EDUCATION AND COMPETENCE - AN EDGE IN TRANSITION?

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ABSTRACT

We explore how the competence edge that tertiary education used to provide, may be getting blunt and challenged by self-study and practice-based training. Online educational resources (OERs) provide easy access to training material for those who know how to find and use it. Combined with settings in which to apply the skills and knowledge thus acquired, OERs can appear as an attractive alternative even to those who have the alternative of attending prestige university programs. Relying on interviews and discussions with young people on the traditional university path, those on the alternative path, and with people of different ages with a university degree, we assess the viability of a major shift in favour of the alternative path, and management implications.

Keywords: Organisational and/or personal learning, thinking outside the square, flexibility, instability, innovation in managing people
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AN EDGE GONE BLUNT?
I attended a birthday party. At one end of the table, relatives and middle-aged friends. At the other, the friends of the 23-year-old celebrant. At the first end, people held Masters, and some held research degrees. They were architects, engineers, managers and consultants. At the other end, one had a couple of Bachelor’s and was finishing his MBA. He does not really know what he will do after finishing. The others were working. As managers, designers, security experts, IT consultants, etc. And they neither had, nor were about to acquire, university degrees.

This is an observation in 2013 in an upper-middle-class suburb of Stockholm, Sweden. It takes place in an age when governments around the globe are typically aiming for tertiary-education levels of at least 50% of the population. In Sweden, like in Australia, almost half the young population go through tertiary education, while only around a third of the now middle-aged and older have done so (OECD, 2013). We also know that background, including social class, network of important others, previous educational experience and ethnicity affect the view of desirability of tertiary education (Connor, Burton, Pearson, Pollard & Regan, 1999). Thus, there would have been reason to believe that the distribution of tertiary education along the table would have been different, with a higher tertiary-education density at the young than the older end. Or at least, given this particular sample of older people, that the norm among the younger ones would have been to attend university.

Is this a freak observation, or could it be part of a trend with implications for managers and for young people preparing to enter the job market? Is the edge, which tertiary education used to afford, now being blunted? Is competence today no longer strongly connected with university education? Or does the much-discussed proliferation of online educational resources (OERs) offer a viable alternative to those who are more interested in competence than in degrees? These are issues that we explore in this text.

The paper is organised as follows. First, we look at the development of tertiary education in this age of mass universities. We then give an account of the range of available OERs. Next, we briefly present our sources of data, followed by the accounts of education and competence that we have gathered. Finally, we discuss the possible transformation of the edge of education.
THE MASS UNIVERSITY – FROM EDUCATION TO DEGREE PRODUCTION?

Wilhelm von Humboldt dreamed of a university system that would make it possible for students to explore and learn:

Just as primary instruction makes the teacher possible, so he renders himself dispensable through schooling at the secondary level. The university teacher is thus no longer a teacher and the student is no longer a pupil. Instead the student conducts research on his own behalf and the professor supervises his research and supports him in it. Because learning at university level places the student in a position to apprehend the unity of scholarly enquiry and thereby lays claim to his creative powers.

Humboldt as quoted by Clark (2007), p. 333

Such a university would prepare its students well for the challenges of keeping up to date in a developing and changing society, where lifelong learning is advanced as a necessity, not just an intellectual ideal. On its route to the present mass-education institutions that process up to two thirds of the younger generations (South Korea) and on OECD average 40% (OECD 2013, p. 26), such ideals are challenged by both supply-side realities and demand-side aspirations. When Bourdieu and Passeron (1977) took a critical stance towards the institutions of higher education, especially the top ones, universities were conserving a social structure, rather than actually fulfilling the democratising dreams of mass education. They claimed that the universities had become symbols of merit, where the children of the powerful would attend and thus be singled out to become powerful in turn, Criticism of another kind has been voiced by, for example, Peschardt (2013), comparing the mass university education she knew from Australia with the more personalised style she met at a US, high-status university. Many of the 113 comments to her article on The Sydney Morning Herald website attested to her assessment of the current status at mass-education institutions, and a number of them pointed out practicalities and incentives that lead to it.

