CHAPTER 14

STUDENT AS PRODUCER IS HACKING THE UNIVERSITY

Joss Winn and Dean Lockwood

EDITORS’ INTRODUCTION

Drawing on the example of the ‘Student as Producer’ project at the University of Lincoln, UK, Winn and Lockwood explain how curriculum design is expected to be informed by a view of the student as an active contributor and collaborator to the knowledge creation process. When students are engaged to such an extent, they bring with them use of technology as a norm. Designs for radical pedagogy, facilitated by technology, need to consider their impact on the roles of the different actors involved. So, at Lincoln, staff and students have been encouraged to explore and experiment with technology together, with a particular focus on how openness is expressed and enacted within today’s technologically rich environment. Here design is seen as a truly collaborative venture that brings staff and students together.

A DYSFUNCTIONAL RELATIONSHIP

The Centre for Educational Research and Development (CERD) was created in 2007 to lead the University of Lincoln's Teaching and Learning Strategy, run post-graduate courses for the study of education and practice of teaching, and support the academic use of technology across the university. Since its inception, the theme at the heart of
the Centre's work has been to reconnect research and teaching, the core activities of universities. Central to this objective is an attempt to reconfigure the dysfunctional relationship between teaching and research in higher education and a conviction that this can be best achieved by rethinking the relationship between student and academic. We call this project 'Student as Producer' and since late 2010, Student as Producer (http://studentasproducer.lincoln.ac.uk) has been adopted as the de facto teaching and learning strategy for the University of Lincoln.

As such, Student as Producer is a university-wide initiative, which aims to construct a productive and progressive pedagogical framework through a re-engineering of the relationship between research and teaching and a reappraisal of the relationship between academics and students. Research-engaged teaching and learning is now ‘an institutional priority at the University of Lincoln, making it the dominant paradigm for all aspects of curriculum design and delivery, and the central pedagogical principle that informs other aspects of the University’s strategic planning.’ (Student as Producer 2012)

Under the direction of Prof. Mike Neary, then Dean of Teaching and Learning, much of the work of CERD has been informed by the conviction that students should become producers rather than consumers of knowledge and of their own social world. By engaging students and academics as collaborators, we can refashion and reassert the very idea of the university.

The argument for Student as Producer has been developed through a number of publications which assert that students can and should be producers of their social
world by being collaborators in the processes of research, teaching and learning (Neary 2008; Neary and Winn 2009; Neary 2010; Neary and Hagyard 2010; Neary et al. 2014; Neary and Saunders 2016; Neary 2019). Student as Producer has a radically democratic agenda, valuing critique, speculative thinking, openness and a form of learning that aims to transform the social context so that students become the subjects rather than objects of history - individuals who make history and personify knowledge. Student as Producer is not simply a project to transform and improve the ‘student experience’ but aspires to a paradigm shift in how knowledge is produced, where the traditional student and teacher roles are ‘interrupted’ through close collaboration, recognizing that both teachers and students have much to learn from each other. Student as Producer aims to ensure that theory and practice are understood as praxis, i.e. a process of ‘reflection and action upon the world in order to transform it.’ (Freire 2000: 51).

A critical, social and historical understanding of the university and the roles of researcher, teacher and student inform these aspirations and objectives. They draw on radical moments in the history of the university as well as looking forward to possibilities of what the university can become. Student as Producer is not dependent on technology but rather on the quality of the relationship between teacher and student. However, the extent to which technology can support, improve and even positively disrupt this relationship is key.

An important aspect of the project is redesigning the university’s administrative and bureaucratic processes so that they align with and support the principles of Student as Producer. This is an organic process intended to engage administrative staff,
academics and students in the development of curricula and course validation. As part of their curriculum design, academics are asked to:

- Show ways in which the courses will include research engaged teaching.
- Consider issues of space and spatiality in their teaching practice.
- Describe how they will write up their teaching as a scholarly research project.
- Illustrate the ways in which they will use appropriate web technologies.
- Demonstrate the extent to which students are involved in the design and delivery of programs and courses.
- Show how the course enables students to see themselves having a role in creating their own future, in terms of employment, and to make a progressive contribution to society (University of Lincoln 2010).

