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AUSTRALASIAN JOURNAL OF ECONOMICS EDUCATION

MISSION STATEMENT

The Australasian Journal of Economics Education is a peer-reviewed journal that publishes papers on all aspects of economics education. With a view to fostering scholarship in the teaching and learning of economics, it provides a forum for publishing high quality papers and seeks to bring the results to a widening audience. Given both the increasing diversity of the student clientele, and increasing calls for greater attention to the quality of tertiary teaching, this Journal seeks to foster debate on such issues as teaching techniques, innovations in the teaching of economics, student responses to such teaching, and the incentive systems which influence the academic teaching environment. The AJEE is interested in research involving both quantitative and qualitative analyses and also in interpretative analyses based on case studies. While the Journal is Australasian-focussed, it encourages contributions from other countries in order to promote an international perspective on the issues that confront the economics discipline. AJEE aspires to:

1. Report research on the teaching of economics, and cultivate heightened interest in the teaching of economics and the scholarship of teaching.

Pedagogical issues will be a central feature, and will encompass work on the teaching of economics in diverse contexts, including large and small classes, undergraduate and postgraduate classes, distance learning, issues confronting foreign students on-shore and off-shore, and issues related to the teaching of fee-paying MBA and other post-graduate groups from diverse disciplinary backgrounds. Though economics is the prime focus, consideration will also be given to work on other subjects that have a demonstrated relevance for the teaching of economics.

Such issues will also involve evolutionary issues in the teaching of economics, in terms both of effective ways to teach evolving theory and of evolving technology with which to teach that theory (including on-line teaching).

Recognition will be given to the fact that economics as a discipline has not fared well in CEQ results (course experience questionnaire
results) since the reporting of those results began in Australia. Nor has economics teaching typically been well received in the USA or UK, according to survey evidence. In that context the relevance to teaching of changing administrative arrangements in universities will also be highlighted (eg in terms of contemporary quality assurance procedures and other government policy changes in Australia and New Zealand).

2. Report research on the nexus between teaching and research (including research on the diverse, changing and potentially conflicting incentives within the academic industry). Papers exploring the extent to which research and teaching activities are complementary or competitive will be welcomed.

3. Recognise the relevance of some more deep-seated implicit assumptions and issues of economic philosophy embedded in what is commonly taught, (as in Sen’s work on economics and ethics, for example). Inter alia, the question arises as to the way in which students respond to economics taught as a path to scientific certainty, as against economics taught as reflecting unsettled debate and vigorous controversy.

4. Recognise the place of history in the teaching of economics. Both HET and economic history tend to play a diminishing role in professional economics training, as emphasis on technique dominates. This a-historical approach to the teaching of economics has been criticised by many influential economists (including Joan Robinson, Leontief, Myrdal, Colander, and Robert Clower in his acerbic remarks about the value of much that is published in such prestigious journals as the AER). This line of criticism has been continued in the recent growth of heterodox economics associations in a number of countries (including one for Australia and New Zealand) and on the web through the Post Autistic Economics (PAE) newsletter. Historical and institutional factors will thus provide one focal interest.

5. Recognise interdisciplinary issues important to the presentation of economics in various contexts. On the one hand, economics students are not systematically exposed to the insights of other social sciences and the conformity or otherwise of their conclusions with those of economics. On the other hand, other disciplines within the social sciences and humanities (e.g. the Social Work profession) do not always include even an introduction to economics for their students, notwithstanding that economic issues are often very important
determinants of the environment within which they operate. More fundamentally, questions arise as to whether social science is more than the sum of its respective parts, and as to whether the roots of economics can be fully understood in isolation from the history not only of economics but also of politics and philosophy.

6. Establish a link to the teaching of economics in the secondary schools, given that tertiary enrolments in economics reflect fluctuating enrolments in economics in the secondary schools.

7. Encourage on-going surveys of student response to the teaching of economics across Australasian (and other) institutions, including response to experimental teaching and to differences between institutional approaches. (c.f. Colander and Klamer’s 1988 survey of economics students at USA ivy league institutions.)

8. Monitor trends in the teaching of economics both globally and in the Australian and New Zealand university systems (such as enrolments, staff-student ratios, international-domestic student ratios, offshore offerings etc), and the implications of those trends for various funding arrangements.

9. Promote a series of papers on specialised themes within the overall province of the teaching of economics e.g. on the teaching of Principles courses, the teaching of History of Economic Thought, the teaching of intermediate microeconomics and macroeconomics, the teaching of development economics, and likewise regarding teaching in such streams as Quantitative Methods, large first year classes, non-English speaking background students, the teaching of economics to non-economists, product differentiation in teaching economics, and professional education in economics in executive education programs outside conventional university contexts.

10. Monitor the measuring and rewarding of quality (economics) teaching within Australasian universities.
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PEDAGOGY, M-LEARNING AND FINANCIAL STRINGENCY *

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ABSTRACT

This article serves two functions. First, some universities are charging headlong into blended learning, offering courses in virtual mode and developing massive open online courses. It is not unambiguously clear from the available education literature that the investment undertaken to achieve these ends will achieve a desirable payoff. We examine a subset of the literature on blended learning and find that there are grounds for scepticism about the overall benefits to student learning outcomes. Secondly, we present a case study of real decision making processes in an Australian university where it can be argued that decisions made on the basis of questionable strategies around such things as m-learning are displacing tried, tested and successful strategies for managing teaching programs.

Keywords: e-learning, traditional teaching methods, university administration.

JEL classifications: A20, A22.

1. INTRODUCTION

Blended learning is the new flavour of the month in many Australian universities. Blended learning refers to integrating the best aspects of face-to-face and online interactions for each discipline, using appropriate Information Communication Technology (hereafter ICT).

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While many Australian universities are keen to harness new technologies in the provision of education, the application of ICT to teaching is not without complications and difficulties. The developing literature that tracks the use of ICT in education certainly emphasises the potential for valuable contributions. However, that same literature also raises some significant concerns and limitations in the ability of ICT to improve educational outcomes. If there is one underlying moral of this literature, it is that the appropriate use of ICT in higher education is yet to be discovered, and that a hasty application of such technology is likely to be fraught with problems.

The purpose of this paper is to demonstrate how real decision-making processes in universities, made on the basis of questionable ICT strategies based around concepts such as m-learning, can displace tried, tested and successful strategies for managing teaching programs. The first part of the paper critically surveys key parts of the academic literature on ICT in higher education. This highlights the variable efficacy of ICT for tertiary education, and the likely errors of hasty adoption. In the second part of the paper, we present a case study in which a demonstrably successful economics program, where teachers were performing to a high standard and which was very popular with students, was effectively dismantled as part of a strategy that included the adoption of m-learning. The final part of the paper summarises and draws some conclusions.

2. FROM “E-LEARNING” TO “M-LEARNING”: MOBILE DEVICES IN TERTIARY EDUCATION

The advent of the internet and its associated tools has been responsible for dramatic changes in education. We intend to shed some light on one particular aspect of these changes, the use of mobile technology in education. Following from the notion of “e-learning”, the growth of mobile technology in education is now being referred to as “m-learning”. In short, m-learning is the use of electronic mobile devices by students as a central part of their educational experience. Accessing, storing, and interacting with information via such mobile devices allows students to pursue their study while either “off-location”, or even in transit, i.e., travelling. Already, many students are using technology in this way, and this is only likely to increase.

There is an extensive use of mobile devices by students – particularly now iPads. The days of carrying binders and spiral bound notebooks around campus seem to be largely over, as even those students who
make their own written notes are eager to transfer them to their computer storage. A critical investigation of the academic literature which has analysed this growth in m-learning, seems appropriate.

While this growth in m-learning is continuing, it is also fair to claim that these adjustments in education driven by the use of mobile devices are still evolving. The literature reveals a set of mixed outcomes, and that much is yet to be learned about the use of these devices. Moreover, the research here is not as conclusive as first appears.

We begin this investigation of the m-learning literature by consulting a recent paper by Wu et al. (2012). This study provides a solid overview of the topics within this broad literature. It does not aim to explain the precise details of any study, but instead examines the general categories and types of studies that have been performed. The studies that are considered by this analysis are all written between 2003 and 2010, and a total of 164 articles are included in the analysis. In terms of the types of methods used in the literature, surveys, experiments, with a smaller number using descriptive methods, are the primary forms of investigation within this area of study (Wu et al. 2012, p.820). The authors offer a number of definitions of mobile learning. The one they lead with is one that emphasises mobility: “O’Malley et al. . . . have defined mobile learning as taking place when the learner is not at a fixed, predetermined location, or when the learner takes advantage of learning opportunities offered by mobile technologies” (Wu et al. 2012, p.818).

The types of papers included in this survey generally fall between the following two categories: (1) Evaluating effectiveness of mobile learning, and (2) Designing mobile learning systems. The group of studies that explore the effectiveness of mobile learning (the first category identified above) suggest that the majority of the studies demonstrate a positive effectiveness of mobile learning (Wu et al. 2012, p.818). The problem is that the papers cited as being in support of the effectiveness of mobile learning are primarily referring to the perceptions of students. This is no doubt important, but it is not proof of the effectiveness of mobile learning relative to teaching methods used in the absence of mobile devices. For example, the first paper discussed, and the most cited paper in this literature (Evans 2008), uses the preferences of a student group as the defining test in deciding the effectiveness of the devices.
The survey also cites a small number of papers that query the effectiveness of mobile learning. The study by Doolittle & Mariano (2008), for example, is one of the few that is cited as presenting a case that is critical of mobile learning. However, we have noted that it is actually a more rigorous test in terms of effectiveness of mobile learning than most other studies in this field, and merits some further discussion below. A key finding of this paper is that students that work within a stationary (rather than mobile) learning environment perform much better, while those students with a low personal level of working memory capacity are particularly vulnerable in a mobile instructional environment.

The second of the two categories, those papers that focus on the effectiveness of mobile learning systems, found positive results when an appropriate learning system was generated that helped facilitate the use of a mobile device. For example, a noteworthy study demonstrated that when a learning tool is devised with student learning in mind, the outcome is much better. Indeed, the tool that was used to encourage further self-testing was very effective, as demonstrated by de-Marcos et al. (2010). Their survey presents an interesting overall picture of the literature. In terms of the types of devices used, at higher education institutions the use of mobile phones and personal digital assistants (PDAs) is by far the device most commonly studied in this literature, with laptops trailing behind.\(^1\) This suggests that laptops, while strictly mobile, are considered somewhat peripheral in achieving mobile learning.\(^2\) The deMarcos paper is explored in further detail below.

Overall, the studies of m-learning look to be interesting, and generally supportive. However, as foreshadowed, there are a number of methodological issues that weaken the claims of some of these studies. The next section moves beyond this overview, and summarises and critiques some of these papers, and also a number of others, in further detail.

### 3. AN ANALYSIS OF SPECIFIC STUDIES

The detailed analysis of specific contributions begins with one of the pieces identified by Wu et al. (2012). The paper by Chris Evans (2008)

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\(^1\) To be clear, this is use by studies, i.e., the studies that consider mobile learning are using these devices as the means by which m-learning is pursued. It is not necessarily indicative of student device ownership or behaviour. For further details see de-Marcos et al. (2010, p.820, and the table on p. 822).

\(^2\) See de-Marcos et al. (2010, p.823) for these statistics and details.
examines the efficacy of podcasts as review tools. This is one of the most highly cited papers in the literature, a point made by Wu et al. (2012), and corroborated by our own check of citations. Evans’ study is both interesting and useful. However, it also demonstrates some significant shortcomings. Like most authors in this field, Evans presents a definition of m-learning early in the paper, establishing the link between e-learning and m-learning:

Compared with traditional lectures, e-learning has the advantage of allowing learners to choose (within constraints) when, where, and how they study. It also allows learners to review material and gain feedback . . . Mobile learning (m-learning) inherits these advantages from e-learning, but extends their reach by making use of portable (handheld) wireless technologies. Suitable devices include digital media players (e.g., iPods, MP3 players), smartphones (e.g., blackberry, iPhone), and Personal Digital Assistants or PDAs (e.g., Palm, Pocket PC).

(Evans 2008, p.492)

Also, Evans writes:

The ability to study whilst travelling on transport uniquely distinguishes m-learning from e-learning, since (with the possible exception of the more cumbersome laptop) the latter normally requires access to a desktop computer and wired Internet access.

(Evans 2008, p.492)

Evans explains that Podcasts are excellent examples of m-learning, which allow the student to download, automatically if desired, lectures and listen and even watch a lecture in their own time and leisure, and on their own mobile device. This would seem to fit perfectly with the various definitions of m-learning noted above. Furthermore, Evans deals with a salient concern: that access to such devices might be a barrier to their use. He counters this concern by citing evidence that, in his study, the possession of iPods is approximately 75%, and likely to climb. Many of those students who do not currently possess an iPod claim that they are likely to buy one in the near future.

The specific purpose of Evans’ paper is to analyse the effect of podcasts when they are used as a supplement to attendance at the lecture, and accessed before the final examination. In this way, the podcast serves as an opportunity for the student to review material they have already observed. While we will not reproduce the six hypotheses verbatim, the hypotheses proposed are ones that address the ease, effectiveness, and efficiency of podcasts as revision tools in comparison to lecture notes, text books, and revision lectures. Two of the
hypotheses addressed students’ perceptions of podcasts as a lecture revision tool. The subjects were 196 volunteers from an undergraduate Business Management program at a London university. Ages ranged from 18 to 25, with the mean age of 19.27 years. Students were given a simple guide informing them how to access the podcast either by a PC or using an iPod. There were only 3 podcasts that provided revision material, released at one week intervals in the three week period between the final exam, and the last class.

The results of the analysis demonstrated student perception of effectiveness of podcasts as being favourable. Students believed that revising with iPod was quicker than revising with notes, and that revising with podcast was more effective that revising with textbook. Furthermore, students were more receptive to the material and the lecturer when the material was delivered by podcast rather than text books or even traditional lectures. These are good results, and deserve to be reported by the author.

On other hand, there was not a significant difference between the number of students who believed in the greater effectiveness of podcasts for revision, or effectiveness of the podcasts relative to lecture notes. This was downplayed, all too quickly, as explained below. To begin, the rejection of one hypothesis—the fact that a majority of students did not agree that podcasts were more effective for revision than student lecture notes—is actually cited as indicative of another benefit of the podcasts:

The fact that they report that they don’t find podcasts more effective than notes suggests that the summarising format of the podcasts was of particular benefit in helping learners focus on the important aspects to the subject without getting side-tracked by detail.

(Evans 2008, p.496)

This argument is unsatisfactory. This eagerness to cite only the benefits of podcasts, and to largely ignore any reluctance of students to endorse their use, significantly weakens the paper. This is indicative of the rush to endorse the benefits of these technologies without taking the time to analyse their use appropriately.

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3 See Evans (2008, p.493) for fine details of the specific hypotheses.
4 In terms of methodology, the paper can be considered somewhat of an experiment with students as the “subjects”.
5 Furthermore, the students did not significantly relate to the lecturer due to podcast revisions.
A further weakness of Evans’ paper is that the short length of each podcast (i.e., they are only 5 minutes each) is not revealed until the penultimate page of the article. It would be highly unusual that a 5 minute podcast can possibly cover significant amounts of course content. It also does not demand much time from students, making it very easy for them to access at low cost. The author is forced to admit that this “quickness” might skew student perceptions in favour of podcasts. Evans, however, refuses to concede any real ground on this point, and instead of dealing with this challenge in a balanced way, redirects the argument such that one of the rejected hypotheses can be used as a defence of the validity of the method. The following is the relevant paragraph:

One alternative interpretation of the “quickness” results is that it is merely indicating the fact that the podcasts do not last very long (they each have duration of about 5 min). If this were the case, then you would reasonably expect the data to reflect the belief that the podcasts are less effective since students would typically spend longer revising from their notes. However, the answers to the questions about effectiveness showed no evidence that they find the podcasts any less effective.

(Evans 2008, p.496)

This is a highly dubious argument. Recall, the students did not find podcasts to be more effective than using lecture notes for revision. Later, the author uses the two rejected hypotheses (i.e., students did not find podcasts as more effective than lecture notes, and receptiveness of podcasts is no greater than that of revision lectures) as a defence of methodology (Evans 2008, p.497). More specifically, the author uses these findings as evidence of discerning decisions by the student respondents, and therefore useful in refuting any claims that the survey was weakened by students giving answers that were socially acceptable, rather than honest.

Evans’ paper is overly optimistic about the use of podcasts, and the questions are too concerned with the students’ perception. More importantly, the author is not paying due consideration to those findings that are against his primary hypotheses. Instead of presenting the results as an insightful test of general student attitudes toward simple podcast supplements to the classroom activities, the article reads like a polemic claiming benefits of podcasts that are not yet clearly proven. We were very disappointed with this paper, and do not believe it merits the citations it is currently receiving.
A more balanced appraisal of podcasts is presented by O’Bannon et al. (2011). The authors study the effects of a podcast in comparison to traditional lectures, and find that while initially appealing to students, the results revealed that there was no significant difference between the achievement of students who used podcasts and those who did not. This is not to suggest they had a negative impact on student learning—the podcasts simply did not make a significant improvement in student outcomes. Furthermore, although some response to the podcasts were positive, the students did not suggest that podcasts should replace lectures at all, and should remain a supplement:

Another major finding of the study is that although students found the podcasts easy to use and their use was not detrimental to their achievement, they were not comfortable using podcasts to replace lecture and suggested that they be used for supplemental purposes only (O’Bannon et al. 2011, p.1891)

This study represents a big improvement over the work of Evans (2008). It offers a realistic test of podcasts, and while it identifies some benefits, it does also note some difficulties and challenges in the use of podcasts that can be overcome. Furthermore, it does not put all its stock in student perceptions, and instead consults some objectively measurable learning outcomes.

While podcasts are one of the most common utilisations of m-learning, the more general relationship between m-learning and an individual learner’s characteristics would seem to be an important consideration and scope for research. In a categorisation not dissimilar from Wu et al. (2012), Doolittle & Mariano (2008) emphasise that the m-learning literature has been investigated across three broad areas: new technology development, new technology evaluation, and existing technology application (p.513). However, they also note a lacuna in the literature in terms of the relationship between mobile technologies, and individual learner characteristics, and this is precisely where they see their own contribution. In particular, the specific characteristic that they are interested in is called working memory capacity (hereafter WMC). They define WMC as the following:

Working memory capacity (WMC) represents the ability of an individual to maintain focus on a primary task while also maintaining relevant information in working memory and retrieving relevant

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information from long-term memory, especially in the presence of distraction . . .

(Doolittle & Marianna 2008, p.514)

They further explain the literature that links WMC to the cognitive performance of various complex activities. Importantly, an individual’s level of WMC is related to various aspects of their learning. Following this logic, the interaction between mobile learning environments and the various levels of WMC demonstrated among individuals, is important in affecting the learning potential of those individuals.

Doolittle & Mariano (2008) measure the individual level of WMC among 87 undergraduate students. They then track the performance of these individuals, who naturally possessed different levels of WMC, in both stationary and mobile environments. To begin, individual students in a stationary learning environment performed at superior levels than students in a mobile learning environment. However, the interactive effects of WMC with learning environment were significant. The findings show that while individuals with high or low WMC performed at lower levels when shifted to a mobile learning environment, those individuals with low levels of WMC suffered drastic reductions in performance when making the transition from stationary to mobile learning environments.

These are valuable and interesting findings, but the reader must think carefully about what is being tested here, and how the use of mobile technology makes a difference to teaching outcomes. More specifically, the results do not mean the mobile device itself is the problem; it is the environment that is having a significant impact here. It is also important that this paper emphasises the potential for a wide variation in outcomes for different individuals. The following paragraph is a good summary of the conclusions:

The current results indicate that students who have poor attentional control, or who are susceptible to external distraction, are likely to be disadvantaged in mobile multimedia learning environments where distractions may be high. As the creation and application of mobile multimedia learning environments moves forward, it is important that individual differences be considered so that a portion of the population is not left behind.

