

Educators in universities need to be researchers rather than priests of cargo cults

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Abstract

The concept of cargo cults, although hotly disputed, was originally developed to describe the effects of interfacing cultures which possessed very different technologies and methods of production. The concept has previously been used to describe in a figurative manner a distinction between science and pseudoscience, the latter being typified by not following a method of scientific integrity, including scrutiny of claims. Here the analogy is adapted to justify a claim that educators at universities need to be actively involved in research in order to demonstrate to their students that the knowledge which is expected, accepted, and respected in universities is subject to constant debate, is often ambiguous, and is never completed.

Keywords: cargo cult; research; epistemology; pseudoscience; internationalisation of higher education.

The outline for this paper began to take shape when in conversations with professors at two different universities, on two separate occasions in a matter of just a few weeks, the concept of cargo cults was used to describe the links between teaching and researching. The phenomena of cargo cults had been used figuratively more than 30 years ago by Feynman (1974) to describe a distinction between science and what he labelled pseudoscience, and his article will be glossed below. Here, however, the analogy with cargo cults is going to be used for a different purpose: to support a claim that educators at universities, including teachers and educational developers, should themselves be actively involved in research in order to be able to demonstrate to their students the kind of knowledge which is the very stuff of university life. Knowledge in the university context is characterised by constant refinement and change, it is produced by ongoing research

rather than being a received and completed product, hence educators should themselves be active researchers and should induct students to researching processes. The consequence of this is to encourage students themselves to become learners-as-researchers (Healey and Jenkins, 2009).

The concept of cargo cults (New World Encyclopedia contributors, 2008) was developed to describe behaviours which emerged in several places, particularly in Oceania, at a time of early contact between different cultures. At the time of this contact the members of one culture relied on exploiting resources in their immediate environment to craft their technology. The items which were made, including buildings, canoes, baskets, clothing, fishing equipment, mats, musical instruments, and utensils such as pots, were produced from easily available materials including wood of various kinds (applying an encyclopaedic knowledge of which wood was most suitable for any specific purpose), clay, shells, and various fibres. Of equal significance was the public nature of the acts of production of these goods: canoes, houses, pots and so on were openly made as part of observable daily life, hence the origin of these artefacts could be seen clearly. Within the community some people were acknowledged to be experts in certain tasks, but in general the technologies used were known to all and accessible to all. In contrast the goods brought in by outsiders – most notably goods such as the airplanes used by the American forces during the Second World War – were not only made of materials which were not immediately recognisable, but the technological processes which had contributed to their production were neither visible nor easily imaginable. A deeper and more complex analysis of what have been called cargo cults challenges this description (Kaplan, 1995) and this critique will be returned to later, but for the purposes of introducing the analogy this simple description will suffice.

According to the originators of the concept of cargo cults, the new goods must have seemed to those observing them for the first time to have come from a mysterious source. The goods were desirable and appeared to be freely available to the outsiders, so various cargo cults then emerged as people sought to unlock the secrets of access to these goods; access which was attempted by imitating the observable behaviour of the outsiders which seemingly had made them fit to receive the fruits of cargo. This included marching and drilling with bamboo rifles in imitation of the American forces, construction of airstrips by clearing jungle, and the creation of various rituals in imitation of Christian rites.

Feynman's article, initially a speech given at Caltech but reproduced many times since then, describes how science emerged from earlier magical understandings of the workings of the world via a process of eliminating those ideas which could not be substantiated. True science is associated with scientific integrity, of reporting and publishing both what did not work as well as the results you had hoped for: yet despite this Feynman described being overwhelmed by the volume of beliefs which continued to be held about things which had not been proven, for example, concerning unidentified flying objects. Feynman also described how unproven beliefs, which he labelled witchdoctor remedies, influenced mainstream activities, using as examples theories concerning teaching reading skills to children, and experimental methods in the treatment of criminals: 'we obviously have made no progress – lots of theory, but no progress' (Feynman, 1974, p.10).

The author's primary interest is linked to researching the internationalisation of higher education, and the interfacing of students from one culture of learning with the expectations of institutions of another culture. It is true that there are a growing number of universities which claim to be transforming themselves into fully internationalised institutions, and which report how they have set out to celebrate a diversity of learning approaches. But even this internationalised stance should itself be seen as a description of one specific culture of learning, which itself involves a set of expectations about what constitutes knowledge and hence what are appropriate behaviours. Indeed it would be difficult to conceive of a university which does not have a firmly rooted stance about the nature of knowledge and hence expected patterns and sets of behaviours of learners and teachers.