Student as Producer regards students as expert users of the university’s facilities and, following examples in other sectors, recognizes that student/user engagement is essential in the design and delivery of their own programs and modules, i.e. the design of the idea of the university.

Student as Producer is not dependent on technology but recognizes that it is deeply embedded in modern university life, supporting, for example, the increasingly collaborative nature of research through discipline-specific Virtual Research Environments and the creation of Personal Learning Environments where teachers and students use technologies pragmatically, appropriate to their needs and capacities. Likewise, technology can be used to understand, map and visualize the uses of physical and virtual space and underwrites critical institutional functions penetrating
deep into the overall ‘learning landscape’ of the university (Neary and Saunders 2011). Arguably, networked technology is now ingrained in the very ‘idea of the university’ and the social production of knowledge. It is not a matter of asking, ‘what is the role of the Web in higher education?’ but rather, ‘what is the role of the university in the world of Web?’ (Powell 2009)

Student as Producer recognizes what The Edgeless University called a ‘time of maximum uncertainty and time for creative possibility between the ending of the way things have been and the beginning of the way they will be.’ (Bradwell 2009: 63). At a time when the higher education sector is being privatized and students are expected to assume the role of consumer, Student as Producer aims to provide students with a more critical, more historically and socially informed, experience of university life which extends beyond their formal studies to engage with the role of the university, and therefore their own role, in society. Pedagogically, this is through the idea of ‘excess’ where students are anticipated to become more than just student-consumers during their course of research and study (Neary and Hagyard 2010).

Through this ‘pedagogy of excess’, the organizing principle of university life is being redressed, creating a teaching, learning and research environment which promotes the values of experimentation, openness and creativity, engenders equity among academics and students and thereby offers an opportunity to reconstruct the student as producer and academic as collaborator. In an anticipated environment where knowledge is free, the roles of the educator and the institution necessarily change. The educator is no longer a delivery vehicle and the institution becomes a landscape for the production and construction of a mass intellect in commons, a porous, networked
space of abundance, offering an experience that is in excess of what students might find elsewhere.

The remaining part of this chapter provides two case studies of how Student as Producer is infiltrating quite different areas of university life at Lincoln. The first discusses Student as Producer in the context of Deleuze and rhizomatic curriculum design, while the second looks at how the project is being applied to the development of an open institutional infrastructure, in which Computer Science students are redesigning and developing the tools used for research, teaching and learning.

RHIZOMATIC PEDAGOGY

Gilles Deleuze, in 1990, suggested that pedagogy would soon be caught up in an incessant ‘decoding’ and ‘recoding’ as capitalism mutated to seize upon the potential that digital flows of communication offered for unleashing energies hitherto accumulated in closed institutional sites. Notwithstanding digitality’s crucial role in this mutation, Deleuze maintained that ‘machines don’t explain anything, you have to analyze the collective arrangements of which the machines are just one component’ (1995: 175). A key question such an analysis would address is whether the exigencies of communication in this emergent situation will lead also to new ‘lines of flight’, new forms of resistance. If so, resistance would be more likely to turn around ‘creation’ rather than ‘communication’: ‘Creating has always been something different from communicating. The key thing may be to create vacuoles of non-communication, circuit breakers, so we can elude control’ (Ibid.).
In a 2011 Student as Producer project, drawing on a CERD fund dedicated to enabling innovations in curriculum design, Lincoln School of Media lecturers Rob Coley, Dean Lockwood and Adam O’Meara embarked upon an experiment inspired by this thought of the interruptive vacuole with a level 2 Photography Projects module (taken, on this occasion, by 42 students). In hacking parlance, we might call this an ‘exploit’, a move designed to turn a system to one’s own advantage and open up the possibility of something new happening. Consonant with the basic principles of Student as Producer outlined above, the design of the course was conceived as directly research-engaged. In this instance, tutors brought students’ attention to bear on the concept of the rhizome – key to much of the tutors’ own independent research - taken from Deleuze’s work with Felix Guattari (Deleuze and Guattari 2004), suggesting that the semester’s work could constitute a serious collaborative attempt to generate, in the encounter between this conceptual adventure and their practical work, new and original lines of enquiry for photographic image production.