(Doolittle & Mariano 2008, p.526)

While Doolittle & Mariano (2008) have contributed an important study that considers how different types of individuals might respond to mobile devices, it would also be worthwhile to consider the different
types of mobile devices themselves. The next paper to be discussed considers precisely this issue. In a very recent study, Morris et al. (2012) investigate the impact of tablet use on undergraduate student learning. In their study, Morris et al., planned and organised the allocation of a preconfigured tablet to a group of biology students. In addition to its preconfigured settings, the tablet also tracked the usage of each individual student. This last point underscores the purpose of the exercise, which was to identify the students’ use of the tablet device in their study activities. Importantly, the course itself was not adjusted in any way to facilitate easier use of the tablet device:

This study was purposely conducted without altering the curriculum, availability of learning resources, or teaching strategies to illustrate the experience of many students who will enter university campuses with a tablet device where the university has made no particular provision for learners with such sophisticated tools.

(Morris et al. 2012, p.97)

In their own review, the literature surveyed by these authors demonstrates significant variation in the extent of technology adoption and use by students in their scholastic activities, and notes a variance in recreational use (which is typically high), versus study utilisation, which can often be much lower. The method they apply is “controlled” in the sense that from the outset the intention is to orchestrate a clear intervention in the student activities.\(^7\)

A control period was established as the first 10 weeks of first semester, while a trial period was identified as 10 weeks in the second semester. 48 students were recruited for the study, 27 women and 21 men. The age range was 17 to 45 years, and a range of year levels was incorporated across a number of biological science programs. Furthermore, the students were all full-time. Out of the 48 student total, 25 actually received iPads (10 male and 15 female). iPad participants reported reduced usage of laptop computers or netbooks for learning.

One interesting result of the study was that students claimed that use of the device was convenient, particularly when on campus, and that little training was needed to enable use of the device. The authors claim

\(^7\) “Previous studies have quantified students’ use of technology, tools and services at a single point in time, but there is little empirical evidence measuring students’ changes in behaviour as a result of intervention with a mobile device. The aims of this study were to provide quantitative and qualitative data on the effect of providing undergraduate biological sciences students with a tablet device on their use of technology for learning and their study behaviours.” (Morris et al. 2012, p.97).
that these findings are supported by previous studies that highlight the integration of “mobile devices into classroom settings to complement fact-to-face teaching with positive results.” (Morris et al. 2012, p.105). Some other interesting results of the study are that students reported an increase in word processing and an associated reduction in the use of paper and pen. These findings suggest that perhaps students began typing lecture notes or even completing assignments on the iPad, rather than usual in-class writing. Furthermore, the students also reported a significant reduction in the use of printed materials, which again suggests they began using the mobile device to access their class reading. Perhaps the most significant finding of the study, in regards to the use of the device by the students, was the large extent to which students used the application known as Soundnote. This application allowed them to record the audio in their classes while taking written notes that were synchronised with the audio file.

This paper was an interesting contribution and presents honest findings about the addition of a mobile device to classroom activities. The findings themselves were somewhat mixed in terms of their support for the use of iPads by students. However, the results do suggest that with the further integration of online activities, i.e., discretionary incorporation of blended learning, the usage of the iPad would have been more extensive. In this regard, the reader should recall that the curriculum was not altered in any way. Finally, sample size was small, and in our own view there was selection bias in the sample as students self-selected for participation. However, it seems the authors are aware of this (Morris et al. 2012, p.99).

A recent article by Russell & Posada (2011) examines both mobile and online resources within curriculum design in the engineering discipline. It is important to note at the outset that this is an exploratory paper, in the sense that the contribution is to document the progress of using e-learning and m-learning. In this sense, it is a good exercise, and worth considering the various channels through which “e” and “m” technologies might be used. The paper was also instructive as it attempts to couch its investigation and analysis of e-learning and m-learning within some of the dominant educational theories. We will offer a brief introduction to these, before considering the detail of the paper.

- The first learning theory the paper identifies is individual learning. This is essentially the individual’s cognitive process,
and how discursive activities, such as lectures and tutorials, or perhaps even experiential processes, affect this cognitive process. This process may incorporate some conversational exchange between student and teacher.

- Second, social learning is perhaps more straightforward, and focuses on how people learn in a social context. Students might access knowledge that exists beyond any one individual, and instead in a social context. This theory of learning has indeed been applied to the “e-context”, and Russell & Posada cite Salmon (2000) as having presented a “5-step e-moderating model” that engenders social learning in an online context.

- Third, situated learning refers to the process by which an individual learns in a real work context, rather than a traditional classroom context. This is not always easy to create, beyond a real work placement experience, but it is possible to create an experience of situated learning in the academic environment, and can be achieved through such things as project work.

The paper is best summarised as an attempt to connect some of the educational theories to the various modes of available technology. This is a sensible task, and the authors admit this is a first step rather than a conclusive statement. In this the paper is instructive, as an indication of where things are currently at, but also highlights some difficulties in this literature. The authors explain that iPods are being used for a number of tasks, including classroom voting and peer marking. Importantly, they explain:

> We have also developed a mobile marking application that provides marking rubrics for iPod, iPad or iPhone linked to a web server. We have built a simple web application that allows the teacher to build a scoring rubric on items, activities or groups.  
> (Russell & Posada 2011, p. 1100)

This is, we think, the most important paragraph in the paper in terms of mobile learning. It demonstrates the authors’ awareness that any effective use of mobile device will require the use of some application that can be made available to students. The earlier discussed work by Morris et al. (2012) suggests that user friendly applications are the key to effective student use of mobile technology (i.e., the students use of the application Soundnote). Simply owning mobile devices is not sufficient, and using them meaningfully for the purposes of education requires these additional investments. The range of technological
applications is extensive, and categories of learning activity are identified: Mobile Devices, Online Tools, and Virtual Contexts. Significant effort was clearly made by the authors to create potential for usage of the devices.⁸

Although the paper offers an excellent summary of the range of combinations available, a limitation is its inability to demonstrate a coherent relationship between the various modes of electronic and mobile learning. Russell & Posada (2011, p.1104) Figure 3 titled “Learning technologies in engineering education as an open distributed knowledge system”, presents a flow chart of relationships between the various modes of learning: Individual Learning, Social/Team Learning, and Situated Learning, with the various learning technologies. The problem is that it is difficult to understand the relational and causal relationships between these things, and the flow chart does not clarify precisely how these fit together. It is a difficult task no doubt, but we think the authors can ultimately improve upon this.

A final paper to be considered is De-Marcos et al. (2010) who propose the use of a newly created tool to facilitate the use of mobile devices. The key to understanding their article is to understand the device that they have created. The specific device is intended as a tool for mobile self-assessment.⁹ Using both Java and XSLT transformation sheets, the authors devise a system whereby a web-based set of questions is presented for students to test their understanding of class material. Most importantly, the system is run through a mobile application that runs via students mobile phones. The technical details of the application created for the experiment can be found on pp.1070-

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⁸ Perhaps inadvertently, the authors highlight the time required to adjust the video-recorded lecture for the purposes of presenting to students:

In 2008 we videorecorded lectures for a software engineering course, combining the lecturer’s talk with material from his laptop (showing computer coding, animation software and web access). Each 1 hour lecture required 3-5 hours of post-editing work.

(Russell & Posada 2011, p.1102)

Although not the focus of the present review, this fact is one that is relevant to various plans to introduce online lectures that claim such tools save time.

⁹ Interestingly, they identify a similar weakness in the literature to that we have identified: a lack of systematic testing of the actual effectiveness of mobile learning. Consider the following quotation: “None of the previously cited research included similar surveys which would have enabled us to draw any real conclusions about the true effect of mobile self-assessment on learning actions, and our aim was to fill that gap” (De-Marcos et al. 2010, p.1070).
1073 inclusive. For the purposes of the current discussion it is sufficient to emphasise that the authors ensured it was created with minimal software requirements for the mobile devices owned by students. This is important in maintaining wide usage.

Three groups were used: two at secondary school and one at a tertiary level. We will focus on the results for this latter group, which was a university level Nursery course during a Life Sciences degree program. The specific learning objectives that were tested were primarily practical types of objectives. The authors report modest improvements for the experimental group in comparison to the control group, i.e., students who used the self-assessment application performed slightly better than those students who did not use the application (the control group). The final scores of the experimental group are higher, and the magnitudes range from 3.84% to 8.46% depending on the learning objective. It should be emphasised that none of these results are statistically significant, a likely product of small sample size (n = 28 for this group – largely impossible to obtain statistically significant results).

While the study did not generate the type of statistical results that are convincing to us, we think it still generates a number of important lessons. Firstly, the practical nature of the learning objectives in this case, meant that use of the mobile device for the purposes of self-assessment may not be appropriate. Secondly, the authors note some technical problems that occurred due to the variance in the type of device that different students possessed.

Having analysed a sample of key studies, we now look at the implications for teaching.

4. IMPLICATIONS FOR TEACHING

There is no doubt that during our teaching careers more and more use will be made of mobile technology for educational purposes. Although this area of education practice is still evolving, even at this early stage there are some salient lessons that can be learnt from the literature summarised above. To begin, mobile technology is likely to be popular with students, and the perceptions of students are important. If they are enthusiastic about the use of a technology in their learning, they are no doubt likely to obtain a better outcome. However, the student perception cannot be the sole focus. Much attention also needs to be devoted to measuring outcomes that are derived from the use of technology. Students can detect if the technology is not suited to the specific learning activity, and their reluctance to use mobile devices for
some tasks needs to be recognised and considered just as deeply as their enthusiasm for others.

The “big picture” issues of how m-learning relates to the dominant learning theories, also deserves more attention. Just as student perception should not be overemphasised, the perceptions of educators should not be too readily accommodated either. Reading some of these studies leads us to believe that there will likely be some “over-shooting” in the use of mobile technology during the next decade, as some overzealous educators allow themselves to be carried by the wave of demand that there is for more and more online and mobile educational experience. However, as scholars slowly start to investigate the use of technology in relation to some of the more established branches of educational knowledge, we believe there will be some “pull-back” as educators realise that “more” is not always “better”.

For the present, various lessons about how to use mobile technology can easily be identified. The student possession of mobile devices may not be sufficient for a beneficial m-learning experience. It is one thing to have students access data via their mobile devices, such as lecture notes, or reading summaries. But to really make use of the technology, some form of application is the best way to try and achieve a learning outcome. Furthermore, many students are still learning how to use a mobile device, and they may use different platforms to access information on their device. Therefore, in the design and use of mobile applications, the software demands need to be relatively simple, especially at these early stages. There also needs to be some support for technical challenges. We have noted from our own experiences using online assessment tools, students can be very frustrated and upset when technology breaks down. Finally, it is also clear that context matters. Although mobile devices can facilitate student learning at different locations, it does not mean learning can occur at any location. Some students will need an environment where distractions are limited. Students need to be encouraged to consider the appropriate types of environments to use their mobile device for educational purposes.

5. CASE STUDY OF DECISION-MAKING AT AN AUSTRALIAN UNIVERSITY

In this section we present a case study in which a highly successful School of Economics and Finance at an Australian university was effectively dismantled and its programs shut down as part of a strategy that embraced the kinds of ICT considered in the previous two sections.
This university was operating in an increasingly competitive and deregulated higher education market that no longer had any quotas on enrolments. The result was significant pressure on the revenue side of the university’s budget and this was addressed using a two-pronged strategy: aggressive reduction of operating expenditures; and a rebranding of the university’s educational product with an emphasis on the use of up to date educational technology.

Central to the first part of this strategy was that courses and subjects deemed to be ‘not attractive to students’ were to disappear from university offerings. Electives were to be cut as part of a process by which programs were deliberately streamlined down to the basic minimum of prescribed subjects. It was reported that 30 percent of all subjects that the university taught would no longer be offered. Under the second part of the strategy the university would reinvent itself to create a new brand which would differentiate its offerings from competitors. This approach embraced blended learning and courses in virtual mode. Significant investment was made in ICT that allowed students to access on-line materials with ease from both inside and outside the university, and a blended learning model was introduced for all courses. Whole courses were in fact slated for on-line delivery and blended-learning or ‘flipped’ strategies were employed in virtually all other courses by directive.10

These measures had a significant impact on the School of Economics and Finance which had until that point been one of the most effective and successful teaching schools within the university. Student numbers in this school had grown over the period 2004 to 2010 by 40 per cent. On the basis of comparative data on Equivalent Full Time Student Load it was the eighth largest School in the University. In Higher Degree and Honours student loads it was ranked sixth, while in terms of academic staff it was the fourth smallest.11 The School’s main postgraduate coursework program, the Master of Applied Finance (MAF), was the second largest program in terms of international student numbers in the university (the largest one being Nursing). Student demand for

11 In terms of Research Publications (sum of weighted Higher Education Research Data Collection points), per full time equivalent staff member, the School average was double the university average.
postgraduate coursework offerings led to a growth of subjects offered for study from 19 in 2007 to 39 in 2012. Student numbers in the MAF tripled from 2007 to 2012.

In terms of student feedback on teaching, by 2011 student surveys results had become outstanding, though this high level of student satisfaction was not always the case. Aggregate comparative data for 2005 showed that performance was below the university average. In summary terms, using the Student Feedback on Units data from 2005 onwards, the improvement in results is clearly apparent. In 2005.2 Q13 – ‘Overall Experience: Overall, I’ve had a satisfactory learning experience in this unit’ - was 3.8 (out of 5) and there were only two questions out of 13 which had a score of 4.0 or higher (two ‘green lights’). By 2009 there were 12 out of 13 questions with 4.0 or higher. This compares with the overall university result of having only three questions with 4.0 or greater. Note that these improved results were in the context of substantial increases in student numbers. So the improved student feedback came at a time when staff had been asked to teach a far greater number of students.

In comparative terms it was the second best performing School in 2011, following the School of Education, on the basis of Q13 – Overall Experience. On the 13 student feedback questions the School scored 8 greens and 5 yellows – equal best result, again with the School of Education. Of the responses all exceeded 3.8 (the criterion used in the AUQA audit) except feedback which was 3.79. The response rate was a healthy 61% (the university average was 53%). In terms of individual units, 54 units were assessed and of these 37 rated green (68.5%), 14 rated yellow (26%) and three units rated red (5.5%). Of the 54 units, 20 were postgraduate units and of those 15 (75%) were rated green. A green rating meant a student approval rating of 4 or more out of 5; a yellow rating was between 3.5 and 4 and a red rating was less than 3.5.

The concerted effort that was made by the faculty teaching within the School can also be identified in awards and citations. Since 2007 one staff member had been awarded the Carrick Citation Award for Outstanding Contributions to Student Learning. Another was awarded the Australian Learning and Teaching Council Citation for Outstanding Contributions to Student Learning while a third staff member was ranked 14th in a Lecturer of the Year Competition which attracted a total of 20,162 nominations from a field of 2,641 lecturers across all disciplines in Australia.
Mention might also be made of contributions to the scholarship of learning and teaching. The school hosted one economics teaching conference itself and regularly sent staff to present papers at other such conferences hosted around the country including the annual Australasian Teaching Economics Conference (ATEC) and the annual Quantitative Teaching and Learning Forum at the University of Melbourne.

Finally, the Peer Assisted Support Scheme (PASS) might be mentioned. Figures for spring 2011 show 439 of the School’s students participated in PASS sessions. This represented 17.6 per cent of all university PASS attendees. Economics was the leading School in terms of participation in this program. One of its long-term PASS facilitators was selected as one of the winners of the National PASS Outstanding Leader Awards and another of its PASS facilitators won the National Outstanding Senior PASS Leader/Mentor Award around this period.

In summary, it is clear that the Economics Program at this university was a highly successful teaching program. While beginning at a relatively low level of student satisfaction in 2005, by the middle of 2011 the program was receiving some of the very best survey results at the university, and many staff were actively engaged in teaching related conferences and research in the scholarship of teaching. Other factors indicative of the program’s success, which we have not discussed here, include the excellent outcomes with regard to graduate destinations, particularly for economics honours students. There is little doubt that the program was making significant contributions to quality teaching and learning outcomes.

Despite this impressive performance, an important result of the university wide strategy outlined above was that this economics program was effectively dismantled within a very short time-period. A full account of these events is not within the remit of this paper, but a short summary follows. In May of the year in question, it was announced that the School of Economics was to be abolished and merged with other schools into one large School of Business without separate departments. The Economics and Finance major, that in the same year attracted just fewer than 300 students, would also no longer be offered in the main undergraduate business degree. All these changes were effective from January 1 of the following year. The argument at the time was that the study of economics would be concentrated in the Bachelor of Economics degree alone. However, within 18 months of
this announcement a proposal was distributed recommending abolition of the B.Ec, B.Ec (Hons) and B.Ec/LLB programs effective within three months. Eleven staff from the School of Economics and Finance were regarded as surplus to requirements and applications for voluntary redundancies were sought, with eight staff subsequently leaving under these arrangements and another three through forced redundancies. The change proposal, in its original version, thus represented the disappearance of economics as a discipline from the university.

6. DISCUSSION
The changes outlined above constituted a mere subset of much wider organizational change implemented across the university around the same time, and while the processes involving this change could be discussed at length, it is the blended learning aspects of this change that we focus on here. This strategy was embraced with alacrity by university administrators. This can be contrasted with the puzzlement by academics that mostly were comfortable with face-to-face student contact in a traditional two hour lecture and one hour tutorial in most subjects. Moreover these ‘traditional’ approaches had proved to be highly successful. Academics were unclear as to what blended learning meant or if there was a substantial body of literature that strongly supported this approach. Our earlier discussion suggests that faculty scepticism of the efficacy of such programs is not without foundation.

Blended learning is promoted everywhere. It has been alleged that blended learning designs are central to securing a sustainable future for teaching units. Administrators may perceive blended learning as a means to cut costs. Launer (2010, pp.13-14) explains in detail why blended learning is not necessarily cheaper than face-to-face learning but also reveals the pedagogy behind it, namely, “constructivist learning theory” and we may well ask if our students fit the profile of the motivated, self-directed and reflective students that this model assumes. Experiences with non-face-to-face learning does indicate serious concerns with retention and failure rates unless students are mature and self-disciplined (see also Atchley, Wingenbach & Akers 2013). The paper by O’Connor, Mortimer & Bond (2011) chronicles in detail what not to do in implementing blended learning and the problems that occurred when it was introduced in a very large subject. It concludes
that blended learning might not lead to a reduction in face-to-face teaching at all (p.80).\textsuperscript{12}

The university embarked on an intensified campaign to introduce the extensive application of ICT for the purposes of both undergraduate and postgraduate teaching. The literature we have just surveyed indicates we should be very careful before we leap head-first into blended learning.\textsuperscript{13} This has not happened. Lectures are under threat. Student contact hours are being reduced and class sizes increased. Funding concerns had also impacted on tutorial sizes in the period during which the changes described above occurred with these class sizes increasing to 35 student per tutorial. Yet while there was little funding available for normal ‘standard’ teaching, there was significant funding available for capital works to transform normal classrooms into “social learning spaces”. The net effect seemed to be that rooms held fewer students than previously (although the rooms did become very colourful with beanbags and all sorts of e-devices available).

\section{7. CONCLUSION}

There is currently considerable concern in Australian universities around blended learning and staff workload. Blended learning facilitators and quality assurance officers have been hired in great numbers to torment staff and curriculum mapping projects are all the rage. Moreover, there are many other changes afoot in the teaching and learning space that absorb the time of academics. There is the threat from massive open online courses (MOOC) – but see (King 2013) – and the ever accumulating documentation required, often to satisfy external agencies like TEQSA that we are fulfilling our requirements under the

\textsuperscript{12} A sampling of the work that Professor Joe Wolfe, School of Physics, UNSW has done with his multimedia modules – Einsteinlight and Physclips – is instructive. He has won lots of awards for the outstanding quality of his online material but it has taken him many years and extensive resources to reach that level. In the contemporary rush to adopt blended learning we do not seem to have either the time or the IT support to replicate Wolfe’s quality outcomes.

Higher Education Standards Framework. Some of the frustration and annoyance related to this process is articulated by Oslington (2012):

The current obsession with learning objectives and graduate attributes is essentially about describing what universities are doing in language fashionable among the current regime of educational bureaucrats … lots of meetings, paper, and box ticking … this guff has little to do with the quality of what goes on at the educational coalface … I have never met a student who has actually read the guff in a course outline – at most they have a bit of a giggle before turning the pages to the course content and assessment. There is no real evidence that the current obsession with process makes any difference to the quality of education.