However, these different views share the idea that higher education should have student learning as its goal. Candy, Crebert, & O’leary, (1994) belong to those who, in Humboldt’s footsteps, argue that university education should serve as a facilitator of the lifelong learning required in the modern society. Whether “learning-to-learn” is generally reflected in what students expect to gain from a university education is another matter. Eighty years ago, the answers available to Corey (1936) on what students sought from tertiary education, was on the line of ”to get an education,” ”to become educated,” or “to advance in learning.” (p. 207). However, more recent, descriptive research is divided
on this point. Meyer (2008) argues that decisions to go to university often reflect conforming non-decisions rather than the outcome of a conscious weighing of pros and cons where actual learning outcomes are considered. This is consonant with the critique voiced by Bourdieu & Passeron (1977), that enrolment at tertiary education institutions reinforces existing cultural and social inequalities, since those close to the top of society, already rich in cultural capital, are much more probable to enter university (and especially the prestigious ones) than are those low on the power and status ladder of society. This they view as problematic, since they hold that education is an important asset in retaining or obtaining status and power. Twenty years later, Connor et al. (1999) found that UK students close to the end of secondary education generally viewed higher education as desirable, but that background was still important; in addition to higher social class students, Scots and some ethnic minorities were the most likely to enrol. However, perceived achievement was also important – those with high exam expectations were highly likely to enrol. Regarding perceived influence, important others did not play a uniform role; parents, school career and guidance teachers were experienced to play a role in discouraging from further studies, while school subject teachers were perceived as important influencers by those most definite about pursuing higher education. Thus, background consists of more than just socioeconomic status; it is a complex mixture also including, for example, past experience and expectations, and network of important others.

Other scholars go further than Meyer (2008) in questioning the attraction of learning, finding that US students tend to value course completion and good grades over actual learning and development (Miley & Gonsalves, 2004; Arum & Roksa, 2011; Pascarella, Blaich, Martin & Hanson, 2011). This is not just an entry-level attitude. Studying if students in upper-level psychology courses are more learning-focused than students in introductory courses (who have earlier been shown to be more interested in grades than learning), Miley & Gonsalves (2004) found the results to be highly similar; upper-level course students also professed to be mostly interested in grades and took the course because it was required rather than hoping to learn anything interesting or useful. In line with this, research indicates that many students do not improve their higher-order academic skill during their first years at university (Arum & Roksa, 2011; Pascarella et al., 2011).

When talking to colleagues, we often find the view that the expansion of tertiary education and the political goals of getting half the population through tertiary education lead to a climate with more focus on passing courses than on learning. Some support for this view can be found in Whitehead, Raffan & Deaney (2006), who investigate high-achieving secondary-school UK pupils (those who have a chance of being admitted to Cambridge). This group, which has greater aptitude for university
studies than the average university student in today’s mass enrolment, also exhibit somewhat more classical ideals. Like in Bourdieu & Passeron (1977) and Connor et al. (1999), those from more privileged backgrounds were much more likely to attend university, and to apply to Cambridge (and indeed, to answer the questionnaire). But unlike in the US studies (Miley & Gonsalves, 2004; Arum & Roksa, 2011; Pascarella et al., 2011) the degree in itself was not the foremost objective. Like in Meyer (2008), going with the flow was one important factor (encouragement by teachers, expectations from parents, doing like your friends do, could not think of any alternatives, don’t want to get a job yet, and seeing it as a natural progression from school). An alternative factor was the attraction of academic life (student life, student social life, being independent and away from home, and enjoying the academic challenge). The third factor contained the degree focus (needing it to follow ones chosen career), but it also contained wanting to train for that career and wanting to study new subjects (not the A-level subjects). This could be interpreted as demonstrating that high-performing pupils are more likely to choose the tertiary-education path because university studies and university life hold attractions, or to see it as the obvious path to follow, rather than typically attending university for the instrumental purpose of obtaining a useful degree without being interested in the learning involved.

The conclusion so far is thus that universities are indeed in general moving in the direction of degree production, but that there are still both students and academics who cherish the idea of learning, and of improving the capability to continue to learn also outside of university.