There is insufficient space here to fully unfold the implications of the rhizome concept but, briefly, it indicates an attempt to break away from Western hierarchical – or ‘arborescent’ - models which encourage us to think in terms of the logic of representation and reproduction of already given structures. For Deleuze and Guattari, the rhizome – a flat, horizontal root-system – suggests the immanent, transformative connectedness of the world and constitutes a corrective to an arborescent logic of stand-alone ‘trees’. The rhizome privileges the connecting line rather than the isolated point. It is an endlessly proliferating assemblage of lines which connect from the middle. Connectivity, without centre, boundaries, beginning or end, is the first principle of the rhizome. Related principles are heterogeneity and multiplicity. The
rhizome ceaselessly self-differs. Further, it expresses a cartographic logic of production rather than a ‘tracing’ logic of reproduction. Constructed on the basis of fostering new connections, ‘what distinguishes the map from the tracing is that it is entirely oriented toward an experimentation in contact with the real’ (Deleuze and Guattari 2004: 13). In the rhizomatic, cartographic encounter, when tutor and student and tutor/student and the real, come into contact, the world emerges anew in a process of mutual ‘becoming’. Nothing is represented. Nothing is communicated, only created.

The module tutors envisaged that the rhizome concept would enable themselves and students, with photographic image production as the pretext, to connect up to each other and to the real in exciting ways which obviously could not be fully stipulated at the commencement of the project. It was hoped that the use of available digital technology would facilitate this – students were required to contribute ideas to a blog set up for the purpose of the project and encouraged to share and upload their work to Flickr, Vimeo and other online resources. It should be noted that tutors did not promote an uncritical embrace of the digital. The emancipatory potential of digital technologies is precisely something to be struggled for, part of what is at stake.

It is fair to say that students experienced some difficulty in grasping what was an unfamiliar way of framing our thinking and doing. In particular, there was much discussion around their anxieties with regards to how, given the foregrounding of rhizomatic connection and becoming, individual achievements would be recognized and assessed. Assurances were given that reasonable efforts to participate in the project would in themselves merit a pass mark as a baseline, regardless of ‘quality’ of
final product, thus providing a safety net. However, tutors did not set out to suppress
dissonant views, seeing these as a necessary part of the project. Connectivity should
not imply consensus. The tutors agree with those running similar projects (which have
taken the rhizome as the organizing principle for pedagogical experiments) that the
key to such experiments lies in the insight that ‘the community is the curriculum’
(Cormier 2008). Where they differ, however, is in their greater insistence on the
political valency of rhizomatic pedagogies. It is in this respect that elements of
conflict should be welcomed. The community-curriculum learns in a moment of
crisis, surrendering the consolation of reproduced knowledge. If nothing is at stake, is
anything truly learnt? Rhizomatic pedagogy embraces collective movement of
thought, generating new styles of thinking. Mobile thought is creation from the
middle, in and through others as mediators. This perspective shatters the complacency
of received truths, common knowledge. It demands a community of mediators who
connect in order to make things happen, to invent in the space between individuals,
rather than merely to agree. The tutors hoped that what would transpire would be a
collective, intervalllic spirit of invention fostering an immanent transcendence of
traditional tutor and student roles and relationships.

The project evolved to encompass group outings to make images and stitch them
together as a ‘pack’, an exploit from which a new assemblage promised to emerge
within the old. The pack generated its ideas and images, culminating in a provocative
exhibition in a public space in Lincoln city centre on a busy afternoon. In the time
since the project came to an end, sufficient positive feedback has been gathered from
both tutors and students to merit further investigation of this approach to teaching and
learning. The experiment has been a frequent talking-point for the students who were
involved and its resonances continue to be felt – something new most certainly occurred.

