

The scenario described by David Broster envisages the development of three new tools, each with different functionality, but between them creating the conditions for a new educational paradigm. Whether accompanied by advertising or not, tools such as these are likely to be part of the technology landscape well before 2030. If the tools are there as accessible apps, primary and secondary age pupils will use them.

**What will make policy makers engage with the potential of open apps and mobile technology?** The pressures of conformity and inertia remain strong. However, if the educational outcomes of pupils embracing open apps - and using them to access OER - demonstrate that dramatic learning gains are the norm, then policy makers in individual countries will find it impossible to ignore this. The economic arguments for increased levels of educational attainment across Europe will be stronger than ever, given the expected growth of the tiger economies of emerging world economic powers such as South Korea, India and Brazil - let alone China. If pedagogical arguments alone are insufficient - and the history of the past 50 years suggests this is likely to be the case - it is probable that the economic imperatives of survival will tip the balance towards the development of a new educational paradigm.

There is currently a growing trend in several EU countries to open up the regulation of schools to private sector involvement and a range of new organisational models are emerging - free schools in Sweden, academies in England and a small, but growing number of virtual schools across Europe. Whatever one may think of the politics of creating a schools 'market', the emergence of new players and private sector involvement is likely to create increased pressures for change, which will spill over into delivery models and eventually return to impact on the policy makers who have facilitated this growth of diversity.

**Towards the Handheld Primary School.** In his recent vision paper for UNESCO[6], Professor Paul Bacsich presents the Handheld Primary School as one of five archetypes for future delivery of learning. The Handheld Primary is characterised by the pervasive nature of mobile devices: each pupil gets a handheld device (with age-related capabilities) and teaching and learning are focussed around these. With the use of open apps and access to a wide range of

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[5]   see www.m-learning.org

[6]   Bacsich, P. 2012. Alternative Models of Education Delivery. Retrieved from
     http://iite.unesco.org/pics/publications/en/files/3214709.pdf on 25th April 2013

OER, the nature of teaching and the relationships between teacher and learner are changed. The model is equally appropriate for provision that is fully funded by the state, or provided through low-cost fee paying schools. The Handheld Primary provides a focus for socialising children into appropriate professional use of technology and open apps provide the platform for developing creativity and curiosity, creating demand for OER and raising levels of attainment.

If this archetype can be effective at primary level, then why not at secondary level too?

**Concluding words**. The second half of the twentieth century and the first decade of the twenty-first have been characterised in Europe by hand-wringing about the limitations of educational attainment by school pupils, false dawns through perceived elixirs (not least that technology alone could be transformative), and relatively little real change in pedagogy. The convergence of the development of open apps, OER and economic imperatives may just be the cocktail that finally produces the step change and paradigm shift that we urgently need to make school education creative, liberating and fit for the needs of both the economy and society.