**ONLINE EDUCATIONAL RESOURCES – CRAFTED, SYSTEMATIC SUPPLY OR EVOLVING ECOLOGY?**

Modern IT is increasingly seen as a prerequisite for adequate knowledge acquisition, economic and political communication, and therefore, the uneven distribution of its access and use (the digital divide) is seen as a problem (Guillen & Suárez, 2005). There is no doubt that modern IT can help increase our communication range – both synchronically and asynchronically. But what about knowledge acquisition? McLure Wasko & Faraj (2000) distinguish between knowledge as object (externalisable), as residing in brains (necessitating interaction between individuals in order to share), and as part of the social network (making interaction within the network necessary for developing and sharing knowledge). Investigating the participation in online networks, they find a number of self-centred and social motives for contributing. In the OECD (2007) report on OERs, knowledge as object appears to be the main (unarticulated) conceptualisation of knowledge. McLure Wasko & Faraj (2000), on the other hand, are particularly interested in the development and exchange of knowledge in electronic communities. They maintain that knowledge often arises out of the interaction and
collaboration within the community, rather than merely exists as encoded objects to transfer between community members. And the simple transfer of knowledge as externalised items has long been challenged. Polanyi (1958) noted that all knowledge – and the acquisition of it – requires nested, unfathomable depths of existing, partly tacit, knowledge. Knowledge is also based on social context (Langefors, 1995; Ngwenyama & Lee, 1997). For example, a particular technical document may be intelligible only to people who share a specific frame of reference, including technical jargon and knowledge (Boland & Tenkasi, 1995). A group sharing such a frame of reference can be a community of practice or community of knowing (Brown & Duguid, 1991; Boland & Tenkasi, 1995). Knowledge that may be relatively easy to share within this community may be very difficult to share outside it. Knowledge is thus to a large extent situated, and being part of a network where knowledge is discussed and developed becomes important to the further learning.

This is somewhat at odds with the at present rather hyped OER phenomenon Massive Open Online Courses (MOOCs). Packaged entire university courses are made available over the Internet, with texts, lectures and study questions. Concerns have centred on the scalability of grading. In an engaged TED talk, Daphne Koller presents such a large-scale, modern e-learning concept launched by an established, high-status American university (Koller, 2012). She claims that by using fellow student peer assessments, they can achieve scalable good-quality achievement assessment and possibly also individualised feedback even in courses with tens of thousands of participants. Some would go so far as to claim that MOOCs threaten the university system as we know it by outcompeting it. However, Daniel (2012) states that enrolment figures far from reflect the size of the classes that actually complete such courses. According to his sources, the overwhelming majority drop out early or somewhere along the way. The rate of attrition could indicate that MOOCs are not perfect substitutes for on-campus courses. Proponents, on the other hand, point out that MOOCs extend the reach of university courses to people who, because of physical distance, pricing or scheduling would not be able to participate in courses delivered in the classical fashion.

OECD (2007) noted, before the MOOC concept became popular, that there are important online educational resources (OERs) provided by classical educational institutions, such as MIT’s OpenCourseWare project, making course material available via the web, but not providing faculty interaction or course achievement assessment. They also point to Wikipedia as an example of an important OER provided by a large and engaged community that is facilitated by the non-profit organisation Wikimedia.
Such packaged OERs, provided by formal or more informal organisations, can be convenient especially to those who lack good search strategies and are not used to assessing the quality of material they encounter. But to people like those at the younger end of the birthday table, the web also contains almost infinite amounts of OERs provided by individuals who have chosen to share their knowledge. Such sharing could take place on blogs and fora, but also on, for example, YouTube, where let’s play-videos have started to mushroom, inspiring hundreds of thousands of (often young) people to share their skills and knowledge by means of instruction videos, and viewers can comment, rate and discuss. Such developments have now made learning and education a field also for individuals and non-professionals. It is no longer mainly an area where the large organisations are the providers and the enrolled students the main learners.

OERs are not only used to learn to play games, edit videos and music, and master complex standard software (Westelius, 2013); they are also used for humboldtian Bildung purposes and for task-specific learning by people who view Internet-based resources as a normal part of their life.