In this instance, rhizomatic pedagogy aimed to foster a rhizomatic photographic practice, a way of producing images collectively that disrupts the traditional representational paradigm of photography. This has to be as much about exploring the techniques, methods, research ethos and social context of image production as about the eventual images produced. Throughout, process was foregrounded over product, which meant frustrating the expectations of some students. In relation to technology, tutors proposed that a tutor-student rhizome might hack photography as a kind of serious play rather than maintain a strictly instrumental orientation to the camera and associated conventions. To be more specific, it was deemed imperative for the project to critically interrogate the default assumptions tutors and students have in regard to how to teach and learn photography. Expectations of both parties have typically revolved around the notion that an individual will be instrumentally orientated towards the camera as a means of representing some aspect of the external world as skillfully as possible in order to be rewarded with a good grade. The rhizome project, tutors suggested, would work with different assumptions. These are that the group finds itself in the middle of an emergent situation, to which it critically attends by perceiving, thinking and making images with machines, i.e. cameras. It also reflexively attends to its own assumptions and expectations and the logic inherent in the camera, because these also are connected and germane to the situation. In particular, the digital camera is to be conceived not as an inert, neutral and complete technological tool distinct from its human operator, but rather as an element in a mobile collective arrangement or assemblage which expresses what can be done and
which, in the context of Deleuze’s concerns about the mutations of power, both
tools and offers certain potential for resistance: ‘The concept of assemblage shows
us how institutions, organizations, bodies, practices and habits make and unmake each
other, intersecting and transforming: creating territories and then unmaking them, de-
territorializing, opening lines of flight as a possibility of any assemblage, but also
shutting them down’ (Macgregor Wise 2005: 86). To engage in photography
education could be, under the auspices of the rhizome, to hack into and re-invent the
machinic assemblages of which we are components. The notion of exploiting lines of
flight emerging immanently within machinic assemblages can feed into the Student as
Producer strategy and contribute to a culture of genuine creation as opposed to the
communication of pre-digested information.

AN ACADEMIC COMMONS

In 2009, in a book chapter called Student as Producer, Mike Neary and Joss Winn
offered a historical overview of the development of the modern university and, more
recent attempts in the US and UK to work against the growing disjuncture between
research and teaching. In the conclusion to our chapter, we specifically drew on the
activities of the Free Culture movement as an exemplary model for how the
disconnect between research and teaching and the work of academics and students,
might be overcome and reorganized around a different conception of work and
property, ideas central to the meaning of ‘openness’ or, rather, an ‘academic
commons’.
Our approach to institutional openness at Lincoln has been to recover and develop the connection between the values of openness and the values of academic life. As such, there is no policy or on-going discussion concerning openness, but rather we have seen Student as Producer as a vehicle for demonstrating how the values and practices of openness are historically grounded in the work of universities and the academic life, which Student as Producer seeks to promote, challenge and develop in a radical way.

In 2008, the Centre for Educational Research and Development established the Learning Lab, an autonomously run virtual space for experimenting with and evaluating open source software that may be of value to research, teaching and learning at the university. One of the applications we first trialed on the Learning Lab server was the Open Journal Systems software, which was installed to help a group of students and staff develop an open access journal of Occasional Working Papers. While relatively short-lived due to staff and students leaving, we were able to support those involved by making the technology easily available to them and promoting their work within the context of what was being called the Academic Commons. More recently, the platform has been adopted by post-graduate students who intend to re-launch the student journal, Neo.

Running on an open source server, the Learning Lab allowed for much experimentation with and the adoption of different types of open source software, including Mahara (e-Portfolios), MediaWiki, Webpa-OS (peer assessment), Xerte (learning materials), feed2js (RSS to Javascript conversion), OpenSim (virtual
worlds) and, most significantly, the open source blogging software, WordPress Multi-
User.

Although from one perspective, WordPress is simply an open source publishing
platform, we intentionally configured it so that it is open for any student or member of
staff to create a modern, content-managed website to communicate their work to the
public. There is no gate-keeper policy, but rather a set of Community Guidelines,
similar to other online community guidelines. The University's own Acceptable Use
Policy (AUP) was also revised around this time and explicitly promotes and
encourages the use of web applications. Within a year, WordPress was regarded as a
technologically sound piece of software and widely used by teachers, students,
researchers and university departments. As such, it was formally adopted by the
university and now hosts and manages over 1000 websites at http://blogs.lincoln.ac.uk

The freedom we have by running our own server(s) at the university as well as a
progressive academic environment in which to work, allowed colleagues in CERD
and the Library to spend over a year experimenting with the WordPress open source
software and use it as a platform for technological enquiry and innovation, rather than
simply a blogging tool. In this way, began a bottom-up approach to innovation
through openess, which was upheld and concurrently developed both theoretically in
our published writing and strategically in the development of Student as Producer as
the newly emerging teaching and learning strategy. In essence, as the University was
developing a more progressive teaching and learning strategy which promoted the
idea of openness, collaboration and that both teachers and students have much to learn
from each other, a more progressive use of technology to support research, teaching
and learning was also being developed through the use of open source software, the principles of open access, the promotion of open educational resources and, most recently, the release of open data. Each tactic supported and enabled the other.