(Oslington 2012, p.50)

Craig Freedman, in an email to the authors dated 20th May 2013, added fuel to this fire:

Rent seeking and self-interest. This group of educational bureaucrats provide the appearance that the quality of education is checked and standards upheld. This accords well with the rise of faux accountability in Universities. Educational bureaucrats have established a cottage industry for themselves which has enabled them to hire more of their kind. To further their ends they have to push for unified standards and methods, a one size fits all approach. This allows them to tick off boxes set against each course and lecturer. It is a mistaken concern for homogeneous inputs instead of looking at outputs. An economist would claim that Universities state clearly what their objectives are and then let the lecturers figure out how best to achieve them. Given the diversity of skills, each should play to his or her strengths. There should only be some system of assistance for those lecturers not achieving reasonable results.

(E-mail correspondence, 20th May 2013)

One feels that sentiments such as those above will not stop the inevitable blended-learning tsunami and the increased bureaucratisation of teaching. It may be necessary to join the blended learning movement to survive as our traditional teaching styles are increasingly under threat. Our case study highlighted the success of an economics program, its speedy destruction, and the further hurried application of an ICT strategy that now seems to dominate university decision-making. In particular, our discussion emphasises the speed with which successful programs can be dispensed with, and the potential for the credulous adoption of new fashions and trends in higher education offerings and pedagogy, often without clear or convincing evidence in support of the changes. Indeed, the Australian university sector is in the midst of a turn
to “blended learning”, or applied ICT in education. The precise impact this will have on the teaching of economics in Australian universities is likely to be heterogeneous and unpredictable. Furthermore, it is unlikely that all these changes will be successful substitutes for many tried and tested methods. Economists, who are trained to be critical and analytical thinkers, and always inclined to rigorously test ideas and concepts empirically, will find much in these new approaches to be sceptical of in terms of their overall impact on student learning.

REFERENCES


TEACHING THE TWO-PERIOD CONSUMER CHOICE MODEL WITH EXCEL-SOLVER*

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ABSTRACT

This paper develops a tutorial exercise where students can solve and explore the basic two-period consumer choice model using Excel-Solver. It shows how the class exercise can be set up, how it can be used to teach comparative static analysis with an interactive diagram, and how borrowing constraints can be included. Pedagogical benefits of the approach are highlighted.

Keywords: Intertemporal consumer choice model, Excel-Solver, borrowing constraint.  
JEL classifications: A22, D91, C65.

1. INTRODUCTION

Advances in information technology over the last couple of decades has been remarkable. The presence of personal computers both in domestic and professional environments, as well as their increased capacity of memory and speed of calculation, has substantially altered education capabilities. The use of computers in higher education allows part of the time that was previously devoted to the study of specific analytical procedures for solving particular problems to be saved. This time can be devoted to other aspects of the curriculum and teaching can focus on the interpretation of results rather than simply on their computation.

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In economics, students’ work in computer labs comes to largely replace traditional laboratories in other experimental disciplines. The basic function of applied sessions in these labs is to improve students’ skills of intuitive judgment without the inconvenience of long and tedious calculations. The power of lab sessions can be summarized using the words of an old Chinese proverb: I hear and I forget; I see and I remember; I do and I understand. Within the range of available resources, such as statistical packages, mathematics programs and more general software, spreadsheets have become one of the more widespread uses of personal computers in undergraduate Economics. In particular, Microsoft’s Excel Solver has been described as a user-friendly and flexible tool for economic optimization (MacDonald 1996). Since the introduction of computers in the classroom, several authors have developed Excel spreadsheets to solve economics problems (Houston 1997; Mixon & Tohamy 1999; Nævdal 2003; Holger 2004; Strulik 2004; and Gilbert & Oladi 2011).

2. BACKGROUND AND CONTEXT

As it is well known, the economist Irving Fisher developed a model that allows economists to analyze how rational, forward-looking consumers make intertemporal choices. According to the model, when people decide how much to consume and how much to save, they consider both the present and the future. The more consumption they enjoy today, the less they will be able to enjoy tomorrow. In making this tradeoff, a consumer must look ahead to the income they expect to receive in the future and to the consumption of goods they hope to be able to afford.

The two-period version of the model is generally taught at the undergraduate level. Some macroeconomics textbooks that include this model are Abel, Bernanke & Croushore (2010), Burda & Wyplosz (2009) and Mankiw (2011). In general, students learn how to solve this model analytically, which in turn requires them to use some mathematical optimization tools. In this paper we introduce a complementary tutorial exercise where students can solve the basic two-period consumer choice model using Excel-Solver. Moreover, in order to improve student understanding, we include an interactive Excel diagram alongside the Excel-Solver worksheet.

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1 The two-period consumer choice model is also taught in microeconomics at the intermediate level. See, for example, Varian (2006).
Our paper moves in the same direction as Barreto (2009) who also solves the optimal consumption choice model with *Excel-Solver* and provides some comparative static analysis to study the effects of a change in the interest rate on saving. Our paper, however, makes four main contributions. Firstly, we provide the instructions for solving the intertemporal consumption problem starting from an empty worksheet. Thus, once students know how to solve the benchmark model, they can modify it and include other extensions like introducing a different utility function or including taxes on saving. Secondly, we also include comparative static analysis of changes in present and future income and preferences for future consumption. The basic model assumes that the consumer can borrow as well as save, yet for many people with limited access to credit such borrowing is impossible. We thirdly, therefore, add a borrowing constraint to the problem and analyze its implications. Fourthly, we provide a worksheet that allows the student to visualize in a graph both the benchmark model and a modified parameterization of it.

The model can be taught to students with or without a knowledge of calculus. In the first case, instructors can focus the teaching session using the *Excel* diagram. In the second case, the exercise can provide substantial benefits by removing long and tedious calculations and by providing a visual representation of comparative static analysis. In both cases, the exercise allows students to see how changes in the parameters of the model such as income and the interest rate affect consumption, saving and the consumer’s lifetime utility. The tutorial can be done in about one hour. Finally, after completing the tutorial, students can use the worksheet to do comparative static analysis on their own, improving their learning of key concepts in a dynamic and interactive way.

3. THE TWO-PERIOD MODEL
The model is taken from the fifth edition of Mankiw’s *Macroeconomics* textbook (2003, chapter 16). The intertemporal choice model includes the consumer constraints, his preferences, and how these constraints and preferences together determine his choices about intertemporal consumption and saving. It is assumed that the consumer lives only two periods. He is young in period one and old in the second period. The consumer earns income $Y_1$ and consumes $C_1$ in period one, and earns income $Y_2$ and consumes $C_2$ in period two. Moreover, the consumer has the opportunity to borrow or save in the first period to accomplish his
consumption purposes. Thus, consumption in one of the periods can be either greater or less than income in that period. In the first period, consumption equals income minus saving, that is:

\[ C_1 = Y_1 - S \]  

where \( S \) is saving. In the second period, consumption equals the second-period income plus the accumulated saving, including the interest earned on that saving. That is:

\[ C_2 = Y_2 + (1 + r)S \]  

where \( r \) is the real interest rate. Note that the variable \( S \) can represent either saving or borrowing and that the equations hold in both cases. If first-period consumption is less than first-period income, the consumer is saving, and \( S \) is greater than zero. If first-period consumption exceeds first-period income, the consumer is borrowing, and \( S \) is less than zero. For simplicity, we assume that the interest rate for borrowing is the same as the interest rate for saving.

Isolating \( S \) in constraint (1) and substituting it into (2) gives the following intertemporal budget constraint:

\[ C_1 + C_2/(1 + r) = Y_1 + Y_2/(1 + r) \]  

This implies that the present discounted value of consumption, that is the sum of today’s and tomorrow’s consumption valued in terms of goods today, must equal the present discounted value of the income earned.

The consumer’s lifetime utility regarding consumption in the two periods can be represented by the following equation,

\[ U(C_1, C_2) = \ln(C_1) + \beta \ln(C_2) \]  

where \( \beta \) is between zero and one and measures the consumer’s degree of impatience for consumption during the first period. When it is close to one, utility derived from a unit of consumption in period 2 is almost equal to the utility derived from a unit in period one, and therefore the degree of impatience is low. On the contrary, when it is close to zero, the utility derived from \( C_1 \) has more weight, which implies that the consumer is more impatient.

After defining the consumer’s intertemporal budget constraint and utility, we can consider the decision about how much he should
consume. The consumer would like to end up with the best possible combination of consumption in the two periods—that is, on the highest possible level of utility. To do that the consumer must choose the two levels of consumption that maximize his utility subject to the intertemporal budget constraint:

$$\max_{C_1, C_2} U(C_1, C_2) = \ln(C_1) + \beta \ln(C_2)$$  \hspace{1cm} (5)$$

subject to

$$C_1 + C_2/(1 + r) = Y_1 + Y_2/(1 + r)$$

In general, introductory macroeconomics text books discuss the optimal condition for this problem diagrammatically as shown in Figure 1. This indicates that the optimal allocation of consumption \((C_1, C_2)\) lies on the budget constraint at the point where it just touches the highest possible indifference curve.

**Figure 1: The Consumer’s Intertemporal Consumption Problem**

In more advanced undergraduate macroeconomics courses, students also learn to solve this problem using analytical tools such as the Lagrange function:
Teaching the Two-Period Consumer Model

\[ L(C_1, C_2, \lambda) = \ln(C_1) + \beta \ln(C_2) \]

\[-\lambda [C_1 + C_2 / (1 + r) - Y_1 + Y_2 / (1 + r)] \quad (6)\]

where the first order conditions for a maximum are:

\[ \frac{\partial L}{\partial C_1} = \frac{1}{C_1} - \lambda \quad (7) \]

\[ \frac{\partial L}{\partial C_2} = \frac{\beta}{C_2} - \frac{\lambda}{1 + r} \quad (8) \]

\[ \frac{\partial L}{\partial \lambda} = -\frac{C_1 - C_2 / (1 + r) + Y_1 + Y_2 / (1 + r)} \quad (9) \]

Finally, using conditions (7) to (9), the Euler condition for optimality can be obtained as follows:

\[ \frac{C_2}{\beta C_1} = 1 + r \quad (10) \]

This shows that the consumer chooses consumption in the two periods so that the marginal rate of substitution (or the slope of the indifference curve in Figure 1) equals the marginal rate of substitution plus the real interest rate (the slope of the budget line in the same figure).

4. OPTIMIZATION WITH EXCEL-SOLVER

With the help of Excel-Solver we can introduce a complementary classroom exercise that solves (5) for the best combination of consumption in the two periods that the consumer can afford. To do this, we use Solver’s Generalized Reduced Gradient Nonlinear Optimization Method (GRG Nonlinear). We provide instructors and students with an Excel worksheet that will be progressively modified as the exercise develops. This worksheet contains the basic set-up for doing comparative statics and interactive graphical analysis and is shown in Figure 2. First, it is necessary to find the initial solution of the two-period model which we do using Table 1 as shown in Figure 2. We can then undertake some comparative static analysis which is shown in Table 2 which appears in Figure 3.

(a) Initial Solution

Table 1, shown in Figure 2, sets up the initial optimization problem of the representative consumer. Rows 5 to 8 in column C include standard parameter values that we introduce. The rate of time preference, \( \beta \), is
0.85; the interest rate is 0.25; income $Y_1$ is 1000 and $Y_2$ is 2000. To make the analysis simple, we assume that all variables are real. That is, they are adjusted for inflation. We introduce the initial values to the present and future consumption in rows 11 to 12 of column C (we set them at 500 units but this is arbitrary). The utility function is introduced in cell C21 while the intertemporal budget constraint and the value of saving are included in rows 15 and 18 of column C, respectively.

Now we are ready to use Solver. Choose Solver from the Data menu in Excel 2010.² The Solver Parameters window will open. Set the Objective Cell C21 to the location of the objective function value which is the utility function in our case, select Max, and set the Changing Variable Cells C11 and C12 to the locations of the decision variables $C_1$ and $C_2$ in Table 1. Now we need to introduce the constraint (3). Go to the Subject to Constraints box and select Add. The Add Constraint window will appear. In this window, we tell the solver that cell C15 must be equal to 0. Then select OK since there are no more constraints to add. You will return to the Solver Parameters window as shown in Figure 2. Finally, introduce the value for saving in Cell C18.

At this point, we have defined all the necessary components to solve the model. In the Solver Parameters window click Solve. A window will appear telling us that Solver has found a solution. Select Keep Solver Solution and click OK. We just solved the consumer optimization problem as shown in Table 1 of Figure 3. As you can see, the consumer has maximized his utility by consuming 1405 units when he is young and 1493 units during his old age. Since his income is lower than his consumption during the first period, the consumer borrows 405 units. Also notice that the value of the cell C15 is equal to zero, implying that the consumer satisfies the intertemporal budget constraint. There is also an Excel graph that shows the initial solution. Both, the initial budget constraint and the initial utility curve appear in continuous lines.

Comparative Static Analysis

Now, we can perform some comparative static analysis by modifying the parameters of the model. To do this, we first copy the values of the parameters as well as the initial solution of $C_1$ and $C_2$ in Table 2. We

also need to copy the utility function, the intertemporal restriction and the expression of saving from Table 1 to Table 2 as it appears in Figure 4.

*Higher Present Income, \( Y_1 \), and Future Income, \( Y_2 \)*

Now we can start by modifying present income \( Y_1 \). In this case, we need to include the new value of the present income parameter in the
corresponding cell, in this case F6, and call the solver again. Set the *Objective Cell F26* to the location of the objective function value, and set the *Changing Variable Cells* F11 and F12 to the locations of the decision variables $C_1$ and $C_2$ in Table 2. Go to the *Subject to Constraints* box and select *Change*. The *Change Constraint* window will appear. In this window, we tell the solver that cell F15 must be equal to 0. Then select OK since there are no more constraints to add. You will return to the *Solver Parameters* window as shown in Figure 5.

In Figure 5 we can see how the increase in first period income ($Y_1$) from 1000 to 1500 increases the consumption in the first period from 1405 units in Table 1 to 1676 in Table 2, while the consumption in the second period is increased from 1493 to 1780, respectively. As a result, the level of utility increases from 13.460 to 13.786 units. The *Excel* graph shows both the final budget constraint and utility function in dashed lines that can be compared with the initial solution shown in continuous lines. Notice that, in this case, the individual borrows 176 instead of 405 and still pays an interest rate, $r$, of 25%. Thus, a higher current income increases saving or, equivalently, reduces borrowing.

Solving comparative static analysis can be done by modifying the rest of the model’s parameters and comparing the new solution with the initial one that appears in Table 1. For example, the effect of a higher future income on consumption and saving is shown in Figure 6. In this case, we first restore $Y_1$ to its initial value 1000 in Cell F6 and then increase $Y_2$ from 2000 to 2500 in cell F7. Similarly to the case of an increase in the current income, a higher future income increases both...
present and future consumption. In this case, $C_1$ increases from 1405 to 1522 while $C_2$ increases from 1493 to 1723, which implies an increase in the utility level from 13.460 to 13.725 units. Current consumption increases because, given the interest rate, $r$, is 0.25, the individual borrows more money (622 instead of 405 in the initial solution). Thus, higher future income decreases saving or equivalently, increases borrowing.

**Higher Interest Rate, $r$**

Figure 7 shows that an increase in the interest rate from 25% to 50% reduces the consumption in the first period from 1405 units in Table 1 to 1261 units in Table 2, while the consumption in the second period is increased from 1493 to 1608, respectively. Since the consumer is a borrower and borrowing money becomes more expensive, the consumer reduces it, which in turn reduces $C_1$. As a result, the level of utility falls from 13.460 to 13.415 units because the consumer is less inclined to defer consumption to his old age.

**Lower Preferences for Future Consumption, $\beta$**

Figure 8 shows what happens when the individual reduces his preferences for future consumption. In this case, only the shape of the indifference curve is changed while the budget constraint remains unchanged. As expected, in the new optimal point, future consumption is reduced from 1493 to 1083 while $C_1$ increases from 1405 to 1733 financed with an extra borrowing of 328 monetary units. Total utility falls from 13.460 to 10.952.
(b) The Borrowing Constraint

Until now we have assumed that the consumer can borrow as well as save. The ability to borrow allows current consumption to exceed current income. When the consumer borrows, he consumes some of his future income today. Yet for many people such borrowing is impossible. For example, an unemployed person wishing to buy a car would probably be unable to finance this consumption with a bank loan. Let’s, therefore, solve the model under a situation where the consumer cannot borrow. The inability to borrow prevents current consumption
Teaching the Two-Period Consumer Model

Figure 8: Effects of an Increase in Preference for Current Consumption

from exceeding current income. A constraint on borrowing can therefore be expressed as:

\[ S = Y_1 - C_1 \geq 0 \]  

(11)

This inequality states that consumption for the consumer must be less than or equal to his income (period one). This additional constraint on the consumer is called a borrowing constraint or, sometimes, a liquidity constraint. We next introduce this constraint into the optimization problem (5):

\[
\begin{align*}
\max_{C_1, C_2} & \quad U(C_1, C_2) = \ln(C_1) + \beta \ln(C_2) \\
\text{subject to} & \quad C_1 + C_2/(1 + r) = Y_1 + Y_2/(1 + r) \quad \text{and} \\
& \quad S = Y_1 - C_1 \geq 0
\end{align*}
\]

(12)

Solving the model analytically under the scenario of borrowing constraint is not straightforward as in (5). In this case, more advanced methods may be required to solve this problem. Fortunately, Excel-Solver can solve the problem by introducing a new restriction to the optimal problem.

In excel, we say “Yes” to the borrowing constraint condition in cell F20 and introduce this new restriction in cell F23 of Table 2. Then, we add this constraint in Excel-Solver by Clicking on the Subject to
Constraints box and select Add. The Add Constraint window will appear. In this window, we tell the solver that cell F23 must be higher than or equal to 0 and select OK (there are no more constraints to add). It will return to the Solver Parameters as in Figure 9. In the Solver Parameters window click Solve. A window will appear telling us that Solver has found a solution. Select Keep Solver Solution and click OK.
We have solved the consumer optimization problem under a *borrowing constraint* as shown in Figure 10. Since the borrowing constraint is binding in this case, first-period consumption equals first-period income. The level of utility is reduced from 13.415 to 13.369 units because the consumer would like to borrow to consume more in the first period (as Table 1 shows) but he is not able to do it. Finally, the *Excel* graph shows that there is a corner solution. Notice that, the final budget constraint (dashed line) indicates that $C_1$ cannot be higher than 1000 units.

5. CONCLUSION
The accessibility and flexibility of *Excel* spreadsheets gives economics instructors a great tool to complement the traditional analysis of economic problems. With this tool, applications that avoid long and tedious calculations can be easily designed to enhance meaningful learning. In this paper we have shown how to solve the basic two-period consumer choice model using a spreadsheet and *Excel-Solver* and illustrated the problem using an example from Mankiw’s macroeconomics textbook. While completing the proposed exercise, students can explore the main features of the model and learn key concepts in a more dynamic and interactive way.

REFERENCES


INTRODUCTORY POLITICAL ECONOMY
SUBJECTS IN AUSTRALIAN UNIVERSITIES:
RECENT TRENDS AND POSSIBLE FUTURES*

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Swinburne University

ABSTRACT

This paper provides a stocktake of introductory political economy courses taught within Australian universities as at 2012, extending similar work undertaken in 2005. It compares the situation in 2012 to that in 2005 and analyses key aspects of political economy courses, including institutional location, enrolments, course content, and the degree programmes to which such courses belong. A key question examined is whether political economy has better prospects in social science faculties as opposed to its traditional home in faculties of business or commerce. The paper also considers some of the factors influencing the availability of political economy courses including incentives generated by the structure of the Australian Research Council’s Excellence in Research Australia (ERA) ranking regime.

Keywords: Heterodox economics, political economy, introductory economics, economics curriculum.

JEL classifications: A20, A22.

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1. INTRODUCTION
This paper provides a stocktake of introductory political economy courses taught within Australian universities as at 2012, extending similar work undertaken in 2005 (See Argyrous 2006). It compares the situation in 2012 to that in 2005 and analyses key aspects of political economy courses, including institutional location, enrolments, course content, and the degree programmes to which such courses belong. A key question examined is whether political economy has better prospects in social science faculties as opposed to its traditional home in faculties of business or commerce. The paper also considers some of the factors influencing the availability of political economy courses including incentives generated by the structure of the Australian Research Council’s Excellence in Research Australia (ERA) ranking regime.

The paper is structured as follows. Section 2 defines the scope of what we mean by “political economy” courses and compares them briefly with mainstream economics courses. Section 3 provides some justification for our focus on courses at the introductory level and Section 4 adds additional context by looking at some broad trends within Australian economics education at the university level. Section 5 then considers the results of our survey of introductory political economy courses at Australian universities. Section 6 discusses the impact of ERA on the availability of political economy courses, and Section 7 offers some overall conclusions.