Thus, there is reason to believe that the landscape of OERs and ICT-mediated interaction (a landscape including classical educational organisations and students, as well as individual knowledge sharers and learners motivated by a need for knowledge rather than the acquisition of a diploma) will continue to change, bridging and disrupting institutional and individual teaching and learning discourse and cultural practice.

OUR DATA SOURCES

The original material used in this paper is derived from a number of sources. Both of us are active as teachers at universities – one in Australia, the other in Sweden. This has given us access to Master’s and undergraduate student input in class discussions, as well as openings for semi-structured interviews with individual students regarding their aspirations, practices and ideals. In addition, we have taken the opportunity to discuss the paper’s topic with colleagues and with former students.

A number of discussions over time with people from “the young end of the table” have provided us with the alternative perspectives of people who could, but have not chosen to, enrol at tertiary-education institutions.

A third source consists of 25 semi-structured interviews with people at a planning and operations control department in a large, European corporation regarding their work, competence ideals and match between education and training and their current work. This has provided practitioner perspectives on the usefulness and value of higher education in relation to other sources of competence.
VIEWS ON EDUCATION AND ACQUISITION OF COMPETENCE

Looking at the university students we have talked to, there is some sense in all the studies we have referred to above. The students we have talked to typically come from a background where obtaining a university degree is the norm rather than a matter of debate, although there are exceptions. The pressure from society is also very prominent – with few exceptions, they see the degree as a requirement for the types of jobs they want. Although grades are important to them, they tend to express a joy in being able to choose subjects that interest them at the Master’s level – a rare opportunity at undergraduate levels, where the programs leave few choices open. The attitudes to learning mainly for the sake of learning, or learning sufficiently to pass the course with a good grade, differ. Still, a good (or top) grade is seen as an indicator of solid learning, and few would spend considerable extra time above what is required to achieve the intended grade just for the joy of learning – it is viewed as important to complete the program at close to the nominal duration, and there are always other subjects that could be studied that would reward the student with both new knowledge and course credits.

Even though they see the subjects at the Master’s level as interesting and the knowledge obtained as useful, many of them view themselves as capable learners, and would not have chosen the university path just for the possibility to obtain interesting or useful knowledge; they believe that there are alternative ways for doing that and feel comfortable in handling them. However, others feel less confident in their ability to create useful and relevant assemblages of learning. They view the university’s packaging of potentially relevant knowledge as an important factor, and would enrol for another program if they would choose to change career later in life.

Neither is the access to intellectually stimulating peers and seniors a primary force in making the students we have talked to choose the university path. It is a plus that the university setting is rich in such possibilities, but they do not see this as unique to universities. Likewise, the network that they form at university, and that is likely to prove useful in future, is a bonus, but not a main reason for enrolling.

Many have experience of taking distance courses at other universities (mainly ICT-facilitated interaction and text-based courses with varying degree of required and realised student interaction). This is viewed as a useful complement, either for courses not offered at the home university or for coursework in off-term season. So far, none of the students have taken a complete MOOC, viewing it as too large a package to be directly relevant knowledge, especially given its non-official credit status; they prefer assembling small components when they are looking for knowledge rather than course
credits. Distance courses and MOOCs are viewed as building on the knowledge as object view (cf. McLure Wasko & Faraj, 2000), rather than as residing in brains or in the network. As a contrast, when looking for specific knowledge in areas they are familiar with, students often turn to online communities, partly to benefit from the discussions and different points of views that develop in a thread as response to a question: behaviour more consonant with the view of knowledge as residing in networks.

If this is how prospective students and active students think about university and learning, what is then the view from the practicing side? In our interviews with people in the planning and operations control department in the European corporation, few professed to have had much use of specific subjects studied at university, but that the subjects had provided a useful platform for learning about their industry and their organisation. (Almost all had a Master’s, and the majority had studied at the same prestige technical university.) However, they believed that the university studies had been useful – learning to deal with complex problems, learning to deal with masses of input, learning to think in terms of models and abstractions, and building confidence in being able to deal with complex problems and large amounts of material in a productive way. Typically, they saw their studies as a good preparation for their current work, not wishing to have studied dramatically different programs (although some thought that a mixture of science and business studies would have been better than a pure science degree).

