

Towards a Digital Enlightenment: knowledge reproduction and creation in the post-Internet University. (0264)

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Part 1: The argument from history

The historical emergence of the University has not been a simple logical process. We may point to landmarks (e.g. SRHE, 2010) that represent the formation of Universities as we understand and recognise them but their evolution has been more convoluted and diverse than that model suggests (McNeely & Wolverton, 2008).

However, the very notion of 'learning' is problematic and increasingly so in modern times. It is only in recent centuries, perhaps the last five in the European context that Universities have emerged as centres of a particular approach to learning, an approach in which secularism and academic freedom have developed as key principles of scholarship, research and teaching. Western European models of scholarship do not, on the whole, require academics to conform to orthodoxies or to repeat a party line but instead, to use the motto of the Royal Society, to "take nobody's word for it" (*Nullius in verba*).

Of course, even today these principles are contested and in the newly forming global context for Higher Education they cannot be taken for granted. A recent expulsion from the Royal Society for arguing that creationism is a valid world view rather than a misconception is deeply ironic, but also presents a limiting case for the idea that we are truly free to think (BBC, 2008). Events such as 'Climategate' provoke debate about scientific method and probity and raise fundamental questions about the accountability of research conducted within the semi-permeable walls of the University (THE, 2010). And the very value of scientific knowledge as an evidential base for informing and guiding social policy has been considerably weakened by such affairs as the sacking of a government science adviser over disagreements on the evaluation of the harmful effects of cannabis (BBC, 2009)

Yes those great breakthroughs that we may broadly bundle into the historical category of the 'Scientific Revolution' were mostly achieved by outsiders and amateurs without the benefit of paid employment to pursue their interests (Schiffer, 2003). We might say that science emerged in a fashion somewhat similar to Wikipedia! We can now understand the Scientific Revolution as a historical transformation brought about not by paid professional academics but by an outsider network of interested thinkers (low-born as well as high-born, mostly men, but some women) exploiting improved written and printed communication systems across Europe. The role of the University in that great period of discovery that began in the Renaissance and culminates in the 18th Century Enlightenment was thus relatively minor, and perhaps only really emerges in its modern form during the late 18th century (McNeely & Wolverton, 2008).

Part 2: The breakdown of the Higher Education Hegemony

We have few, if any, guarantees that the University as we know it will remain the centre of teaching, learning, scholarship and research. Could the University once again find itself peripheral to, even an obstacle to, cultural and scientific regeneration? History illustrates that the University does not have a monopoly on learning and has before been on the sidelines of discovery and invention. It has, also, often been argued that the formally constituted education system, including our modern University is antithetical to learning (see e.g. Illich, 1971).

The University and the context in which it operates are changing. In the UK since 1992 there are many more of them. They are asked to do more for less, must meet the new demands of widening participation and they must thrive when access to information and the interpretation of information has transcended many of their once traditional, pre-Internet territorialities. According to Bradwell (2009) the role of the University is seriously threatened by these contextual changes: "The University is becoming defined by its function ... not its form." (p8)

The University is profoundly challenged by shifts in the manner and medium of knowledge acquisition and dissemination. Online, virtual meeting spaces are becoming serious alternatives to the physical space of the seminar and lecture hall (complemented by huge online collections of course materials); vast online full-text

bibliographic databases positively supplement, if not replace, the physical library; online communication tools provide high fidelity synchronous and asynchronous conversations; the freedom to self-publish to large audiences with shared interests – all these are but some of the ways in which the established hegemony of the University is supplanted by the post-Internet digital environment (Educause, 2010). It has never been easier for the independent thinker, the amateur, the unattached scholar to participate in and contribute to knowledge and research.

Part 3: The Challenge of the Masses

Thus the University as we know it is threatened by a weakening of some historic assumptions. Of course, the effects of this threat are unequal. A historically well-established established core of UK institutions (i.e. the 'Russell Group') is largely untouched by the diverting effects of digitisation or the political drive to widen the higher education franchise. But for the majority of higher education institutions, particularly those new ones that emerged post-1992 the threat may be ever more acute.

However, the threat is not entirely one of access to technologies for the access itself has to be taken up by ordinary people if change is to be realised. One role for higher education is to tackle this problem of 'cultural capital'. These issues may be illustrated by reference to some indicative features of the South East Wales context:

- second lowest employment rates in Wales; but near average economic inactivity rates;
- highest proportions in Wales of population aged under 16 and of working age, together with the highest numbers of births and lowest numbers of deaths per 1,000 population;
- highest percentages of mainstream school pupils receiving free school meals in Wales; low attainment rates and high unauthorised and overall absence rates at secondary school;
- joint second highest use of NHS dental services in Wales; and lowest number of road accidents reported to the police per 10,000 of population in Wales.
(Statistical Directorate, 2009)

Furthermore, although access to the Internet in Wales is good, take up remains relatively low among low-income groups (Winckler, 2009).

It is this context that the challenge to the University needs to be understood. Can it respond effectively to the challenge presented by serious socio-economic deprivation and exclusion? This paper will therefore explore this specific problem in more detail in relation to the Heads of the Valleys initiative, a Welsh government funded project to alleviate the socio-economic deprivation of the region through provision of a new kind of higher education model (University of Wales Newport, 2010). Within that initiative we need to explore not only the cultural problem of raising aspirations, but also more fundamental issues such as what basic knowledge and skills are required to participate in the digital economy of knowledge? Should low levels of literacy be a barrier to entry? Can digital technology restore a more relevant audio-visual style of learning to a population trapped in a cycle of educational disadvantage?

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