2. POLITICAL ECONOMY AND MAINSTREAM ECONOMICS
Political economy (PE) examines economic relations within society taking into account a broader range of factors than does mainstream economics. Mainstream economics, otherwise known as the neoclassical school, explains economic phenomenon as the result of decisions made by individual economic agents whose sole objective is to maximise utility subject to resource constraints. PE on the other hand allows economic agents to have objectives in addition to the pursuit of utility (or “pleasure”) and recognises that different types of agent may have different types of objective. Such objectives might include maintaining a minimum standard of living, accumulating wealth and social status, protecting their level of economic influence or simply adhering to habitual modes of economic behaviour.
PE also recognises the operation of power relations within society that impinge upon individual choices and acknowledges that economic phenomena are affected as much by structures at the macroeconomic level as they are the result of choices made at the level of the individual. PE is also interested in a broader set of questions than traditional economics. In addition to explaining the forces determining the prices of individual goods and services, the general price level, the volume of production in a country, the rate of economic growth, the level of unemployment or the amount of trade between one country and another, PE pays greater attention to the distribution of wealth and income, the degree of poverty in a country, the impact of economic activity on women, racial minorities and the environment, and other questions of social significance. It is thus fair to describe PE as examining economic questions within a more clearly social context. It also tends to value a range of methods for looking at these questions rather than the singular application of optimisation algorithms to choices framed as mathematical problems. In this sense it tends also to be pluralist in its approach to the study of economic issues.

One definition of PE that reflects these features has been developed by O’Donnell (2009).¹ This tri-faceted approach is worth quoting in full:

Firstly, political economy is a social science that is open to, and engaged with, all disciplines relevant to the study of society — other social sciences, the humanities and even the natural sciences. This puts PE in fruitful, co-informing dialogues with history, politics, psychology, sociology, philosophy, language, thermodynamics, biology, climate science and so on. The contrast is with orthodox or neoclassical economics which, in viewing itself as self-sufficient and as ‘queen’ of the social sciences, isolates itself from learning from other disciplines. Secondly, given the permanence of controversy and debate in the study of economic phenomena over the last 250 years, PE recognises the existence and importance of competing schools of thought. This makes it intellectually pluralist in orientation. In the 1970s, the main schools that drew our attention were neoclassicism, (Post) Keynesianism, (Old) Institutionalism and (Western) Marxism. Nowadays, a more complete list also includes, inter alia, Ecological, Behavioural, Neo-Ricardian, Austrian and Feminist economics, all of which have significant arguments about market economies and the social science of economics. Note that, then, now and in principle, PE includes orthodoxy [neoclassical economics], for students need it as much as other perspectives in order to engage with the world. Again,

¹ For other definitions see Stilwell (1988), Tabb (1999) and Thornton (2013b).
the contrast is with the monism or fundamentalism of neoclassicism which portrays itself as the one true route for economic science. Thirdly, PE embraces different modes of analysis so long as they are logical and intellectually rigorous, and their strengths and weaknesses appreciated. More specifically, both discursive and mathematical reasoning are welcomed. This avoids the excessive reliance of neoclassical theorising on mathematics as the best way of distilling economic understanding.

This is not only a good definition of \textit{PE}, but it also captures the essence of orthodox (neoclassical) economics from which \textit{PE} tries to distinguish itself, at least as taught to introductory undergraduate students. It is because of the role of the different perspectives identified by O’Donnell within \textit{PE} that it is increasingly referred to as ‘heterodox economics’ (See Thornton 2010, 2013b) but we prefer the term \textit{political economy} because this reflects the role of politics and power relations within the discipline which we believe to be of considerable importance.

Most economics courses taught in Australia (and in Western economies generally) today focus on mainstream economics. There has been a noticeable decline over the last thirty years or so, in the teaching of alternative approaches to economics generally and also in the teaching of the history of economic thought and economic history (see Boot 1997 and Millmow 2009). Some of the reasons for this sidelining of alternative approaches are explored in Lee & Lavoie (2013). But while a larger proportion of traditional economics courses is taught within Australian universities, it is worth noting that these courses tend to be rated very poorly by students (Guest & Duhs 2002). Ward \textit{et al.} (2000, p.76), drawing on survey evidence, argue that:

\begin{quote}
Economics is poorly perceived by potential students. It is viewed as: abstract and theoretical, difficult to study, rigorous and dull, thus reducing interest, unexciting, boring and lacking intrinsic interest, not relevant to “real world” or “real life” issues, lacking an ethical dimension, not being associated with a high profile profession or group of professions and reducing career prospects.
\end{quote}

By contrast, student evaluations for political economy subjects are often very high. Stilwell (2011b) cites student survey responses within the Faculty of Economics and Business at the University of Sydney in 2003-7 in which political economy subjects produced the highest average scores for ‘overall course satisfaction’ within the Faculty compared with orthodox economics subjects which produced the \textit{lowest}
average scores. Subjects taught by other departments such as Accounting, Finance, Government, Industrial Relations, Marketing and Econometrics within that Faculty received scores between these two extremes.

Stilwell (2006) also observes that attrition rates in economics courses tend to be fairly dramatic. Many hundreds of students undertake first-year economics courses each year in Australia, often as a compulsory requirement within a business degree, yet this huge catchment of students results in small numbers progressing to majors in economics and only a handful of students undertaking study at the honours level. Millmow (2002, 2009) also argues that interest in economics by students entering university has been consistently in decline for the last 20 years.

It is thus curious that an approach to the study of economics which acknowledges a broader range of explanatory factors and employs a greater variety of methodological approaches to explain economic phenomena should be better received by students and yet be consistently marginalised by the economics profession and by university administrations.

3. THE IMPORTANCE OF INTRODUCTORY COURSES
The detailed consideration we provide of political economy courses in Section 5 below focuses on courses at the introductory level. We define these courses in a straightforward way to be those in which students first experience a particular subject area at university in an extended way, and we argue that they warrant special analysis for at least two important reasons. The first is that such courses provide students with an intellectual foundation for further study in that area. Once these foundations are laid, the existence of a kind of path-dependence in human cognition implies that students will begin to think in a particular way about that subject area and changing this may not be very easy. The second is that introductory courses provide teachers with the opportunity to capture students’ interest in a particular field. If such courses are taught well, with significant student engagement, relevance to real world issues, and in a way that demonstrates genuine insight into the way the world works, students may be prepared to undertake further study in that area. Conversely, if teachers do a poor job of these things, students may be put off the area permanently.

The role of introductory courses thus indicates that teaching political economy to large numbers of students at the introductory level is a
matter of strategic, intellectual and practical importance. In particular, it is probably the key first step towards establishing a major or programme in political economy at a new institution. Typically, political economy, when it is allowed to be taught at all, is confined to upper year electives. Given the discussion above, this implies that students’ thinking about economics will tend to be fashioned along mainstream lines because they will have been exposed to mainstream ideas such as equilibrium and rationality in introductory courses. This can “set up an analytical confusion that captivates the student more or less forever” (Bernstein 2004, p.33) so that they are likely to struggle in fully understanding or accepting alternative ideas as legitimate when they encounter them later in their degree. This is well articulated by Keen (2001, pp xii-xiii):

The catalyst for my escape from this dogma was extremely simple: my first-year microeconomics lecturer [Frank Stilwell] pointed out a simple but glaring error in the application of conventional theory … Had I come across that fragility in my honours or postgraduate education, which is when students normally learn such things, I would quite possibly have been willing to gloss over it, as most economists do. Instead, because I learnt it ‘out of sequence’, I was immediately suspicious of the simplistic statements of economic principle.

Furthermore, if political economy courses are confined to upper electives, there is a real risk that students may have already been turned off the study of economics by virtue of having done first-year introductory orthodox subjects.

It is worth noting that the differences in student ratings of conventional economics and PE courses discussed in the previous section were most extreme at the first-year level. That responses should be polarised at this level probably indicates that self-selection occurs after first year so that students with the most negative reaction to first-year orthodox subjects simply do not continue with the study of economics. The positive student feedback for introductory political economy courses thus suggests that students are not uninterested in economics per se, but rather with the way it is taught in conventional economics courses and that we may be losing an important constituency because political economy is not being offered at the introductory level.
4. GENERAL TRENDS IN THE AUSTRALIAN ECONOMICS CURRICULUM

A look at economics courses taught at Australian universities over the last thirty years or so indicates that alternative approaches to economics make up a shrinking proportion of courses over this period. The general trend is thus towards narrowness and away from plurality. Table 1 classifies all economics courses offered at Australian universities in 1988 and 2011 into a number of broad categories. This table indicates a clear decline in the proportion of courses that could be broadly described as “Economics as a Social Science” from 30.8% of courses in 1980 to 14.1% of course in 2011, with a corresponding increase in the proportion of mainstream and neoclassical courses over the same period. It is notable, however, that political economy is the only sub-discipline within the social science ‘wing’ of the economics discipline that has not been in decline (increasing by 3.2 per cent).

Table 1 Economics Curriculum in 1980 and in 2011 by Sub-category

<table>
<thead>
<tr>
<th>Course type</th>
<th>1980</th>
<th>Per cent subjects</th>
<th>2011</th>
<th>Per cent subjects</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics as a Social Science</td>
<td>288</td>
<td>30.8%</td>
<td>229</td>
<td>14.1%</td>
<td>-16.7%</td>
</tr>
<tr>
<td>Economic History</td>
<td>181</td>
<td>19.3%</td>
<td>84</td>
<td>5.2%</td>
<td>-14.2%</td>
</tr>
<tr>
<td>Development Economics</td>
<td>39</td>
<td>4.2%</td>
<td>32</td>
<td>2.0%</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Political Economy</td>
<td>24</td>
<td>2.6%</td>
<td>94</td>
<td>5.8%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Comparative Economic Systems</td>
<td>22</td>
<td>2.4%</td>
<td>3</td>
<td>0.2%</td>
<td>-2.2%</td>
</tr>
<tr>
<td>History of Economic Thought</td>
<td>22</td>
<td>2.4%</td>
<td>16</td>
<td>1.0%</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>2.9%</td>
<td>93</td>
<td>5.7%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Open</td>
<td>19</td>
<td>2.0%</td>
<td>68</td>
<td>4.2%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Eclectic</td>
<td>8</td>
<td>0.9%</td>
<td>13</td>
<td>0.8%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Modern Hybrid Economics</td>
<td>0</td>
<td>0.0%</td>
<td>12</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Mainstream Economics</td>
<td>621</td>
<td>66.3%</td>
<td>1307</td>
<td>80.2%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Neoclassical Economics</td>
<td>404</td>
<td>43.2%</td>
<td>1015</td>
<td>62.3%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Econometrics</td>
<td>163</td>
<td>17.4%</td>
<td>216</td>
<td>13.3%</td>
<td>-4.2%</td>
</tr>
<tr>
<td>Mathematical Methods</td>
<td>54</td>
<td>5.8%</td>
<td>76</td>
<td>4.7%</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>936</td>
<td></td>
<td>1629</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This is cause for some encouragement, though it should be noted that this growth in political economy course offerings has been largely outside of traditional centres of economics teaching i.e. economics departments and business schools (See Argyrous 2006; Thornton 2012, 2013a & 2013b). The most dramatic example of this is of The Department of Political Economy at the University Sydney, which expanded dramatically after moving into the Faculty of Arts. This department now teaches 41.5 per cent of all political economy subjects in Australian universities (Thornton 2013b). Its 2,500 enrolments across 38 subjects offer an encouraging example for institutional independence and intellectual differentiation.

Why has the growth in political economy teaching been outside of traditional centres of economics teaching? Part of the explanation is the intellectual suppression of political economy that often occurs within increasingly mainstream departments. Another part of the explanation may be that that the core constituency for PE may be in social science (rather than business) faculties. Thornton (2013a) surveyed students at LaTrobe University at the end of their first year of study in 2012. He asked about the kinds of economics courses these students might be interested in taking later in their degrees. Results from the survey are shown in Table 2 and they suggest strong signs of unmet demand for

Table 2: Student Preferences for Future Economics Courses

<table>
<thead>
<tr>
<th>Economic Sub-discipline</th>
<th>Number Students</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics of Developing Countries</td>
<td>90</td>
<td>58%</td>
</tr>
<tr>
<td>Comparative Economic Systems</td>
<td>81</td>
<td>52%</td>
</tr>
<tr>
<td>History of Economic Thought</td>
<td>63</td>
<td>40%</td>
</tr>
<tr>
<td>Economic History</td>
<td>57</td>
<td>37%</td>
</tr>
<tr>
<td>Heterodox Economics</td>
<td>54</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Total for ‘Economics as a social science’</strong></td>
<td><strong>345</strong></td>
<td></td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>70</td>
<td>45%</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>41</td>
<td>26%</td>
</tr>
<tr>
<td>Econometrics</td>
<td>17</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Total for ‘Mainstream economics’</strong></td>
<td><strong>128</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source:* Survey data collected by Tim Thornton at La Trobe University, November 2012.
political economy within social science faculties. Of particular note was that of the 156 students that participated in the survey, over half indicated that economics was a subject they wished they knew more about, with 83% clearly indicating that they were more likely to enrol in subjects in economics if they were taught from a social science (political economy) perspective within a social sciences faculty.

Such findings provide strong *prima facie* evidence for the idea that political economy should seek greater independence and differentiation from traditional centres of economics teaching: independence in the form of a separate base within social science faculties; differentiation in conceiving of itself as a separate academic discipline (the discipline of political economy).

5. POLITICAL ECONOMY TEACHING IN AUSTRALIAN UNIVERSITIES

In early 2013 we collected data about the characteristics of all political economy courses offered in Australian universities. Details of the overall design of this project and its general results may be found in Argyrous & Thornton (2013), but here we focus on data from that project related specifically to introductory political economy courses.

Table 3 provides a list of all introductory *PE* courses offered by Australian universities in 2005 and 2012. While this table indicates that the number of *PE* courses was relatively stable across this period, closer analysis shows substantial changes in key features of the courses offered. Less than half of the introductory subjects that existed in 2005 were still running in 2012. This fact is consistent with a 2012 general survey of Australian political economy that found these courses depend on the personal commitment and initiative of individual staff members - as opposed to reflecting a sustained institutional commitment to offer political economy subjects (see Thornton & Argyrous, 2013). One may thus conclude that courses come and go, depending on the presence and availability of particular staff. In fact, the number of universities offering introductory *PE* courses has fallen from fourteen to eleven. The smaller number of universities offering multiple courses suggests that growth has focused on staff at some institutions leveraging the situation to offer *PE* as a ‘service’ subject within a range of different programmes/degrees. In terms of teaching bases for these courses, there has been a significant shift away from faculties outside the Business/Commerce field. Unlike 2005, where there was a slight majority of introductory *PE* courses in faculties of arts, social
<table>
<thead>
<tr>
<th>University</th>
<th>Course Name</th>
<th>2005</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queensland</td>
<td>ECON1100 Political Economy &amp; Comparative Systems ECON2110 (2012)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Queensland</td>
<td>POLS2401 Politics and the Economy in Australia</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sydney</td>
<td>ECOP1001 Economics as a Social Science</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>UNSW</td>
<td>PECO1000 Introduction to Political Economy</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>UNSW</td>
<td>ECON3119 Political Economy</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>UWS</td>
<td>200065.1 Political Economy</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ANU</td>
<td>POLS1004 Money, Power, War</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Ballarat</td>
<td>BE703 Economic Policy in Australia</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Charles Sturt</td>
<td>ECO310 Economic Philosophy and Policy</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Macquarie</td>
<td>ECON385 Contending Perspectives in Contemporary Economics</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Monash</td>
<td>PLT2910/3910 Australian Political Economy</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Queensland</td>
<td>SWSP2244 Social Aspects of Economic Issues</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td>POLI1009 Political Economy and Social Policy</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>UNSW</td>
<td>SLSP/PECO2000 State and the Economy</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Wollongong</td>
<td>POL319 Political Economy in the New Millennium</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>La Trobe</td>
<td>ECO3/4CAE Competing Approaches in Contemporary Economics</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Macquarie</td>
<td>SOC182 Economy and Society</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Melbourne</td>
<td>ECON10002 Seminar in Economics and Commerce A: Classical Political Economy and Economic Liberalism</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Melbourne</td>
<td>POLS20031 Political Economy</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Queensland</td>
<td>ECON1120 Economics of Social Issues</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Queensland</td>
<td>ECON3540 Evolution of Economic Systems</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Southern QLD</td>
<td>POL2000 Political and Economic Ideas</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>UTS</td>
<td>23623 Alternative Perspectives in Contemporary Economics</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>UWS</td>
<td>200532 Government and the Economy</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Wollongong</td>
<td>ECON 219 Economic Essentials for Business Innovation</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

**Total**                                               | 16   | 17   |

sciences, and humanities, in 2012, there were only five of the seventeen courses from such faculties. Political economy has not been able to continue the growth in these ‘non-traditional’ faculties. This is an interesting finding and it sits awkwardly with so much evidence that
indicates that the prospects for political economy are best in the social sciences. This anomaly therefore warrants further explanation.

The decline of introductory political economy in arts/social science faculties since 2005 is a statistical outlier, in that if one takes political economy subjects as whole (not just introductory political economy) then the majority of subjects are indeed taught outside business faculties (Thornton 2013b). However, such an anomalous finding offers a useful cue to acknowledge that while the prospects for political economy in social science faculties are generally promising, this does not mean that it is always easy, or that setbacks cannot occur. One or two common problems seem to arise with any attempt to establish new political economy courses. First, other staff within social science faculties may fail to support, or indeed may actively oppose, the establishment of such courses. On this point it should be noted that in his history of the social sciences in Australia, Macintyre contends that established departments have often attempted to thwart the development of new departments (Macintyre 2010). Secondly, other social scientists may neither fully understand nor appreciate the political economy vision, particularly when they find themselves competing with political economists for resources, students and spaces on course grids.

The obvious response to such potential problems is to persuade other social scientists of the demonstrable intellectual, strategic, and practical benefits of political economy. It should not, however, be assumed that there will be resistance since there are documented instances of other social scientists actively encouraging the presence for political economy courses in their faculty (See Argyrous 2006; Butler, Jones & Stilwell 2009; and Thornton 2013b). This mixed evidence of potential openness and resistance indicates that much may depend on the proclivities of the individuals, culture and priorities within a particular faculty at a particular point in time.

When we consider student course enrolments, we see that the highest enrolment for an introductory political economy subject was for ECOP1001 Economics as a Social Science offered by the Department of Political Economy at the University of Sydney. This has had a long-term average enrolment of about 400 students but in recent years that average has increased to over 600. Why is this course so large and why have there been recent increases to even larger average enrolments? A number of factors appear to be relevant: the savvy choice of subject name Economics as a Social Science; active promotion of the subject
during orientation week (Rodrigo 2009); the strength, size and prestige of the University of Sydney; and the long-history of very strong student satisfaction, support and defence of this subject (something that dates all the way back to the subject’s inception in the 1970s). In addition to these factors, it should also be noted that since the subject has been offered within the auspices of the arts and social sciences its enrolments have increased from the long-term average of 400 to over 600. This amounts to a 50 per cent increase, against an 18 per cent increase in total enrolments in the University’s Business and Arts Faculties. Such a finding provides support for the idea that the growth prospects for economics as a social science appears to be, perhaps rather unsurprisingly, in faculties of arts and social sciences.

Looking at PE courses other than the large Sydney University course, enrolments have remained healthy. For the 14 other introductory courses for which we have enrolment data in 2005, there were an average of 64 students per course. In 2012 this had grown to 68 students per course. These average enrolments, while not particularly high, demonstrate that there is a viable and sustained demand by students for political economy. In both 2005 and 2012, the largest enrolments were in first-year courses, which emphasises the argument made earlier about the strategic, intellectual and practical benefits of offering political economy at the first-year level.