Thus, what they valued in retrospect was more of ways of thinking and confidence in their capability of analysing and addressing challenging tasks than specific pieces of subject knowledge. They also tended to look up to the same people with an especially sharp analytical mind – and to those with considerable, deep knowledge of the company and the operations. In their work, use of general OERs was insignificant, and general education or training after their initial degree was unusual and not considered worthwhile. However, the development of computer models for analysis and the use of masses of internal and external data as the basis for analysis, planning, operation, and in dealing with their market were very important. The virtual was an indispensable tool in dealing with the actual operations and environment. Knowledge was very much something residing in the brains of people, and even more in the network. Rather than wishing to acquire the skills of admired colleagues, they would view the collaboration and interchange between people with somewhat different skills, ideals and experience as the obvious way to deal with their tasks and to improve the performance of the unit.

Returning to the birthday table, the people at the young end find that the online world extends their learning possibilities – and competence reach – sufficiently for any needs they have so far met or can envisage. They have a range of friends and acquaintances at close distance and across the globe to
discuss and debate with – or ask for advice. Contact with them is not “IRL”\(^1\) or “virtual” – physical meetings (sometimes in other countries or with people from other countries), video calls, chats (audio and text), texting, audio calls, social network media, online community participation, etc, are all part of the options available in the real world that they have grown up with. And of course they read books, blogs, wikis, scientific journals and watch talks and lectures available online when curiosity or need prompt them. To others, this world of resources at their fingertips could be divided into static resources and resources capable of interaction. But to people like those at the birthday table, such categorisation is of little interest, since they do not view each item or resource in isolation, but rather as components that can be combined into systems of learning that can, but need not, include direct or mediated interaction with other people. Their learning is paced by need or curiosity, not by curricula. They are definitely more of “students-as-community members” than “students-as-customers” (Richter, Walsh & Wilson, 2010) and perhaps even “learners-as-community members”, where the community is a shifting, larger and more blurry assembly of people than the single-topic-focused community of knowing of, for example, Boland & Tenkasi (1995).

THE END OF EDUCATION OR THE RETURN OF HUMBOLDTIAN IDEALS?

A potential development is that university degrees would lose their value because they are no longer the exclusive marks of distinction that they were when Corey (1936) or Bourdieu & Passeron (1977) wrote about higher education. But, as noted by Bourdieu & Passeron (1977) and Whitehead et al. (2006), all institutions of higher education are not equal. Some hold more status, and their degrees are therefore more valuable. In addition, within an institution, programs differ in prestige. Further distinction can be made according to grades. Obtaining a high-status degree depends, as noted, on cultural, symbolic and social capital, not only (and according to some, not even mainly) according to acquired knowledge and abilities. OERs will not change this, but they can facilitate the acquisition of knowledge and abilities for those who are interested in that, rather than in a degree. Access to these resources depends more on which side of the digital divide the person is on, than on socio-economic status and social capital. Thus it can be viewed as a democratisation of education, especially in countries where tuition comes at a noticeable fee. (In Sweden, tuition is free of charge for Swedes and EU citizens.)

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\(^1\) IRL, In Real Life, is a label that denotes non computer-mediated activities, as distinct from computer-mediated ones (then often termed virutal).
It can also be viewed as a democratisation of education, affording an option to people, who for different reasons find it difficult to commit to university studies, as the pace and place of OER use is left to the user’s discretion. But the ability to benefit from the access – and indeed to be able to learn through the use of these resources – is not independent of the possession of cultural, symbolic and social capital. It may be a viable alternative to those who have grown up with ample such capital, and to those who have moved into circles where they now have such access. Since they already have access to all forms of capital, they can rest assured that their skills and abilities will be valued and that a tertiary education degree is not necessary as an entry ticket to the job market. They could even make a point of not having one, thereby distinguishing themselves from their peers. But the people at the birthday table are not the masses, and they are certainly not underprivileged, so their present choices and success can not be taken as evidence that the time of universities has passed, and that OERs form an effective bridge across socio-economic differences.