Using Student as Producer as the over-arching framework, CERD, the Library and ICT Services worked on a series of funded projects which had students and openness as their central theme:

JISCPress (2009-10) allowed us to employ a second-year undergraduate student in Computer Science, to help develop an open source platform for publishing and discussing documents in detail.

With ChemistryFM (2009-10), an open Educational Resources project, we provided bursaries to two students to work with academic staff to develop and release an entire module of OERs for a Level One course in Chemistry for Forensic Scientists.

For the Total Recal project (2010-11), two students working part-time in central ICT services worked on a rapid innovation project to develop a 'space-time' calendaring service at the university, resulting in open source code and the creation of a large data store which became the basis for our institutional open data project, http://data.lincoln.ac.uk.

The provision of these student posts in ICT was largely the result of the growing interest in Student as Producer at the university, reaching across not only academic departments but also the central service departments, too. The Higher Education
Academy of ICT took on board the values of openness and collaboration between staff and students that Student as Producer promotes by employing students to act as 'critical friends' to the department and work with existing staff on the development of new online services. These students were encouraged to use the WordPress platform to blog about their experience in ICT and this intentionally disruptive influence of students working alongside staff, began to change the culture of the ICT department and led to the development and adoption of a number of online services which promote a more open and transparent environment at the university as well as the introduction of new technologies and a much greater willingness and freedom to engage in research and development projects.

With students in trusted positions in ICT, collaborating with staff in CERD and the Library, we were able to develop our ideas beyond the original Learning Lab environment and further our experiments with technology at the university. This led to Jerome, a summer 'un-project' of 2010, where we explored new ways of exposing, searching and using Library information to create a better way of using Library services. Jerome was later funded by JISC as our third 'rapid innovation' project in just over a year and, like Total Recal, made a huge contribution to our experience and understanding of new technologies such as MongoDB, the open source NoSQL database software, and data-driven development of APIs.

Both Jerome and Total Recal contributed large amounts of data to what has become http://data.lincoln.ac.uk and the development of this service also led to the development of a new Access and Identity Management (AIM) system at the university, created by students. These students, Alex Bilbie and Nick Jackson, also
developed the university's new Common Web Design, a modern framework for new university websites, now widely used across our services. As such, by working together on the research and development of components of university infrastructure, we have developed an open source ‘toolkit’ for both staff and student developers, including data storage, authentication and a presentation layer, allowing us to rapidly prototype and implement new services.

This successful working relationship between CERD, the Library and ICT Services, three key departments in the university, has been fundamental to building an academic commons, in which staff and students work together on open technologies to enable and support university life. It has been supported by senior management such as the Dean of Teaching and Learning, the Head of ICT and the university Librarian, but driven by enthusiastic staff and students who are given access to open source tools and open data. That openness can also be conceived as a ‘public good’ is recognized and valued by all involved, but is not the primary underlying motivation. Rather, the progressive and well developed pedagogical project of Student as Producer has provided us with a framework with which to involve students, situate distinctive projects when writing funding bids and receive recognition within the institution for the recognition we have attracted outside the institution for our approach.

This recognition has more recently led to the university’s committees approving the formation of LNCD (http://lncd.lincoln.ac.uk/), a new inclusive group which succeeds the Learning Lab and is informed by the progressive ideas of Student as Producer so as to engender critical, digitally literate staff and students. Core principles of the
group are that we recognize students and staff have much to learn from each other and that students can be agents of change in the use of technology for education. LNCD consolidates and furthers on-going collaborative work between the Centre for Educational Research and Development, the Library and ICT Services and extends an open invitation to staff and students from across the university to contribute to the group.