When we look more closely at these enrolment numbers we find an interesting relationship with the discussion above regarding the institutional location for introductory PE courses. Table 4 sets out enrolments for some of the largest PE courses. Of the 4 largest courses, 3 are located in faculties of arts/social sciences. This suggests that where PE can establish itself in such faculties, the ‘business case’ of large enrolments can be created to sustain and build the programme. The situation at Macquarie University illustrates this point: the third year introductory course that had existed in 2005 in the Faculty of Business and Economics, with an enrolment of 38, is no longer offered (though it was essentially transferred across to University of Technology, Sydney). However, a new first-year course in political economy in the Faculty of Arts at Macquarie has been established. Its enrolment was 170 in 2012. This much larger enrolment and lower year level provides the foundation for a sequence or major in political economy.
Table 4: Enrolments in Introductory PE Subjects, 2012

<table>
<thead>
<tr>
<th>University</th>
<th>Course Name</th>
<th>Enrolment in 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Melbourne</td>
<td>Seminar in Economics and Commerce A: Classical Political Economy and Economic Liberalism</td>
<td>25</td>
</tr>
<tr>
<td>La Trobe University</td>
<td>Competing Approaches in Contemporary Economics</td>
<td>30</td>
</tr>
<tr>
<td>UNSW</td>
<td>Introduction to Political Economy</td>
<td>34</td>
</tr>
<tr>
<td>University of Technology Sydney</td>
<td>Alternative Perspectives in Contemporary Economics</td>
<td>38</td>
</tr>
<tr>
<td>University of Queensland</td>
<td>Politics &amp; the economy; Economic analysis &amp; public policy</td>
<td>35-40</td>
</tr>
<tr>
<td>University of New England</td>
<td>Avoid Economic Deception: Study Political Economy</td>
<td>40</td>
</tr>
<tr>
<td>University of Queensland</td>
<td>Political Economy and Comparative Systems</td>
<td>47</td>
</tr>
<tr>
<td>University of Western Sydney</td>
<td>Government and the Economy</td>
<td>52</td>
</tr>
<tr>
<td>University of Southern Queensland</td>
<td>Political and economic ideas</td>
<td>60</td>
</tr>
<tr>
<td>University of New South Wales</td>
<td>Political Economy</td>
<td>70</td>
</tr>
<tr>
<td>University of Western Sydney</td>
<td>Political Economy</td>
<td>74</td>
</tr>
<tr>
<td>University of Wollongong</td>
<td>Economic Essentials for Business Innovation</td>
<td>110</td>
</tr>
<tr>
<td>University of Melbourne</td>
<td>Political Economy</td>
<td>150</td>
</tr>
<tr>
<td>Macquarie University</td>
<td>Economy and Society</td>
<td>170</td>
</tr>
<tr>
<td>University of Queensland</td>
<td>Economics of Social Issues</td>
<td>150-170</td>
</tr>
<tr>
<td>University of Sydney</td>
<td>Economics as a Social Science</td>
<td>600-700</td>
</tr>
<tr>
<td>University of Queensland</td>
<td>Evolution of Economic Systems</td>
<td>Not provided</td>
</tr>
</tbody>
</table>

The introductory subjects surveyed were also assessed in terms of the curriculum they followed. In contrast, to the neoclassical curriculum that is generally of a highly uniform nature (Colander 2003) the introductory political economic courses were more diverse. From a
content-analysis of the courses guides, two things stand out. The first is the commitment to economic pluralism: introductory political economy is genuinely introductory economics, which introduces the subject as a whole, not just the non-pluralist, neoclassical strand. Second, the content of introductory political economy is heavily grounded in the history, practice and institutions of market capitalism. This contrasts to the introductory neoclassical curriculum that generally falls prey to the Ricardian vice of being overly ahistorical and lacking in institutional context.

This diversity of introductory political economy is partially evident in the required reading set within each course. The choice of set texts for subjects was quite varied. However, some Australian-produced political economy texts made multiple appearances: five subjects used Political Economy: The Contest of Economic Ideas (Stilwell 2011a), three subjects used Economics as a Social Science: Readings in Political Economy (Stilwell & Argyrous 2011) and two subjects used Market Society: History, Theory, Practice (Spies-Butcher, Paton & Cahill 2012).

Table 5 summarises the prevalence of different schools of thought in the curricula of the 17 subjects surveyed. A notable finding, and one that contrasts from the 2005 survey, is that behavioural economics has begun to be taught in introductory political economy. This openness to behavioural economics stands in contrast to the introductory neoclassical economics courses, which gives behavioural economics, at best, a cursory treatment. Some evidence of this can be seen in the currently dominant introductory neoclassical economics textbook by Mankiw. The ‘Frontiers of Microeconomics’ chapter is a good example of a syndrome identified by Earl (2010) whereby the ‘new’ behavioural economics is couched in such a way that it does not threaten the legitimacy or existence of a neoclassical theoretical core. Even the title of the chapter can be seen as defensive: why would a school of economics established in the 1950s be referred to as a ‘frontier’ if not to denote it as being of a provisional and uncertain nature? The sheer brevity of coverage is also consistent with a defensive orientation. Only three findings are really discussed, and each of them is given only a paragraph: people are over-confident; people give too much weight to a small number of vivid observations; and people are reluctant to change their minds. The section is then wrapped up by asserting that the
Table 5: Schools of Economics Taught in Introductory Political Economy Courses, 2012

<table>
<thead>
<tr>
<th>School of Thought</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neoclassical/Economic Rationalism/Neo-liberalism</td>
<td>16</td>
</tr>
<tr>
<td>Marxist/Radical/Socialist</td>
<td>15</td>
</tr>
<tr>
<td>Keynes/Post Keynesian</td>
<td>14</td>
</tr>
<tr>
<td>Pre-Classical/Classical</td>
<td>10</td>
</tr>
<tr>
<td>Institutionalist/Evolutionary</td>
<td>12</td>
</tr>
<tr>
<td>Feminist</td>
<td>5</td>
</tr>
<tr>
<td>Austrian</td>
<td>4</td>
</tr>
<tr>
<td>Behavioural Economics</td>
<td>4</td>
</tr>
<tr>
<td>Ecological Economics</td>
<td>6</td>
</tr>
</tbody>
</table>

*rationality* assumption, “even if not exactly true, is still a good approximation” (Mankiw, Gans & King 2009, p.531) and that *rational choice* theory is “not perfect, but it is good enough” (Mankiw, Gans & King 2009, p.531).

More broadly, introductory political economy courses can be put into four groupings. ‘*PE* via policy analysis’ (6 courses) uses current policy issues and political ‘realities’ as a vehicle for exploring broader theoretical issues in economics. ‘Historical pluralist *PE*’ (6 courses) examines a series of competing schools of thought in the order in which they developed historically. ‘Neoliberalism and its alternatives’ (4 courses) adopts a structure that starts with an exposition and critique of both neo-liberalism and neoclassical economics, then examines a series of competing schools of thought in the order in which they developed historically. One course, ‘Applied *PE*’, adopt heterodox schools as the means of understanding economic issues, rejecting the need to present the neoclassical alternative. Table 6 summarises the situation.

The difference in format can be largely explained by differences in the degree programs in which the subject sits, the need to avoid duplication with other subjects also being offered, and the interests of the staff teaching the subject. For example, if a university offered a dedicated subject in *History of Economic Thought* (HET), an *HET* format for teaching introductory political economy presents obvious problems of duplication. Furthermore, if a course was based in the social science faculty it was more likely to take a historical approach to theoretical debates.
Table 6: Introductory Political Economy Subjects by Structure and Focus

<table>
<thead>
<tr>
<th>Course Type</th>
<th>2005</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical pluralist PE</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>PE via policy analysis</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Neoliberalism and alternatives</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Applied PE</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

Finally, the preferences of the staff responsible are likely to be a significant factor in shaping the structure of a course. In response to an open-ended question asking how the course had changed in the past five years, a key theme of the responses was that new staff taking over the coordination of the course usually initiated any changes. The most significant changes involved a recasting of a specific course from one of the general formats listed in Table 6 to another. The following two responses illustrate this, with the first moving from a historical pluralist approach to a *PE* via policy analysis format. The second response discusses a shift in the opposite direction:

In the most recent offering, I have started with political economic issues, and, from there, I have examined conceptual material. In previous offerings the unit began with conceptual material before applying it to contemporary issues.

Subject has been completely re-written to focus on the major ideologies in economics and their application to case studies on the global financial crisis, privatisation and the Australian economy in its global context.

The other major change that had occurred was a change in the list of policy issues on which theoretical debates could be illustrated.

A somewhat surprising aspect of the survey was how conventional most political economy subjects are in pedagogical design. Typically, courses were delivered in the traditional lecture-tutorial format. Assessment was usually a tutorial paper, an essay and a final exam. In other words, while the content of political economy represents an innovation, the usual delivery of this content is very much in the traditional mode. This could be a reflection of the poor incentives within universities for teaching innovation. It could also be based in the belief that the traditional methods are the most effective regardless of content. In any event, innovation in teaching is something that could be
more closely considered by those that teach political economy, given that political economy can be more difficult to teach than orthodox economics (Stretton 1996). An obvious innovation would be to incorporate greater use of online support in political economy courses, if only to keep up with our orthodox colleagues who are currently using this technology.

6. IMPACT OF THE EXCELLENCE IN RESEARCH AUSTRALIA INITIATIVE

The contributions to Lee & Lavoie (2013) examine a number of forces common to universities across the world that account for the sidelining of alternative approaches to economics, despite their popularity with students. One force that takes a particular character in Australia is the nature of the Australian Research Council’s Excellence in Research Australia exercise that has a history of ranking non-neoclassical research poorly relative to neoclassical research (See Bloch 2010; Lee et al. 2010). Indeed in 2007, the sub-disciplines of economic history and history of economic thought had to mount a vigorous campaign for their research to be even assessed as part of the discipline of economics (Millmow & Kates 2008).

More recently, an analysis of the most recent round of the ERA found that there were “built-in biases that favour theory and econometric research over applied and other economics research” (Bloch 2012, p.1). In September 2013, the Australian Business Deans Council were persuaded to downgrade almost all of the remaining economics social science orientated journals that had previously been ranked ‘A’. The consequence of these types of changes is that traditional centres of economics teaching, ever-focused on maximising their overall research standing, will be loath to employ political economists, thus meaning there will be no staff able to teaching political economy subjects.

One potential solution to this problem would be for the Australia Research Council to double-code all political economy journals so that dissenting economists are in a position to work both inside and outside traditional centres of economics teaching. The obvious coding for such journals would be to classify political economy under Field of Research (FoR) code 16 (Studies in Human Society) and more particularly under FoR 1606 (Political Science) and then under FoR 160699 (Political Science not elsewhere classified). Whatever codings political economy journals currently have under FoR 14 (Economics) could remain as they
are so as not to disadvantage those that continue to operate inside of business faculties.

7. CONCLUSIONS
The state of political economy teaching in Australia is at an interesting stage of development. On one hand, it has remained a presence in Australian universities; on the other hand it faces challenges in renewing, expanding and innovating. The continued reduction of economics offerings by Australian universities and the age profile of staff at some of these universities where PE has had a solid base, provide worrying signs that a similar review of PE subjects in only 3-4 years time would yield less positive results. For example, staff at the University of Queensland, which have historically taught several introductory PE courses across a range of programmes and degrees, indicted that as they approach retirement the likelihood of new appointments to continue these courses was very low.

From our perspective, there appears to be much evidence that we should direct our efforts outside business faculties and traditional economics departments. In particular, we feel that the Department of Political Economy offers a general template for the development of political in Australian universities. The survey evidence has also clearly illustrated that the Department of Political Economy, has been the major engine room for political economy in Australia and that the leadership and commitment of Frank Stilwell and his colleagues offer much that is instructive and inspiring for those interested in an improved economics and a better world. While it cannot be assumed that establishing a separate institutional base will not be without its own challenges (Argyrous 1996; Thornton 2013b), we, like many of the respondents to our survey, see the broader social sciences as the more promising domain, given the well-known and seemingly ever-increasing difficulties of trying to go about one’s business within traditional centres of economics teaching.

REFERENCES


This paper examines the implications of Newman’s vision of a Catholic University, as explicated in *The Idea of a University* and other tracts, for the teaching of economics. Newman, though not an economist himself, was one of the first educators to consider the place of economics, or political economy as it was then called, within the university structure. To shift the focus from the “place” of political economy in the university to the way it, or any disciplinary subject matter, should be taught, one needs to undertake a more complex exegesis of Newman’s wider writings. Such an exegesis shows that Newman’s preferred teaching methods were governed by a conservative philosophy—which itself is allied to the way Catholic doctrine should be interpreted—in which knowledge is sufficiently ineffable (or inarticulable) that it can only be conveyed indirectly within a tradition that is maintained through personal contact between master and student. The paper links this pedagogical approach to Newman’s theological writings and an English conservative tradition dating from Edmund Burke, but exemplified in the writings of Michael Oakeshott and Michael Polanyi.

**Keywords:** pedagogical philosophy, philosophy of economics, administration.

**JEL classifications:** A20, A22.

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1. INTRODUCTION
John Henry Newman, the most prominent Victorian Anglican to convert to Rome, was appointed the inaugural president of the Catholic University of Ireland in November 1851. This institution was established by the Catholic authorities in response to Sir Robert Peel’s 1845 policy of establishing non-denominational Queen’s Colleges to appease the Irish Catholics, who believed that they could then enrol at the protestant denominated Trinity College, Dublin, only under conditions at variance with their religious principles. The Catholic authorities rejected Peel’s “godless” colleges and recruited Newman to establish an overtly Catholic university as an alternative place of higher learning. Newman interpreted his brief in an innovative, if not controversial, way by stating that one of the primary goals of a university, even if Catholic, is the secular one of cultivating the intellects of the students, and, further, by basing his Irish enterprise on some of the better practices of the innovative educational system that he had witnessed as an Anglican fellow of Oriel College, Oxford, prior to his conversion to Rome.

Newman was the first to recognize that many aspects of the Oriel educational system were less than satisfactory and, indeed, he had resigned his Oriel tutorship in protest when the then Provost of that College, Edward Hawkins, refused to implement changes that would have allowed tutors to exert a more systematic pastoral, religious and pedagogical influence over the students under their charge. He nonetheless freely accepted that the innovations implemented by the senior men of Oriel in the opening decades of the nineteenth century - particularly those engineered by John Eveleigh and Edward Copleston - had made Oriel the leading intellectual centre of Oxford, if not Britain. Newman, in other words, may have been deeply distressed by the way the lack of system in these innovations only allowed the best of what Oriel had to offer to break out irregularly, but it is patent that he was also enamored with the way that the Oriel men: awarded scholarships and fellowships on the basis of originality of thought rather than favour or honours won through swatting; conveyed the liberal-education tradition via personal-cum-charismatic interaction with the student body; and, even if erratically, spent time developing the student’s intellect and character as an integrated whole. Newman therefore sought to construct a university to promote his versions of these largely secular principles within a Catholic setting over and above his obvious
intent of providing the Church with yet another instrument to achieve its larger goal of maintaining and promoting the one and true religion. He outlined this vision in a series of discourses before his new Irish constituency that were published as his widely cited, but seemingly rarely read, *The Idea of a University* ([1873] 1905).

In this paper I examine the implications of Newman’s vision of a Catholic University, as explicated in *The Idea of a University* and other tracts, for the teaching of economics. Newman, though not an economist himself, was one of the first educators to consider the place of economics, or political economy as it was then called, within the university structure. This is less surprising than it first appears, since Oxford political economy in the 1820s had been driven by members of an Oriel set who were known to Newman; namely, Richard Whately (who was one of Newman’s mentors), Copleston and Nassau Senior (who hailed from Magdalene but was under Whately’s wing). Newman, however, concerned himself primarily with the place of political economy within the structure of a Catholic University and, especially in *The Idea of the University*, wrote far less liberally about the actual teaching methods that a political economist should employ.

To shift the focus from the “place” of political economy in the university to the way it, or any disciplinary subject matter, should be taught, one needs to undertake a more complex exegesis of Newman’s wider writings. Such an exegesis shows that Newman’s preferred teaching methods were governed by a conservative philosophy - which itself is allied to the way Catholic doctrine should be interpreted - in which knowledge is sufficiently ineffable (or inarticulable) that it can only be conveyed indirectly within a tradition that is maintained through personal contact between master and student. This argument is developed in four further sections.

In section two I argue that Newman’s justification for the role of political economy in the university structure was effectively a device to show how theology was important as a means to constrain the imperialistic tendencies of this and other disciplines within this structure. In section three I show how the primary goal of an administrator who sets up this form of “theology constraining” university structure is to allow teachers to convey the rich, partly ineffable, traditions of the interconnected liberal disciplines. In section four I outline the way Newman believed that this tradition should actually be conveyed in a site-specific location. In section five I link
this pedagogical approach to his theological writings. In the concluding section I relate this teaching process to an English conservative tradition dating from Edmund Burke, but also exemplified in the writings of the likes of Michael Oakeshott and Michael Polanyi.

2. THE PLACE OF ECONOMICS IN NEWMAN’S IDEAL UNIVERSITY

Newman’s *The Idea of a University* ([1873] 1905) is a book that holds a particular fascination for economists with a scholarly bent because it provided the first extended justification for the place of political economy within those very slippery and ill-defined institutions that we commonly (but in some cases incorrectly) refer to as universities.\(^1\) This sort of ‘institutional’ defence was slightly different from earlier justifications of the fledgling discipline of political economy, which had invariably turned on defending it as a *bona fide* science or moral science or any discipline of worth in any given institution or domain (university or otherwise). Newman’s arguments in favour of political economy *within* the university structure patently fed off the way that the young discipline of political economy was justified as a science by members of the aforementioned Oriel set who devoted themselves to political economy. The line of reasoning advanced by both Newman and the Oriel men has fortunately already been made a subject of study, and hence these arguments may be dispensed within a tight compass.\(^2\)

Specifically, Copleston, Whately, Senior and other members of the Oriel set led the revival in Aristotelian logic in the Oxford curriculum in the early decades of the nineteenth century and, given that they also

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1 The 1852 lectures that Newman presented (some in written form only) to his new Irish constituency on the nature of a university became the discourses that constituted the first half of *The Idea of a University* (and published in 1852), while his 1854 lectures became the discourses that made up the second half of this tract (and published in 1859). These two sets of narrative were brought together in the 1873 edition of *The Idea of a University* ([1873] 1905), which is often referred to as the definitive edition. See Harrold (1945, 1947), McGrath (1951), Culler (1955), Svanglic (1960), Dale (1972) and Ker (1988, 2011).

2 For the complex interplay between the religious and economic beliefs of the Noetics, see Corsi (1987), Mandler (1990), Waterman (1991), and Moore & White (2010). For a more detailed list of references relating to the Noetics and their role in forming the economic policies of the day, see the last cited article, and for the wider context for the role of religion in economics at this time, see Hilton (1988) and Winch (1996). Newman’s political economy has also already been made a subject of worthy study by Oslington (2001), while his argument that it should have a place in the university structure has recently been examined by Martinez (2009).
pursued syllogistic reasoning in daily conversations in a systematic if not ruthless fashion, their contemporaries soon began referring to them as the Oriel Noetics (where Noetic is Greek for intellectual or reasoner).

The chief publication of this movement was Whately’s *Elements of Logic* (1826), which was in many ways the issue of Oriel as a collective, since, even though Whately’s name correctly appears on the fly leaf of the publication, it was initially based on Copleston’s lectures, Senior contributed an appendix on economic terms and, prior to his falling out with Whately and before his recognition of the excesses of the Oriel logic chopping, Newman effectively acted as an occasional assistant to Whately on this project. Copleston, Whately and Senior subsequently sought to harness this Aristotelian revival to formalize political economy (in what became its modern form) as an abstract-deductive, means-end and positivist discipline. However, as religious men in an institution in which religious sentiment was prominent, the ultimate ends dwelt upon by these scholars were not the secular goals of wealth and/or utility, as dwelt upon by the London Utilitarians, but the virtues that were delineated in the scriptures. They could so dwell on these ends without breaking the science-normative or is/ought dichotomy by presuming that there was a wealth-virtue nexus, namely, that economic man’s pursuit of wealth induces industry and prudence and, ultimately, the attainment of various virtues, especially if this base, but evolving, creature is guided by the pastoral leaders who inhabit the established institutions of the Anglican ascendency. As the first Drummond professors of political economy at Oxford, Senior and Whately were the most forceful in articulating this line, especially in Senior’s inaugural lecture in 1826 (which was published in 1827) and Whately’s 1831 lectures (which was published in 1831 as *Introductory Lectures on Political Economy*).