What their choices could indicate, however, is that to those growing up in a world where they do not see the virtual as distinct from the real, but rather as integrated aspects of their lived world, the Bologna model of three plus two years of university education as a prerequisite for intellectual jobs could be challenged. This challenge comes from the top of the social pyramid – from those with a privileged background and with self-confidence. Their Bildung journey started long before the age when you would typically enter university, and to them, learning on demand, not pre-packaged learning just-in-case, is already a reality. And judging from the rear-view position of the practitioners we have interviewed, what they actually have found useful from their university education is to some extent already possessed by the young friends at the birthday table, and could be further honed and acquired as needed.

If the widespread notion is true, that students attend university to get a degree, rather than obtain knowledge or develop a way of thinking and learning (substantiated by, for example, Miley & Gonsalves, 2004; Arum & Roksa, 2011; Pascarella et al., 2011, but challenged regarding high achievers by, for example, Whitehead et al., 2006), the individual learning, non-university route is not likely to become mainstream anytime soon. Judging from the university students we meet, some (who also come from privileged backgrounds, and who value learning) would have considered such a path if it could be demonstrated to constitute a viable alternative to the degree path. However, following an individual path takes self-confidence and sufficient social capital. Thirty percent of the students at the prestigious engineering and management program at Linköping University in Sweden created their own individual mix of electives at the Master’s level, rather than choosing pre-specified subprograms.
(such as logistics, finance, or computer science). This led the program board to modify the courses to make it easier to mix and match, creating an individual best-of-breed profile. However, many students found this seemingly attractive freedom difficult to handle – it proved difficult for them to market their individual profile, and the program is now reverting towards strict sub-profiles (which are also more economical from a supply side). Thus, not even the majority of those attending a prestige program could be expected to try to follow a novel path that puts more responsibility on the individual, compared with choosing the mainstream alternative.

Thus, we are perhaps seeing the start of a change in the present, taken-for-granted higher education model, but not from the direction that the popular debate indicates. Our analysis leads us to conclude that the alternative provided by OERs will more likely be appropriated by, and benefit, those in university programs than those who are presently barred from them, and the privileged who can choose it as an alternative to the university model, rather than the underprivileged, who would see it as their only option – an option that, to them, so far is not equivalent to a university program.

Although diluted by mass education, the degree from a tertiary-education institution still has a signal value that many employers and young people dare not reject. The general edge is getting blunt, but differentiation within the university system still makes the university system as a whole a powerful sorting tool. Top institutions and programs also provide access to social networks, important communities that could help in acquisition of knowledge, but even more so in acquisition of job opportunities – likes attract. The fact that some young, ambitious, talented and well-connected people choose to enter the job market after their secondary-level schooling, and rely on learning-on-demand, to a considerable degree facilitated by a wide range of OERs and IT-mediated communication, points at a failure in the present education system and university-degree ideals. When engaged in recruiting, HR-departments today routinely comply with these university-degree ideals by including tertiary education as a default qualification. This is gradually becoming a more risky standard procedure, if talent and competence is what is sought. Tertiary education has always in part been form and symbol rather than just learning and competence development, but it is gradually becoming more so.

We can probably expect a small but growing portion of the younger generations to choose the alternative path. But their competence will be difficult to signal outside their own networks. If they continue to be successful, we could expect them to further the careers of others in their networks who have made the same choice. But unless universities follow a path where they clearly become irrelevant as institutions of learning and competence development, the majority of those in positions of power in organisations will have a university background and, like our interviewees at the planning and
operations control department, will have reason to maintain the notion that the years they spent at university were valuable, and thus, that a university background is desirable among those that they recruit and promote. This can be an adequate strategy, to a reasonable extent safeguarding against poor recruitments. But like any standard procedure that acquires the unquestioning stability of ritual, it will also tend to exclude the unconventional high-quality alternatives. Based on our research, we would advise those seeking self-confident, creative people prepared to follow unconventional paths towards set goals, to try to devise ways of identifying the emerging self-educated, and self-educating breed. In addition, if recruited, these young people who have mastered self-directed learning-on-demand could contribute to spreading the skills of how to benefit from the growing OER ecology.

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