A graduate intern post ensures that the student perspective remains core to the group's outlook. We also continue to employ students and recent graduates as core members of LNCD. In its first year, LNCD has a budget of £20,000, much of which is dispersed to students and staff who submit proposals for projects around the theme of 'technology for education'. These are available on a competitive basis in the form of grants and bursaries providing an incentive to staff and students to get involved in the development, support and critique of how technology is used in higher education. Examples of funded projects include a tool that supports anonymous Q&A in class, encouraging less confident students to participate; a project to build a 3D printer and investigate the uses of this new technology across different subject disciplines; another project is assessing the use of WordPress as an ePortfolio tool for health and social care students; and another is building a robot for Open Day demonstrations. Each of these small projects is a genuinely collaborative undertaking between students and teachers. Furthermore, we invite third year students from the School of Computing to propose dissertation projects based around the use of our toolkit and data.lincoln.ac.uk, allowing us to mentor students as they develop our work further. This is very gratifying and one of these students has recently been employed by the
university, recognizing the contribution he can make to the development of new online tools for the university community.

In the setting up of the LNCD group, we have tried to ensure that openness remains a distinct theme throughout our work, both in the tools we use and the way we organize ourselves as a distributed, collegial group: ‘LNCD is Not a Central Development group!’

**HACKING THE UNIVERSITY**

Work on Student as Producer remains very much at the heart of what we do. It is both an institutional strategy and a three-year project funded by the Higher Education Academy, now in its second year. It has been very well received across the university and the sector, and is being embedded into the curriculum design process and teacher education programs we run.

Although internally consistent as a pedagogical theory, Student as Producer is being interpreted and adopted by staff and students at the University of Lincoln in different ways. Some, like Dean and his colleagues, recognize its basis in revolutionary praxis (drawing on the work of luminaries such as Walter Benjamin and other avant-garde Marxist writers, and the philosophy of Deleuze and others), while other colleagues, working in professional services, see it as a way to engage students in the critique and re-development of institution-wide services. All academics, however, recognize Student as Producer as a framework by which teaching and learning, including curriculum development, can become a much more collaborative effort.
In the case of LNCD and the core contributors of the group from CERD, the Library and ICT Services, we have framed Student as Producer in both our advocacy of the tools and methods by which the Free Culture movement operates and in a re-examination about the role of students as developers or 'hackers' in the university.

We see our work as fundamentally a form of hacking the academy, using and writing open source software and producing open data with which to 'hack the university' and create useful services and effect positive technological interventions in the research, teaching and learning environment of the university. From the perspective of a rhizomatic pedagogy, also, projects can be conceived as hacking exploits, a means to effect a revolutionary becoming for which revolution (as for Deleuze) is never actual, but always virtual, a matter of unfolding new potential, multiplying points of entry to and spontaneously surfing the propensities of a situation.

Just as we recognized in our original book chapter that the Free Culture movement owes much to its academic origins, we also recognized that ‘an exemplar alternative organizing principle is already proliferating in universities in the form of open, networked collaborative initiatives.’ (Neary and Winn 2009). The LNCD group is an attempt to develop that and as such understands that the origins of much of its work to date is in the hacking culture that grew out of MIT, Carnegie Mellon University and University of California, Berkeley in the 1970 and 1980s; the academic culture that developed much of the key technology of today's Internet.
When understood from this point of view, LNCD, as a Student as Producer initiative, is attempting to develop a culture for staff and students based on the key academic values that motivated the early academic hacker culture: autonomy, the sharing of knowledge and creative output, transparency through peer-review, and peer-recognition based on merit. We are mindful that this contributes towards a greater strategic priority of re-configuring the nature of teaching and learning in higher education and encouraging students to become part of the academic project of the University and collaborators with academics in the production of knowledge and meaning.

This approach is grounded in the intellectual history and tradition of the modern university and visible in our understanding of and approach to openness at the University of Lincoln. However, for us, it is not the case that we are consciously working towards openness, but rather we work towards defending and maintaining the core academic values that recent notions of openness are largely derived from.

REFERENCES


https://www.demos.co.uk/files/Edgeless_University__web.pdf.


https://nsuworks.nova.edu/innovate/