Newman eventually became disillusioned with this and other syllogistic and empiricist excesses of the Oriel Noetics, without ever abandoning his belief in the inherent worth of logic and empiricism, especially after his realization that such reasoning could neither completely solve the social problems of the age nor entirely explain the complexities of religious faith, a realization that grew alongside his leadership role in the High Anglican movement known as Tractarianism (or the Oxford movement) in the 1830s and 1840s and his associated theological evolution that led to his conversion to Rome
in 1845. It was the totalizing and unqualified nature of the Oriel abstract-deductive system, particularly when considering subjects on which theological doctrines had some bearing, which played on Newman’s mind when he came to write the discourse in which political economy figures in *The Idea of a University* in 1852. He was also probably prompted to think once again about Oriel political economy due to the poor reception of *Lectures in Political Economy* by his less able, more heretical and (and often estranged) younger brother, Francis William Newman, in 1851, even though these two siblings did not see eye to eye on either religious or most other matters, and despite the fact that this tract does not figure in any of the older Newman’s writings. In any event, Newman first considered the place of (Oriel) political economy within the university structure in discourse four, sections 10-11, of *The Idea of a University*.

Newman there argued that the pursuit of wealth is not necessarily frowned upon in the Christian teachings (or, as he would have it, a theological science) and demonstrated this by citing passages from the scriptures and referring to the articulated views of various men of the cloth ([1873] 1905, p.86). He added that there is also nothing wrong with constructing an abstract-deductive science (although he does not call it this), such as political economy, in which if something is assumed, such as the pursuit of wealth, then something else is predicted to follow ([1873] 1905, p.87). Newman did, however, take issue with

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3 It is reasonable to presume that a sibling’s publication may have turned an individual’s mind to a certain discipline. Francis William Newman’s *Lectures on Political Economy* (1851) is chiefly remembered by economists today for the rather scathing review of this work in the *Westminster Review* by John Stuart Mill (1851), who was then in the process of embracing cooperative socialism and hence not surprisingly dismissed, as simple minded, Newman’s critique of socialism (as well as Newman’s admittedly shallow reading of Malthus and Ricardo). The younger Newman, however, also produced heretical theological texts of some worth (and is now well regarded in that discipline) and some historians of economic thought, such as Bennett (1966), Shearmur (1997), Lipkes (1999) and Donoghue (2002), have since found one or two redeeming features in his political economy. Shearmur (1997), in particular, presents a convincing argument that the younger Newman anticipated Mises and Hayek in the calculation debates. Still, for all this, it is clear that John Henry Newman was considering the political economy of the Oriel Noetics from the 1820s and 1830s rather than the political economy of his younger brother or even the younger Mill’s 1848 book (which is more surprising) in *The Idea of a University*. The condition of famine-ridden Ireland, together with the voluminous literature on this topic, should also be considered as a possible prompt, not to mention the fact that Whately, his old sparring partner and now permanently estranged ex-colleague, had established (as the Archbishop of Dublin) a political economy tradition at Trinity College, Dublin, (TCD) down the road in the 1830s.
his ex-colleagues from Oriel (citing Senior’s introductory 1826 lecture in particular) for constructing an abstract-deductive science in which the pursuit of wealth was depicted as the chief means by which to maximise the end of virtue ([1873] 1905, p.88ff), with the focus on virtue here arising because of the aforementioned Oriel presumption that virtue rather than utility was the variable to optimise within what we now call an objective function.\(^4\) Newman did not deny that the pursuit of wealth may, as Senior and Whately claimed, lead to more virtuous behaviour. In his words:

\begin{quote}
I grant, then, that ordinarily, beggary is not the means of moral improvement; and that the orderly habits which attend upon the hot pursuit of gain, not only may effect an external decency, but may at least shelter the soul from the temptations of vice. Moreover, these habits of good order guarantee regularity of a family or household, and thus accidentally provide the rising generation with a virtue of truth which the present does not ….
\end{quote}

(Newman [1873] 1905, p.91)

But Newman did object to what he perceived to be the over-determined and totalizing nature of the Oriel argument. He contended that to claim that the pursuit of wealth (in all its forms) leads to the maximisation of virtuous behaviour (presumably itself a complex spectrum of middle distant ends that need to be achieved to obtain still other intrinsic ends) assumes knowledge that is normally acquired outside the political economist’s proper sphere and, in particular, requires knowledge that is normally derived from the domain occupied by the theologian. This latter argument is, in fact, the principal point of Newman’s analysis of the role of political economy in the university structure; that is, his primary reason for considering political economy in The Idea of a University was less to justify a university place for a properly delimited discipline of political economy (or any of the several other secular disciplines he considered), and more to illustrate the

\(^4\) Most of the readers of this journal will be economists who have embraced the constrained-optimisation framework that emerged from the engineering and mathematical-physics disciplines in the mid-Victorian age, and hence the terms “maximise” and “optimise” are occasionally used in the context of considering the pursuit of virtue. Such usage, however, may raise an eyebrow or two amongst scholars steeped in the Aristotelian tradition that Newman was drawing upon, and note that these terms were not actually used by Newman himself. I personally believe that the modern constrained-optimisation approach and the Aristotelian tradition may easily be squared, but if the reader finds this too unsettling and anachronistic, he or she should simply insert “pursue” for “maximise” or “optimise” in the main narrative.
necessity of giving theology a prominent place within a university structure to check the inappropriate growth of this and the other secular disciplines beyond their proper spheres.

Newman sought to show the intimacy of theology with all other disciplines by demonstrating how over-enthusiastic scholars in each secular discipline, made narrow and conceited by their successful pursuit of specialised knowledge (such as the Oriel Noetics), over-step the mark by neglecting theology when pushing their ideas in an imperialistic fashion beyond their disciplinary boundaries (see also Ker 2011 on this point). In short, if theology is absent, if it is not cheek by jowl with other disciplines (abstract-deductive or not), then practitioners from these disciplines, trespass on its terrain and tarnish the reputations of their own disciplines in the process.

Political economy, then, has a place in the university structure, but a place that is carefully constrained and delimited by theology (and, as we will see in the next section, other disciplines). The more precise arguments that Newman leveled against the imperial over-reach of the Oriel vision are perhaps now easily explained away within the Mill-J.N. Keynes-Robbins tradition (with all of its means-ends, *ceteris paribus* and tendency-law paraphernalia), the key elements of which, paradoxically, may in fact be found in the Oriel men’s writings. Newman’s arguments were nonetheless sound enough in the context in which they were delivered, and his more particular criticisms along these lines hit their target smartly (and, a century later, would have hit the less dexterous of the imperialistic Chicagoan economists equally smartly). Specifically, he took issue with Senior for laying down the wealth-virtue argument without reference to what the theologians have to say on the matter, and for thereby elevating the importance of the science of political economy above theology in the hierarchy of disciplines ([1873] 1905, p.91); for claiming that the pursuit of wealth is the “great source”, rather than just a possible source, of moral improvement, which seems to contradict “our Lord, St Paul, St. Chrysostom, St Leo and all Saints” ([1873] 1905, p.92); and for claiming that no institution is more beneficial for raising morality than that which raises the wish to pursue wealth, since this neglects the institution of Christianity, the teachings of which often provides contradictory advice ([1873] 1905, p.92).

The particular argument, however, to which Newman seemed to take greatest exception, was Senior’s claim that religion is itself a function
of the wealth-virtue nexus. As Newman put Senior’s obnoxious (or should that be “neat”?) logic: “Wealth depends upon the pursuit of wealth; education depends upon wealth; knowledge depends on education; and Religion on knowledge; therefore Religion depends on the pursuit of wealth” ([1873] 1905, p.93). In short, according to Newman, Senior neglects the possibility that wealth can also be the root of all evils and has failed to give a theological answer of when and where the pursuit of wealth leads to more virtue: “the sense needs to be defined and the statement to be kept within bounds” ([1873] 1905, p.94). The “sense” and “bounds” are, according to Newman, designed by the theologian.

3. THE ENDS OF AN IDEAL UNIVERSITY AND THEIR SHAPING OF ECONOMICS TEACHING

Political economy is therefore given a prominent place within Newman’s university, albeit in part as a rhetorical strategy to justify the pre-eminent place of theology in the hierarchy of the disciplines. My goal, however, is to comment less on the place of political economy in the university structure (even though it has a central bearing on discussion that follows) and more on the way political economy, once entrenched within Newman’s university, should be taught. There is, surprisingly, very little in The Idea of a University about the actual process of teaching. Newman devotes most of the book to considering the constitution of his ideal university—with each of the secular divisions neatly presented and carefully checked and delimited by a prominent theology faculty—and what its objects should be. The latter objects are nonetheless important for our purposes, since the nature of one’s teaching is clearly dependent upon one’s ultimate goals when teaching, and hence the ultimate objectives of Newman’s ideal university require comment on my part.

Newman famously argued that the ultimate end of a university is to cultivate the intellects of its students. He believed that the cultivation of the intellect is an end in itself, and hence a university is not necessarily designed to improve virtue, to increase wealth, to serve the professions, or to achieve some other goal, even though these are usually worthy by-products of pursuing this primary end ([1873] 1905, p.99ff). He justified this contention on the grounds that individuals possess an innate desire to cultivate their intellects in a way that allows them to understand the world around them and that the university, as an institution that allows this cultivation to flourish, needs no more
vindication than that it allows us to satisfy this desire. Thus, the university serves a deep human need, it sates an innate human craving, in the same way that a hospital is designed to heal the sick and the gymnasium is intended to exercise the limbs ([1873] 1905, p.125). The crass materialistic-cum-utilitarian model that drives most modern universities, including the many vocation-oriented Catholic universities, is not part of Newman’s vision—even though, as we will soon see, and perhaps to the consternation of those who see Newman as the saviour of the liberal-arts university, vocational courses do so figure in this vision.

Given that Newman was recruited to establish a Catholic university, it is also interesting that he was adamant that the way a university acts as an instrument to cultivate the intellect precedes—both historically and logically—the way it acts as an instrument of Church policy ([1873] 1905: 99ff). It must nonetheless be emphasized that Newman made Catholic theology loom large even within a university with this secular quest because the enlargement of the mind takes place via a traditional liberal education. Specifically, in Newman’s world the enlargement of the mind does not entail the acquisition of particular knowledge or mere facts (even though the acquisition of facts is a pre-condition to enlarge one’s mind), but rather the acquisition of the whole of the inter-related parts of all knowledge, including that which relates to theology. This particular enlargement of the mind, which Newman called the philosophical habit of mind, is “the power of viewing many things at once as one whole, of referring them specifically to their place in the universal system, of understanding their respective values, and determining their mutual dependence” ([1873] 1905, pp.136-7).

The subjects associated with the liberal disciplines—such as logic, mathematics, history, theology, the critical reading of the Classics and so forth—are especially important in this vision, since they provide the intellectual tools that allow individuals to see what Alfred Marshall later referred to as the ‘many in the one and the one in the many’ both in relation to the objects of any given discipline and across the different disciplines. This should be a self-evident truth to modern economists, since they clearly draw upon different disciplines (such as mathematics, inferential statistics, history, psychology and so on) and economics is, in turn, drawn upon by practitioners from other disciplines (such as sociology, politics, law, finance, accounting and so on). The idea of viewing the different parts of knowledge as a mutually dependent
whole, which is itself derived from the Aristotelian traditions embraced by Newman, also explains why Newman occupied himself primarily with the twin goals of delineating the constitution of the respective parts of a university and defining its ultimate end. They are, to him, intimately connected: to pursue the end of cultivating a mind requires an understanding of many disciplines, even when an individual specializes in one, and hence all of the disciplines required to capture the inter-connected whole need to be singled out as worthy of being embedded in a university.\(^5\)

This vision also explains why theology is not merely part of a university, but, as emphasised in the previous section, a pre-eminent part, since a strong theology division within the university prevents any one discipline (including the important liberal disciplines) from enlarging its domain sufficiently that its practitioners see the world from their own perspective rather than the interrelated whole. It certainly enriches our understanding of Newman’s vehement censuring

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\(^5\) The call for economists to have a broad understanding of the subject matter of disciplines outside the core that is economic theory, especially of the subject matters of history and mathematics, has a long history in the economics discipline. This is in spite of the fact that this is the same discipline that champions the division of labour and comparative advantage (and even though to broaden oneself without also mastering the core is rather pointless). To paraphrase John Stuart Mill’s words of 1868 (in response to Robert Lowe’s narrow vision of political economy): “to be a political economist only is to be a poor political economist”. Hayek (1956, p.463) similarly stated: “nobody can be a great economist who is only an economist – and I am even tempted to add that the economist who is only an economist is likely to become a nuisance if not a positive danger.” It also should be noted that the phrase in the above paragraph, “many in the one and the one in the many” was used by Marshall to justify both abstraction and empiricism in economics (see Appendix C of his *Principles*), such as the claim that abstract rational economic man is a component part of each real man, but each real man is composed of far more characteristics (although Marshall himself used the economic meaning of rent to illustrate the point). The felicitous phrase is nonetheless also applicable to claims relating to the interrelatedness of subject matter across disciplines, such as the conjecture here that economic doctrines are a component part of economics, history, sociology, and so forth, and all of these disciplines are, at the same time, composed of more subject matter than just economic subject matter. Finally note that Martinez (2009) and Ker (2011) examine the thorny philosophical issues surrounding the delicate balance between specialized and inter-disciplinary knowledge in Newman’s writings, while for the Aristotelian flavour of Neman’s position (but without mention of the Oriel Noetics) see Hochschild (2003).
of the imperial excess of the (wealth-virtue nexus) vision of economics advocated the Oriel Noetics, while at the same time providing rich irony, since Newman himself also acknowledged that his belief in the cultivation of the intellect through the pursuit of a liberal-arts education was itself derived from the Oriel position that had been cemented in their 1809-11 debates with the utilitarian-oriented men (at least in terms of education) of the *Edinburgh Review.*

Newman’s contention that a Catholic university is first and foremost an instrument to cultivate the intellect rather than a naked theological instrument of the Church was, as one would expect, a controversial argument to place before a Catholic hierarchy that was yet to be entirely convinced that a Catholic university was a priority given the many other spiritual needs of their Catholic parishioners in post-Famine Ireland. The prominence Newman gave to theology within the university structure undoubtedly softened the blow of the seemingly secular-oriented argument, but it would not have made it that much softer when we remember that this prominence was primarily designed to act as a check on the imperialistic ambitions of each discipline and thereby as a means to achieve the secular goal of cultivating the intellect by allowing one to grasp the interconnected whole of the various liberal disciplines. There were, however, several other reasons motivating Newman to give theology (and for Newman this means Catholic theology) a central role in his ideal university; and these do indeed turn on treating theology as

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6 Newman stresses the Oriel (and therefore the Aristotelian) origins of this liberal-arts vision in *Apologia Pro Vita Sua* ([1864-65] 1913), his autobiographical memoir (1903), and *The Idea of a University* itself ([1873] 1905, p.154ff). Specifically, the Oriel Noetics defended a liberal education—chiefly consisting of a rigorous training in Aristotelian logic—against the 1808-9 attacks by the three “northern” critics of the *Edinburgh Review* (John Playfair, Richard Payne and Sydney Smith), who had taken the utilitarian line that it was wasteful to train men in useless “Classical” subjects, as they did at Oxford, when they could be trained in useful professional subjects. This critique of a liberal education was rebuffed in a particularly elegant fashion by Copleston in “Reply to the Calumnies of the Edinburgh Review” (1810). Newman took Copleston’s tract as a template of style, replicated vast passages from it in *The Idea of a University,* and in many ways his plea for a liberal education is simply Copleston writ grand. Newman, in short, became tired of the excessive manner in which the Noetics pursued their logic chopping, and his own university structure was demonstrably designed to check their imperialistic excesses, but he retained his Noetic heritage in many other ways. Unlike the role played by Oriel in influencing Newman’s political economy, which is only considered by Oslington (2001), the Oriel connection in relation to Newman’s liberal-arts vision is well canvassed in the secondary literature (see Moore & White 2010 for an account of this earlier debate).
an instrument of Church policy. These reasons were, perhaps not surprisingly, driven by the sectarian controversies and Church politics of the time and place in which the discourses were written, and hence they were skated over quickly by Newman, the master practitioner of rhetoric, to avoid needlessly alienating sections of his audience.

The first and most important of these arguments is that, for the newly converted Newman, Catholic theology is not only a science, but also, unlike the secular sciences that portray only aspects of reality due to the need for abstractions and the (now widely accepted) limitations of naïve empiricism, the sovereign science that considers higher ends and yields the absolute truth via revelation, and to which the other sciences are subordinate and which the other sciences cannot contradict. Newman’s theology, in other words, does not merely check the imperialistic tendencies of each discipline, but also checks them from advancing facts in contradiction to the truths of Catholic Doctrine (since by definition they would then not be facts). Newman famously staked out this position a few years before in *An Essay on the Development of Christian Doctrine* (1845), in which he argued that the original Christian principles had been revealed from heaven and pronounced to the Apostles, and as if an echo, to the early church fathers, and then, as broad and pregnant principles from which things grow (and only truly come alive) when applied to concrete particulars, transformed into an ever evolving Catholic doctrine that is overseen by Bishops made worthy by Apostolic succession. The revealed truth of the original principles is therefore carried over to evolution of the doctrine that follows, and the worth of the latter is itself demonstrated by historical enquiry via a number of tests (such as consistency, assimilation, anticipation and continuity of the associated historical statements relating to doctrine) that determine whether or not the doctrinal development - the unpacking of the original principles - has been corrupted.

The term tests was, however, too much for the Catholic hierarchy (while they frowned upon both Newman and the book as a whole), and in the second edition (1878), in addition to placing greater emphasis on the concept of Papal infallibility that was then evolving, Newman changed the term “tests” to “notes”, presumably to emphasize that his historical approach was designed to illustrate rather than to prove the worth of doctrines. In any event, this vision of a historicized theology is not outlined in *The Idea of a University* and the associated claim that
Catholic doctrine is the incontrovertible truth is side-stepped whenever possible. The contention is nonetheless there on the page if one is looking and, further, theology is always referred to as the ascendant science that brooks no contradiction. Historical fact, for example, cannot challenge or lead to theological truth: “The evidence of History, I say is invaluable in its place; but, if it assumes to be the sole means of gaining Religious Truth, it goes beyond its place” ([1873] 1905, p.95; see also Altholts 1964, p.289). That this argument resides in The Idea of a University is an inconvenient truth for the modern secular academics who swoon over Newman’s liberal-art arguments in the same fashion that they swoon over a Jane Austen novel, as well as for modern Catholics who now practice a theology that is less Victorian in its stridency. The saving grace for these readers of Newman is that the claim that theology is essential because it is a science that yields the absolute truth is secondary to the main claim that theology is essential because it allows one to achieve the secular goal of cultivating the intellect. Newman’s unbending Catholicity has also been allowed to drop from view as time has passed.  

7 The flavour of this paragraph is in some ways an extension of Dale (1972), who (a) rejected the then standard interpretation associated with Harrold (1945, 1947) and Culler (1955) that Newman held a tolerant liberal arts vision for the university and (b) presented a strong revisionist interpretation of Newman as an uncompromising Catholic who wanted a sectarian university with a dominant scientific theology that contained superior truth. Dale (1972) puts forward a spirited and in many ways convincing argument and, given that many liberal arts advocates cite Newman unthinkingly to support their case, his narrative still acts as a useful tonic today. Newman was certainly no Matthew Arnold. Still, this revisionist position does not consider the possibility that the two interpretations are not mutually exclusive and, further, that Newman’s call for the cultivation of an intellect through the study of interconnected disciplines is logically anterior to any other objective. Altholtz (1964) similarly disabuses those who take The Development of Christian Doctrine as an example of the historical method in its modern scientific form. The historical facts are deployed to support Catholic doctrine; they are not decisive protocol statements to gauge Christian “truth”, and this aspect of his position became more pronounced following the poor reception of the book by the Catholic authorities. Finally, it is difficult to determine how this bears on political economy, since, as Newman himself maintained, the Catholic principles are sufficiently broad that they only come alive in their application, and hence it is hard to find examples where economic relationships directly contradict them. Victorian economists were deft at making this point. Whately, for example, contended that the scriptures requires one to give to the poor, but they do not state under what conditions, while John Stuart Mill stated that God said go forth and multiply, but not by how much. For all this, some of Newman’s criticisms of Oriel political economy, as commented on in the previous section, could be interpreted as being driven less by its imperial over-reach and more by the way that it contradicts the scriptures.
Still another reason for the prominent role given to theology in the university structure, and at the time equally as controversial as the preceding argument, was to combat the rise of what was then called *mixed education*, whereby students from all faiths were admitted and in which theological controversies were suppressed in those disciplines, such as history and theology, in which they had scope to break out. The establishment of Peel’s ‘Godless Colleges’ in Belfast, Galway and Cork in the 1845 was, after all, the main prompt for the Catholic hierarchy to recruit Newman to establish a Catholic University in Ireland. Not all of those in his audience were, however, entirely convinced that this institutional development at that precise time was necessary, nor were they necessarily against mixed education (even though most were and the key Dublin authorities and Newman strenuously so), and hence Newman trod lightly on the matter. He did this mainly by accepting, as a given, that mixed education was bad and thereby not dwelling on this issue to the same extent that he did on the more acceptable goal of expanding the mind (see McGrath 1951, p.136ff for the letters relating to this point). It is nonetheless the case that Newman also sought an enlarged theology division (not to mention its presence in each discipline) to achieve the basic Church goal of maintaining the faith and moral values of the flock, which were in danger of straying under mixed education, as well as the primary, and logically anterior, goal of establishing an institution that expands the mind. It should, after all, be remembered that Newman’s university was always going to be a *Catholic* university; even if the second word in this descriptor, “university”, comes before the first word, *Catholic*, in order of priorities.