It is equally possible to apply this argument beyond the topic of internationalisation, as this issue of addressing students' expectations concerning the nature of learning relates to all newcomers entering universities. In order to assist students in their quest to make sense of the expectations of university life it is necessary to link the observable conventions, for example, the behaviours required in seminar discussions or the expected formats of different forms of assessments, to deeper understandings of just what knowledge is taken to be within this setting. Hence it can be argued that for all students previously immersed in the procedures of secondary education, the move into higher education involves encountering a new culture of learning just as challenging as it is for those moving from one country to another.

Within the UK, by investigating the 'The framework for higher education qualifications in England, Wales and Northern Ireland' (QAA, 2008) it is possible to see that rather than just being concerned with **standards**, which is how the QAA describes the framework, it can equally be seen as a set of descriptions of a specific **epistemology**; a description of what constitutes legitimate knowledge in universities, what are the appropriate behaviours in establishing and extending that knowledge, and what are the various roles and behaviours expected in these settings. According to this framework, what is expected, accepted, and respected in universities includes systematic understanding of concepts and topics students are studying, with a specific mention of ideas and current research at the forefront of the discipline. Yet beyond this students also need to demonstrate 'an appreciation of the uncertainty, ambiguity and limits of knowledge' (QAA, 2008, p.19). The framework then describes how holders of university degrees should be able to use and apply their learning, for example to extend their knowledge and to critically evaluate arguments, and to deal with incomplete data. Three of the most salient features emerging from this understanding of knowledge are: it lacks the security of agreed and established facts (it is limited, it has **ambiguity** and **uncertainty**); it is characterised by change (it has a **forefront**, it is amended by **current research**); and it is contested, as arguments must be made and critically evaluated. This, then, is a description of knowledge as a process which students need to be engaged with, rather than as a product, ready-made which arrives from elsewhere.

This understanding of knowledge, lacking the security of agreed facts and being characterised by change and contestability, can be contrasted with other understandings which figure knowledge as concerning a body of established facts, a canon of fixed items to be recalled and which have been approved by the authority of appearing in textbooks. Such a view could be seen to be restricted to the starting place of the description in the QAA framework: 'a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge' (QAA, 2008, p.18), before the descriptors move on to deeper aspects.

Earlier it was pointed out that it is important to distinguish between objects which appear as finished articles and those where the processes of production are observable, or at least imaginable. To link this analogy back to the argument being made here; for students to appreciate the evolving, disputed, and often tenuous claims of competing theories and models in their topic area, for them to recognise that critical evaluation rather than

uncritical recall is the expected behaviour in university settings, then they need to be in situations where knowledge is being created in an observable way within their community (what was described earlier as 'the public nature of the acts of production'), rather than to see knowledge as something concrete and complete, appearing from elsewhere in the sanctioned form of text books. Although it is often pointed out that for most people there are things which they accept without fully understanding, for example, the inner workings of computers remain unknown to many users, such workings are imaginable technologies rather than mysteries, so computers are not held to be of magical origin.

Earlier this article presented a rather naïve view of cargo cults, but it should be seen that this view is – as with all topics worthy of study at university – contested and debated: critical thinkers and post-colonial theorists now dismiss the whole concept as a western projection of primitiveness on non-European cultures. In a similar way this article and Feynman's article both adapt the concept, but each uses it to create different analogies; so the concept remains in currency, but it is characterised by the uncertainty and ambiguity described earlier, tenuously held, to be re-examined constantly. This, it could be argued, is what distinguishes a university from earlier levels of education, and hence what should distinguish a university educator from a school teacher.

There is no doubt that all people involved in education at all levels should engage in reflective practice, in continuing personal development, and in various degrees of action research (McNiff, 2002), as this is essential for ongoing professional development and personal growth. In universities, however, the nature of the knowledge which is being dealt with on a daily basis means that academics need to engage with the process – the debates, disputes, and uncertainties – of knowledge creation within their subject areas in order to allow their students to see at first hand the status of such knowledge: Feynman's criticism of pseudoscience was a criticism of the lack of the critical process rather than of the truth value of the claims being made. University educators need to be able to describe their ongoing research to their students, to map the development of their own thinking. Learning developers are increasingly able to create the forums for technology enhanced learning programmes where participation in the process of knowledge creation is facilitated, for example, via webinars and social networking using virtual learning environments, and in this way presentations which are given at conferences can also be made available to students. Increasingly students are themselves being called upon to carry out research: 'the task now is to reinvent or reinvigorate the curriculum to ensure that

all undergraduate students in all higher education institutions should experience learning through and about research and inquiry' (Healey and Jenkins, 2009, p.6). In these ways knowledge should be seen as something being created here and now, within this community, rather than being a received product from unknown sources. Hence the title of this article: university educators need to be researchers rather than priests of cargo cults.

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