Catholic educators have since found Newman’s proposed order of priorities to be persuasive and, further, its value has been verified by the fact that all of the great Catholic universities that have since risen to prominence—such as Notre Dame Indiana and Georgetown—make the cultivation of the intellect, in Newman’s fashion, their primary (but never their only) goal. The principle is caught in the contention by Edward “Monk” Molloy (the ex-president of Notre Dame Indiana) that “to be a great Catholic university one needs first to be a great university” (in a verbal delivery at the University of Notre Dame Australia). Strange as it seems, these universities have become successful instruments of the Church by making this instrumental goal a thing of secondary importance. The administrators and guardians
harnessed their horses and carts in the appropriate order. Furthermore, as our increasingly secular age has unfolded, these administrators have expanded the role of this theological tool from sustaining the faith and moral values of their Catholic charges to imbuing all students (whether they be Catholic, non-Catholic or non-believers) with whatever timeless wisdom that might be derived from the scriptures. Given that numerous studies indicate that undergraduates studying economics became more self-regarding as their studies progress, and given the increasing moral dilemmas they subsequently face at their excessively monetarized places of work, this is not necessarily a bad thing (even if certain of the moral values trafficked in the Catholic domain obviously stick in many people’s craws). Marshall’s call for economists to have “cool heads but warm hearts” still holds, even though in his day, Marshall was correctly more worried by the excess, rather than the shortage, of “warm hearts”—times change.

Finally, given all of the references above to the importance of the interconnected nature of the liberal disciplines, it is important at this stage to expand on the contention made very briefly earlier in this section that, paradoxically, Newman did not wish to exclude the vocation-, or profession- or utilitarian-oriented disciplines from a university charged with the task of expanding the minds of its student. He considered this issue in the process of rejecting the arguments of those individuals who sought to maximise utility by transforming universities, holus bolus, into mere professional training institutions ([1873] 1905, p.151ff). He accepted that specialised study in a particular discipline, including a professional discipline, is the chief means by which to advance knowledge in that discipline. But he also believed that something is lost in the process of such specialization and, further, that professionals with utilitarian goals in mind will only truly excel in their discipline if they first enlarge their minds via a liberal education. Indeed, like his ex-Oriel colleagues in their aforementioned debates with the northern critics in 1808-11, Newman believed that there is no real conflict between utilitarian and liberal educational goals, since a liberal education is a “good” in itself and hence is a “useful” end to pursue and, further, it is a necessary prerequisite for excelling in the professional discipline ([1873] 1905, p.163). In other words, a liberal education is both useful as an end and as a means to another useful end. This latter point is justified on the grounds that, in the same way that health allows the body to perform labour, the cultivation of the mind
provides the tools for the professional to perform his or her skills ([1873] 1905, p.166).

Newman then proceeded to contend that these professional-oriented studies are best housed within a university because this ensures that those engaged in these disciplines can see them, as if from above, sitting in a sea of mutually dependent disciplines, and hence they are induced not to claim too much for their own. This is, of course, just another version of Newman’s argument that each discipline, as part of an interconnected whole, should be constrained within its proper disciplinary sphere. He believed that the professional educators, once ensconced in a university, will be constantly reminded of the boundaries of the nearby liberal disciplines and of the importance to their own profession of the elemental knowledge (whether it be mathematics or theology) derived in these nearby liberal disciplines. It also should be noted that, given that political economy at this stage had yet to develop to the point where it was considered (as it is today) to be a liberal discipline with an elemental knowledge and engine of discovery of its own, it is possible that Newman regarded it as one of these utilitarian-oriented divisions (see, for example, ([1873] 1905, p.166) and hence that the arguments levelled in this context (in Discourse 7) were simply reinforcing his critique of the Oriel political economy (in Discourse 4). Either way, modern liberal-arts advocates who wish to use Newman’s educational vision as a weapon to combat the growth of professional disciplines within universities should think again: he was explicit that the professional disciplines were to be housed within the university’s walls. Newman would, for all this, have found uncongenial the extent to which stand-alone vocational degrees dominate the modern university system.

By way of a conclusion to this section, it is worthwhile to reflect on how Newman’s call for the cultivation of the student’s intellect within a balanced university structure of interconnected disciplines (liberal and professional) relates to modern economists. The modern discipline of economics is, after all, one of the most interconnected of all disciplines.8

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8 One referee suggested that modern economics is not inter-disciplinary, since it is dominated by an orthodox framework that eschews historical specificity, deploys a narrow instrumentalist psychology, and celebrates simplistic quantitative methods at the expense of all other methods. I do not believe that this is necessarily the case when practised by the leading orthodox economists within the better economic departments, and the extent to which it is true for Australian economic departments (and the referee has a sound point in this regard) is determined by the degree to which certain disciplinary
Historians of economic thought are especially alive to the way that successive hordes from near-by disciplines have swept into the domain of economics and how each of these invasions, in turn, suffered from imperial over-reach and was forced into a partial retreat. It is seen in: the excesses of the analytical-cum-logical model building that was championed at Oriel in Whately’s day and from Westminster by Ricardo’s epigones (i.e. the practitioners of Schumpeter’s infamous Ricardian vice); the subsequent quest to reverse this immoderate use of analytical modeling by drawing excessively upon the nineteenth century revolutions in historiography (which led to the tiresome Methodenstreit and endless dry-as-dust economic histories); the overkill in the use of mathematical physics in the mid-twentieth century with the arrival of the French Boubakanists and the revival of the Pareto program within the Harvard economics department (which had earlier been kept in check by Marshall’s judicious use of mathematical appendices and his decision to “burn the mathematics”); the late twentieth century surge in inferential statistics that is yet to abate (even though we now have econometricians who seem to know nothing about price theory); and, I expect in the early twenty hundreds, a never-ending influx of psychologists into behavioural economics (the excesses of which have started to irritate of late).

These and other waves have left a contribution to economics that is immeasurable—and indeed, has made economics the great intellectual tradition that it is today—but all swept too far and left messy debris in their wakes. Each generation did not have the advantage of a dominant personality like Marshall, who, in the fashion of Newman, had the sense to see the interconnectedness of history, mathematics and analytical modeling, without allowing each to grow beyond its proper realm. The excesses of imperial over-reach are also, of course, reflected in the far more commented upon invasions in the opposite direction by economists (invariably led by Chicagoans) into allied disciplines, the successes of which have led to one having (almost) a greater likelihood of bumping into economists in North American politics or sociology skill sets have been allowed to grow beyond their proper spheres. This rather proves Newman’s point that the university structure should be designed with the specific purpose of checking such imperialistic hubris. Indeed, at the risk of upsetting my heterodox colleagues, I also believe that orthodox economics, when properly practised (and even though it is always on the verge of corruption from imperialist excess), is an extension of a rich tradition that is more inter-disciplinary and more complex than its critics presume.
departments than scholars trained in those sciences. Still, as already stated, the tortuous disciplinary history of economics has led to the great intellectual tradition that is economics and, since Newman’s philosophy is driven by the idea of teaching a *tradition* rather than mere subject matter, a segue presents itself to turn to this issue.

4. TEACHING INTELLECTUAL TRADITIONS

The actual process of teaching within a liberal discipline, including now economics, may not take up a prominent place in *The Idea of a University*, but the nucleus of Newman’s vision of the teaching process is, in fact, there stated in brief ([1873] 1905, pp.45-50). The essential features of these teaching practices are, however, more fully outlined in *The Rise and Progress of Universities*, which was written in 1854-5, immediately after the writing of the two sets of discourses that eventually constituted *The Idea of the University*, and published first in serial form in the *Catholic University Gazette*, then as *The Office and Work of Universities* in 1856, and finally under the present title in volume three of his *Historical Sketches* ([1872] 1909).9

The ideas contained in *The Rise and Progress of Universities* are, in short, the product of the same temporal stream of thought. The most striking feature of the teaching process advocated by Newman is the relegation of delivering a lesson that is constituted by a series of articulated points to something of minor importance and the near complete absence of university teaching techniques that seem to be the focus of those individuals who have arrogated the role of “teaching the teachers”. This is because Newman recognized that what is being conveyed (to expand a student’s mind) is a living intellectual tradition, partly oral, in which extremely complex and interconnected ideas, which are sometimes ineffable or at least not easily articulated in the written form, are conveyed through extended personal interaction between teacher and students, and students and students, at a single physical site over an extended period of time and, as the reader would by now expect, with no one discipline growing beyond its proper place. The teacher is, in other words, an individual who assists in passing on the tradition, in which he or she has also been raised, to the next generation of students, who largely teach themselves in a social setting.

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9 In the twentieth century numerous popular editions were published under the title *University Sketches* (see Tierney 1964), and this may be the title by which some readers know this work. The 1909 impression of the 1872 edition is used for citation purposes in this essay.
and thereby, in turn, keep the tradition alive for a next generation ([1873] 1905: 147). Newman’s “teacher”, of course, also has responsibility for setting exams and delivering compulsory classes of the traditional sort, but Newman believed such duties to be mainly a tool to prevent the students from falling into idleness and losing their moral compass rather than to actually convey knowledge.\(^{10}\) The Dickensian “M’Choakumchild” or the teacher as a conveyer of facts and cut-down ideas—via the ubiquitous “bullet point” slide show—certainly has a lesser role in Newman’s university. In Newman’s world, the modern university teacher as “lecturer”, who professes to do so much, really does so little if he or she refuses to participate in the conversation that constitutes the living tradition.

Newman builds this argument in three steps. The first and most important principle is that the complex and interrelated parts that constitute a lengthy intellectual tradition (hereafter occasionally referred to as traditional knowledge) cannot be articulated and conveyed in their entirety from one person to another in a written form, whether this form be a learned book, or a textbook or an article, or, in today’s world, an overhead slide or a web-site. In modern terminology, the written expression of an idea is an inadequate abridgment of a larger and partly ineffable or unspecifiable body of knowledge. Newman expanded on this argument by considering the Victorian revolution in the transfer of knowledge that was, in many ways, equal to the information technology revolution with which we are confronted today. Specifically, the printed book, article and newspaper, like the web-pages of today, had become ubiquitous and cheap to access in the first part of the nineteenth century through advances in publishing and distribution technology. Newman recognized that this revolution questioned the very nature of the university: “Why, you will ask, need we go up to knowledge, when knowledge comes down to us?” ([1872]

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\(^{10}\) Indeed, Newman at times seems to belittle the role of the teacher in the knowledge “baton change” itself, suggesting that his or her participation in this process is just as much about preventing the self-educating students from developing intellectual arrogance and conceit as it is about assisting the students to immerse themselves in the tradition ([1873] 1905, p.148ff). I would nonetheless argue that, in spite of these occasional statements by Newman, the general drift of his narrative is to indicate that the teacher does have an important role as a guide to the traditional knowledge via personal, avuncular and inspirational interaction with the student. I would also add that the modern lecture, even perhaps replete with bullet points, also has a greater role than Newman seems to suggest: all students, after all, need to be presented with a structure. See also Ker (2011) on this and related points about teaching in Newman’s ideal university.
Newman welcomed this revolution in publishing, but he was adamant that the ubiquitous printed material could never replace the oral traditions that took place on the university campus. In his words:

whenever men are really serious about getting what, in the language of trade, is called ‘a good article,’ when they aim at something precise, something refined, something really luminous, something really large, something choice, they go to another market; they avail themselves, in some shape or other, of the rival method, the ancient method, of oral instruction, of present communication between man and man, of teachers instead of learning, of the personal influence of a master, and the humble initiation of a disciple, and, in consequence, of great centres of pilgrimage and throng, which such a method of education necessarily involves.

(Newman [1872] 1909, pp.8-9)

Newman was not prepared to provide a precise theoretical or empirical justification for why this was the case. His hesitancy was possibly, in part, due to his belief that this contention was effectively indisputable, if not self-evident, but it was also, in part, because it was beyond his abilities to explain. In his words:

I am not bound to investigate the cause of this, and anything I may say will, I am conscious, be short of its full analysis;—perhaps we may suggest, that no books can get through the number of minute questions which it is possible to ask on any extended subject, or can hit upon the very difficulties which are severally felt by each reader in succession. Or again, that no book can convey the special spirit and delicate peculiarities of its subject with that rapidity and certainty which attend on the sympathy of mind with mind, through the eyes, the look, the accent, and the manner, in casual expressions thrown off at the moment, and the unstudied turns of familiar conversation.

Till we have discovered some intellectual daguerreotype, which takes off the course of thought, and the form, lineaments, and features of truth, as completely and minutely, as the optical instrument reproduces the sensible object, we must come to the teachers of wisdom to learn wisdom, we must repair to the fountain, and drink there. Portions of it may go from thence to the ends of the earth by means of books; but the fullness is in one place alone. It is in such assemblages and congregations of intellect that books themselves, the masterpieces of human genius, are written, or at least originated.

(Newman [1872] 1909, pp.9-10)

Newman’s unwillingness to give a more precise reason for why some knowledge cannot be articulated in the adumbrated form is, perhaps,
one of the failings of his education vision, and will be addressed more fully in the final section when I draw upon a number of the ideas of like-minded twentieth-century philosophers who designed a specific vocabulary to account for this knowledge-transfer problem. It is nonetheless almost self-evident in the history of economics, particularly the way in which those economists trained in advanced mathematics or high theory at certain academies (such as the Cambridge Mathematical Tripos in the nineteenth century or Chicago post-graduate economics in the 1970s) have been able to master new problems emanating from certain research programmes in days that would take a lifetime for others to solve via consulting the written works of these academies (see Moore 2005 on this point). It also should be noted that Newman did in fact seek to demonstrate the validity of this principle by way of illustration, which, as we will see in the next section, was also the favourite means by which twentieth-century philosophers (with many references to cooking recipes) carried this argument home.

Newman dwelt in particular on the example of teaching manners to a gentleman. He pointed out that the qualities that make a gentleman—“the carriage, gait, address, gestures, voice; the ease, the self-possession, the courtesy, the power of conversing, the talent of not offending; the lofty principle, the delicacy of thought, the happiness of expression, the taste and propriety, the generosity and forbearance, the candour and consideration, the openness of hand”—are not learned from books, but are absorbed via prolonged interaction with others in the physical places that constitute “society”. In short, you “cannot fence without an antagonist, nor challenge all comers in disputation before you have supported a thesis”; and in like manner, “you cannot learn to converse till you have the world to converse with; you cannot unlearn your natural bashfulness, or awkwardness, or stiffness, or other besetting deformity, till you serve your time in some school of manners” ([1872] 1909, pp.10-11). In another illustration that seems to anticipate the examples from science later given by T. S. Kuhn and M. Polanyi, Newman argued that science is similarly not conveyed and propagated merely by books and investigations conducted in “silence” and “solitude”. Not even scientific thought can dispense with the “suggestions, the instruction, the stimulus, the sympathy, the intercourse with mankind on a large scale, which such meetings secure”. This, he argued, explained the rise of the national scientific meetings in his time:
A fine time of year is chosen, when days are long, skies are bright, the earth smiles, and all nature rejoices; a city or town is taken by turns, of ancient name or modern opulence, where buildings are spacious and hospitality hearty. The novelty of place and circumstance, the excitement of strange, or the refreshment of well-known faces, the majesty of rank or of genius, the amiable charities of men pleased both with themselves and with each other; the elevated spirits, the circulation of thought, the curiosity; the morning sections, the outdoor exercise, the well-furnished, well-earned board, the not ungraceful hilarity, the evening circle; the brilliant lecture, the discussions or collisions or guesses of great men one with another, the narratives of scientific processes, of hopes, disappointments, conflicts, and successes, the splendid eulogistic orations; these and the like constituents of the annual celebration, are considered to do something real and substantial for the advance of knowledge which can be done in no other way.

(Newman [1872] 1909, p.13)

The second principle, which is intertwined with the first to the point where the two can barely be discussed separately, is that any tradition which cannot be articulated fully via the written word must be conveyed through prolonged personal interaction at a specific physical site. Newman believed that the metropolises of the great countries, such as London and Paris, provide a university atmosphere of sorts even if one excluded the places of learning that are housed there. The individuals who contribute to newspapers, magazines, reviews, and periodicals; who attend the learned and scientific societies; and who study for the professions in the law courts and hospitals, necessarily invest the city “with the functions of a University; and that atmosphere of intellect, which in a former age hung over Oxford or Bologna or Salamanca”. These citizens of the “virtual” university have become “acquainted with the habits, manners, and opinions of their place of sojourn, and done their part in maintaining the tradition of them” ([1872] 1909, p.14). This is patently an asset for any country, but Newman believed that there was still a place for a university proper, where the “education sought and given should be based on principle, formed upon rule, directed to the highest ends” rather than “left to the random succession of masters and schools, one after another, with a melancholy waste of thought and an extreme hazard of truth” ([1872] 1909, p.14).11 He placed particular

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11 Like an historical echo, this argument is picked up in the modern calls for institutions of authority to act as ballast for the indiscriminate intermingling of useful, dubious and
importance on the selection of the site, arguing that it should be central and needed to be a liberal and noble one that inspires those who attend ([1872] 1909, p.24).

The main purpose of a physical site, however, is to allow a tradition to develop through personal interaction. It will lead to the type of site-specific “oral tradition” that many prominent economists know well and obviously value, since they claim it (and thereby the associated greater nuance and sophistication not on their printed pages) for their site-specific schools even if this is not perhaps warranted (see, for example, Steindle 1990 for the dispute between Patinkin and Friedman over whether or not there was a Chicago “oral” tradition in the 1930s). Newman calls this site-specific tradition or spirit the *genius loci*, which in Roman religion was the protective spirit of a particular place. As he stated in *The Idea of a University* itself, the pupils that constitute a student body come from very different places, and with widely different notions, and “there is much to generalize, much to adjust, much to eliminate, there are inter-relations to be defined, and conventional rules to be established, in the process, by which the whole assemblage is moulded together, and gains one tone and one character” ([1873] 1905, p.147). Eventually, a youthful community will:

constitute a whole, it will embody a specific idea, it will represent a doctrine, it will administer a code of conduct, and it will furnish principles of thought and action. It will give birth to a living teaching, which in course of time will take the shape of a self-perpetuating tradition, or a *genius loci*, as it is sometimes called; which haunts the home where it has been born, and which imubes and forms, more or less, and one by one, every individual who is successively brought under its shadow.

(Newman [1873] 1905, p.147)

The third principle relates to the precise mechanism by which the tradition is conveyed via personal interaction at the physical site. Newman’s account of this process is, like his claim that traditional knowledge cannot be conveyed in the written form, less than satisfactory. Various references are made to oral delivery, personal interaction, the charismatic influence of a teacher, challenge and response within a dialogue, and so forth, but Newman delineates no set

wrong information on various web-sites and in the blogosphere. I would like to thank an anonymous referee for providing this insight.
of mechanisms for conveying knowledge with any precision. Indeed, at times, he seems to imply that a tradition spontaneously forms via the students interacting over a prolonged period of time and, as mentioned earlier in this section, with little input from the instructor. He wrote of a multitude of “young men, keen open-hearted, sympathetic, and observant”, who, coming together and freely mixing with each other, invariably “learn from one another, even if there be no one to teach them” ([1873] 1905, p.146). Their conversation is “a series of lectures to each, and they gain from themselves new ideas and views, fresh matter of thought, and distinct principles for judging and acting, day by day” ([1873] 1905, p.146).

These sorts of passages are, however, invariably followed, after a passage or two, with references of the importance of a charismatic teacher to oversee the development of the tradition while, at the same time, always attending to the student’s moral and religious needs. The general tenor is, in fact, that the academic leaders have the same stamp as the students, since they were educated within the same tradition in the same geographical site, and hence are participating in what Oakeshott would later call the same conversation. They are acting as indispensable guides, and, not surprisingly given Newman’s experience with charismatic Oriel dons of the likes of Whately, they must exert personal influence. In Newman’s world, everything, including the rule of law and system, comes second to personal influence, personality and charismatic interaction: “I say then, that the personal influence of the teacher is able in some sort to dispense with an academical system, but that the system cannot in any sort dispense with personal influence” ([1872] 1909, pp.74-5). This last point is a broadside at what Newman called the “red-tapists”, who, like the managerialists of most modern universities, can manage everything but the personal, and thereby run a university as if the personal was of no consequence.

5. NEWMAN’S CONCEPT OF “TEACHING WITHIN TRADITIONS” AND HIS THEOLOGY

I believe that the three principles just articulated neatly capture the nature of Newman’s vision of teaching within intellectual traditions, even if one is left asking for more about the specifics underpinning some of the contentions. To some extent a greater comprehension of Newman’s concept of an evolving and a partly ineffable tradition within a site-specific university could be gleaned—and many of the particulars filled in—by interpreting it as an extension of his theological writings
and his closely allied conservative philosophy of the natural and social
world. Answers could then be found in his famous religious tracts of
this period. The herculean task of tracing these links, however, is
beyond the scope of this study and, more importantly, perhaps better
left to professionally trained theologians. I therefore restrict myself to
the broad outlines of his theological position that are relevant to my
main point, which, of course, turns on the inadequacy of the written
word and cut-down verbal deliveries as a means to convey sophisticated
ideas in an inter-disciplinary setting. The connections are, in my view,
clear enough, even if a little frightening to the liberally minded if
pushed too far.

Specifically, as a member of the ‘Oxford Movement’, and hence even
before his conversion to Rome, Newman vehemently opposed the
Evangelical belief that religious knowledge could be accessed directly
from the Bible and the associated belief that such knowledge should be
derived by private and independent judgment. The principles that were
revealed from heaven and articulated on the page, he argued, were too
broad in nature to convey their full meaning, too limited in scope to
capture every required application, too often silent on important issues
or figurative and unsystematic in nature, and too open to multiple
interpretations and, worse, multiple interpretations that invariably
induce religious schisms. The position was articulated in a particularly
rich fashion in *The Development of Christian Doctrine* ([1878], 1927),
which was first published in 1845 shortly after his conversion and
touched upon earlier in this essay in relation to Newman’s belief that
theology was the sovereign science. Newman argued that there were so
many gaps in the presumed coverage of the scriptures that these gaps
could only be part of God’s original design. The scriptures therefore
needed “completion” ([1878] 1927, p.62) and this was to be achieved
by reading them within a living tradition, which he believed should be
the Catholic tradition in which Bishops in the apostolic line oversee an
evolving system of doctrines, the task of which is never complete
([1878] 1927, pp.78, 90).  

Within this vision, the scriptures are

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12 Absorbing Newman second hand in a modern essay like this one is to some extent a
mistake, since his lyrical style always conveys more than academic adumbration permits.
In relation to the above point he writes: “It cannot, as it were, be mapped, or its contents
catalogued; but after all our diligence, to the end of our lives and to the end of the Church,
it must be an unexplored and unsubdued land, with heights and valleys, forests and
streams, on the right and left of our path and close about us, full of concealed wonders
and choice treasures” ([1878] 1927, p.71).
effectively pregnant texts—not unlike a Kuhnian paradigm or the positive heuristic of a Lakatosian research programme—out of which other things grow when they are subjected to exegeses and applied to, or confronted by, the unfolding problems of the secular world. My point, of course, is that Newman believed that all ideas, not just religious ideas, fail to be fully expressed in the written language and only come alive when applied to the concrete particulars within such traditions. Indeed, the similarities between Newman’s censure of private judgment in relation to reading the Bible outside a tradition and his disdain (admittedly a little heavy handed) of Victorian man accessing the cheaply printed material outside a university tradition are sufficiently manifest that they need no further labouring on my part.

This theological stance sweetly side-stepped one of the key criticisms that Protestants levelled at the Church of Rome, namely, that Catholic doctrine contains ideas that are not presented in the scriptures. Newman argued that this is precisely what is required. There remained, however, the related Protestant charges that the trajectory of Catholic doctrine has been marked by controversies and inconsistencies, and in the process had been corrupted. The implication of this is that any intellectual tradition, secular or otherwise, may be corrupted and should not simply be accepted because it is tradition. Newman responded to these historical criticisms by deftly deploying what was soon to become known as the historical method to demonstrate that this was not so in the case of Catholic Doctrine. As mentioned in section three above, this entailed the use of a series of tests (changed to notes in the second edition), which were seven in number, to demonstrate that the unpacking of the principles in the scriptures, themselves true by revelation and with the unpacking overseen by those in the Apostolic line, led to a healthy rather than corrupt development in doctrine. These tests are in some ways analogous to the tests that determine whether a particular Lakatosian scientific research programme is degenerating or progressive, but the number of differences are as numerous as the similarities—not least because Newman paradoxically starts with the presumption that his Catholic programme is the absolute truth and cannot be contradicted—that any such analogy must be drawn carefully. Still, it is an analogy worth making since economists who do recognize that their discipline is a tradition of evolving doctrines have sought (especially in the 1970s) to model (and test) this evolution along Lakatosian and other philosophical lines in a way that does not turn on
In any event, Newman’s seven tests were, specifically, (1) *Preservation of a Type* (1878 [1927], pp.171-8), by which any doctrinal growth should correspond to its rudiments and thereby ensure that a unity of type is maintained; (2) *Continuity of Principles* (pp.178-85), by which the original principles are abstract and permanent while the doctrines that evolve from these principles relate to facts and bring the principles alive; (3) *Power of Assimilation* (pp.185-9), by which the doctrinal developments should assimilate and incorporate other ideas to create a greater order; (4) *Logical Sequence* (pp.189-95), by which the development, once complete, should be capable of logical expression in the sense that it is the logical issue of its origin; (5) *Anticipation of its Future* (pp.195-9), by which vague and isolated aspects of an early idea should be seen, fully grown or realized, in subsequent developments; (6) *Conservative Action Upon Its Past* (pp.199-203), by which doctrinal development should conserve and illustrate, rather than contradict, the preceding developments; (7) *Chronic Vigour* (pp.203-208), by which the doctrinal development persists over long periods of time and is not transient. With this system, Newman effectively historicized theology in the English speaking world, and, along with John Stuart Mill, Auguste Comte and numerous other pre-Darwinian philosophers in other disciplines (including Victorian political economy), had dynamized once static categories in a startling and innovative way.

Newman finessed this argument by demonstrating the inadequacy of the rationalist and scientific processes, as they were interpreted in his day, outside an intellectual tradition of the type described above. This line of reasoning - which was embedded in his sermons and pamphlets of the 1840s and 1850s, but particularly developed in *The Development of Christian Doctrine*, and later in *Grammar of Assent* (1870) - clearly

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13 Entertaining sport could be made by transforming Newman’s system into the Lakatosian frame, with Catholic categories mapped on to the hard core, positive heuristic, negative heuristic, protective belt, degenerating and progressive research programmes, and so forth, but ultimately none of Newman’s test criteria are empiricist in nature and, as already mentioned, he presumes as true what he sets out to test, and hence it must remain an analogy only. A better analogy, moreover, is perhaps with the pluralist methodological approach advocated by economists such as Bruce Caldwell, in which many prescriptive criteria, rather than a single criterion, are used to demonstrate a theory’s worth.
drove his understanding of how secular knowledge, not just theological knowledge, developed. Newman anticipates the anti-justificationist and post-structuralist writings of the twentieth century (from Popper to Derrida) by demonstrating the way that language, syllogistic logic and naïve empiricism are rarely able to achieve the end, namely objective truth with certainty, for which the Victorian man of science press gangs them. Newman, true to his Oriel heritage, never doubted the importance of logical reasoning and the use of one’s senses (in the English empiricist tradition) in the process of making judgments (see Cameron 1962 and Horschild 2003 on this point), but he is adamant that they are of use only once their limitations are recognized. He believed that the object of our attention could not be grasped as a “whole idea” in an instant via the senses and especially cannot be captured in the written or verbal form (and certainly not through the study of a single discipline). In addition to skating over the normal anti-empiricist arguments (such as variations on Hume’s problem, infinite regresses when tracking the empirical content of the premises in a chain of syllogisms, and the thorny issue of probabilities in scientific judgment), Newman argued that aspects of objects and their relations are grasped in different definitions, statements and hypotheses and at different times; these terms, concepts and contentions, as well as the syllogisms that constitute the scientific analysis, come alive only when they are deployed in different applications to concrete particulars; and they evolve in such a way that they strengthen and contradict each other until eventually they accumulate to approximate, but never capture, the “perfect image” of the reality ([1878] 1927, pp.56, 99, 125ff; 1870, pp.252, 257, 267, 272, 340). Indeed, there are so many aspects to be considered that the successful conveying of the approximate “image” may be undertaken in entirely different ways: “Two persons may each convey the same truth to a third, yet by methods and through representations altogether different” ([1878] 1927, p.56).

The implication is that ideas become more clearly expressed the longer they are taught and the longer they have had time to evolve, even though, as we have seen, there is scope for their corruption (and presumably not all of the same tests would be required in the non-theological disciplines and hopefully one of these tests would be some sort of empiricist-oriented criteria to determine verisimilitude).\(^\text{14}\) This

\[^{14}\text{The length of time that it takes for the image of the object at hand to come in view, which was often inter-generational, together with the broad nature of the articulated\}
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Evolution is also a collective effort rather than a simple product of individual judgment. Each individual does not grasp what he is trying to comprehend, is in a state of confusion and is less than confident. Each individual’s confidence, however, accumulates and each individual sees the modifications and perspectives of other individuals contributing to the tradition until the idea enters an institutional life of a society. Newman famously capped this analysis off in the *Grammar of Assent* by introducing the concept of an “illative sense” to describe how individuals finally give their personal assent to a contention relating to the objective world when the senses and logic do not quite permit this. Specifically, he argued that an implicit reasoning, driven by what he called ratiocinative faculty or illative faculty, allowed one to weigh the anterior probabilities of a contention, often sub-consciously, to close the gap between what logic allows and what assent requires (Newman 1870, pp.330ff). Furthermore, he believed that if an individual’s mental powers are developed to dwell on higher values, this faculty is at a perfect pitch and is called the illative sense (as in good sense). This is itself derived from the Aristotelian tradition of developing ethical and intellectual virtues in an individual’s constitution to allow him or her to make sound judgments. To Newman, it is this sense that drives the grammar of assent that is required for one’s belief in God.

Newman’s vision of doctrines (theological or secular) that evolve within a living tradition at a site-specific location, and which are tested by someone with a philosophical habit of mind to determine (or to illustrate in the case of Catholic doctrine) the extent to which the developments are healthy or corrupt (and to which assent is given via an illative faculty), was brilliantly innovative for the time in which Newman was writing. It was, however, also a very strange system to those of his contemporaries who were in the process of rejecting conventional religious beliefs while holding firm to the Lockean principle that conviction should be proportional to empirical experience that supports it. The super-rationalist and hyper-critical Stephen brothers - the arch-conservative in the form of James Fitzjames Stephen (1870) and the radical-liberal in the form of Leslie Stephen (1877) -

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phrases eventually settled upon, explains why Newman became increasingly comfortable with the complex, and the then evolving, notion of Papal Infallibility. Judgments took so long to be derived and were open to so many interpretations once in their final form that a Catholic intellectual is rarely constrained in making his or her own judgments (see Dulles 1990).
consequently made good sport out of Newman’s circular and gap-ridden logic, and what they stated then still makes entertaining and persuasive reading now.\(^{15}\) Newman’s anti-modernist inclination (held in check by his firm belief in the worth of logic and empiricism once their limitations were recognized) both anticipates the anti-justificationist and linguistic-turn movements of our age and harnesses the conservative movements of his age. In fact, in relation to the latter, when taken out of its religious context and stripped of its innovations, his position is to some extent a mere riff on Edmund Burke’s claim that an individual’s judgment is necessarily flawed and that the “private stock of reason” is less than that contained in the living tradition. In other words, time and cooperation are necessary and we should all join Burke, as in his *Reflections of the French Revolution*, in availing ourselves of “general bank and capital of nations and of ages”. It therefore has all the faults and merits of this approach. The claim that Newman’s vision of the development of knowledge was a variation of English conservative political thought has been made many times before (see, for example, Kenny 1957), and it has validity, even if Newman was interested less in political stability and more in determining what is truth and right as Aristotelian ends in themselves. More recently, however, Alasdair MacIntyre (of *After Virtue*) has traced his non-Burkean defence of “tradition” to Newman, but without much explanation, and thereby has sent non-Catholics who are enamored with MacIntyre’s approach back to read Newman both seriously and in a

\(^{15}\) The Stephen brothers are a formidable force on this issue. Although they admired Newman’s lyrical style and his capacity to argue (in their eyes) an unwinnable case, they ultimately thought that he was fraudulent in twisting reason for his own religious ends. Newman, they stated, presumed true what he set out to test; the tests (such as continuity, consistency and so are) can very well support any number of religions and, in any event, they are mechanisms that determine relative worth (such as Catholicism is superior to Protestantism), not absolute mechanisms that determine truth (since both religions could be wrong); any continuity and duration in Catholic Doctrine is due to the way that the Church was successfully established to serve the needs of the time at its birth, yet the results of continuity and strength that springs from this initial success are used to justify its existence in the present (which is a variation of the radical-liberal argument that there is no reason to believe any tradition embodies truth and virtue); assent via the illative sense does not lead to certitude and has little to do with establishing scientific truth; and so on. These and many other arguments, though themselves problematic in our postmodern world, provide a cool douche for those who accept Newman’s admirable rhetoric in an unquestioning fashion. Note also that modern Catholic doctrine is something different again; but see Hodge & Duhs (2011) for an appraisal of orthodox economic ontology and teleology from the perspective of Joseph Ratzinger (Pope Benedict XVI).
non-Burkean light (and invariably with an Aristotelian hue; see Hochschild 2003). Whatever its precise roots, and for all its innovations, it is clear that Newman’s higher-education vision did not materialize out of thin air, and is itself part of an intellectual tradition that continues.

6. WHAT IS MISSING IN NEWMAN’S FRAMEWORK AND CONCLUDING COMMENTS

Thus, given the limitations of language, logic and empiricism and the inability to make personal judgments in an a-historical vacuum, students need to be prepared within a living tradition of interrelated disciplines so that they are raised to a sufficiently virtuous pitch (intellectually and morally, and captured in Newman’s concept of the philosophical habit of mind) which allows them to make the right judgments. But the fact remains that, even with the insights gained from drawing on Newman’s wider religious writings, there is a lack of comment on the precise mechanism by which any given tradition is conveyed from generation to generation. It is, I believe, insufficient to make references to self-perpetuating traditions, students teaching students, genius loci and charismatic dons. The reader is naturally left wanting more. The focus on the need for oral communication particularly leaves one unsatisfied. Surely instructors, like myself, who spend inordinate amounts of time trying to unpack the key strands of a tradition by articulating them in the written form, are not working in vain; surely our efforts to specify and map out the tradition in a written form, even if the result is never more than inadequate abridgments of this tradition, precedes (at least in the modern world) any discussion of this tradition with an interactive audience? Answers to these questions may, in part, be found within a broad-based intellectual movement that emerged in the mid-twentieth century (largely emanating from within the history and philosophy of science) that drew attention to the limitations of the Enlightenment quest to reduce knowledge to a set of articulated principles that could be taught, acquired and executed. Scholars from this period noticed that many intellectual activities seemed to be performed without the guidance of previously articulated rules and, further, that the unspecified knowledge actually guiding these activities could only be conveyed by demonstration within a master-apprentice system. One or two of these scholars (but definitely not all of them) also had clear sympathies with the liberal-conservative tradition established by Burke, if not the singular Anglo-Catholic
tradition established by Newman. Their more precise accounts of what may be called the knowledge “baton transfer” problem may therefore be interpreted as more sophisticated explanations of the issue with which Newman was grappling. Consider just four such prominent philosophers in turn.

(1) Gilbert Ryle indirectly considered the transfer of ineffable knowledge in his critique of a mind-body dualism in the *Concept of Mind* (1949) and attendant tracts. Specifically, in the process of rejecting the mind-body dualism of the “dogma of the ghost in the machine” - namely, our predisposition to make the category mistake of believing that any witnessable and intelligent performance (the machine) is preceded by a mental act of calculation involving previously learnt regulative propositions (the ghost) - Ryle demonstrated that a range of activities (from cooking to fly fishing) are not performed by adhering to articulated rules; that even the limited number of regulative criteria do not have rules for their application to the varied scenarios; and that the more important skills for the successful performance of the activity are learnt, as acquired dispositions, via example, practice and criticism. (2) Michael Polanyi, in his landmark publications *Science, Faith and Society* (1946), *Personal Knowledge* (1958) and *The Tacit Dimension* (1966 [1962]), similarly explained how ineffable knowledge is inculcated as tacit knowledge. In addition to wheeling out the usual metaphors (from golf to swimming) to demonstrate how activities are not necessarily guided by regulative propositions and that such rules are no more than inadequate abridgements of the ineffable procedures learnt within the tradition of science, Polanyi argued that tacit knowledge - which is the subsidiary or instrumental knowledge that underpins the focal knowledge driving an intelligible action - is absorbed through imitation and criticism.16 This imitative process, which on the primordial level of animals is called *mimesis*, requires students to place their confidence in,

16 The idea of tacit knowledge, now well worn, draws a distinction between the focal awareness of the object of our attention and subsidiary awareness of the instrument by which the object of our attention is manipulated. For example, when using a hammer to drive in a nail, the focus is on the nail being hammered even though it is the muscles of the hand which are being manipulated to conduct hammering (Polanyi 1946, p.55ff). Thus the manipulation of the muscles, and therefore the hammering, is not undertaken directly (we are not focally aware of them), but indirectly via an examination of the hammer hitting the nail (the focus of our attention). Ability to manipulate the hammer is therefore subsidiary or instrumental knowledge rather than focal knowledge.
and bow to the authority of, those who are the leading practitioners in the field (Polanyi 1946, p.206). It was in this context that Polanyi famously drew parallels between scientific learning and the medieval guild system in which an apprentice absorbs knowledge by imitating a master (Polanyi 1946, p.54). (3) Thomas S. Kuhn took a similar line to Polanyi in *The Structure of Scientific Revolutions* (1970), in which he expressed variations of the above ideas via the new lexicon of “paradigm”, “incommensurability” and “scientific revolutions”. Kuhn (1970, p.47) argued that the paradigm as “an exemplar” propels the paradigm as a “constellation of beliefs” into research activity, and explained how a novice immersing himself in a paradigm effectively learns by “finger exercise”. (4) Michael Oakeshott, who is closest in alignment with Newman, also considered the transfer of ineffable knowledge in a range of works, but particularly in the essays contained in *Rationalism in Politics* (1962). He rejected the Enlightenment proposition that the discovery of abstract criteria would lead to unbounded prosperity and human happiness. He drew on a range of metaphors (but particularly cooking) to show that much knowledge is imparted and acquired rather than taught and learnt. Such knowledge exists only in practice within an unfolding tradition, and the only “way to acquire it is by apprenticeship to a master - Not because the master can teach it (he cannot), but because it can be acquired only by continuous contact with one who is perpetually practicing it” (Oakeshott 1962, p.11). Any articulated rules are not construed in advance of skilled activity and, as inadequate abridgements of the ineffable procedures actually followed, will never be more than a caricature of that activity.  

Many other philosophers from the middle decades of the twentieth century could also be selected to illustrate the intense post-war interest in the knowledge “baton transfer” problem, but I believe that my key point has been made. These philosophers, at the very least, provide a vocabulary to better grasp the nature of Newman’s argument that knowledge is most effectively transferred from master to pupil through

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17 The similarities between the works of these four scholars have drawn comment in the past. Agassi (1981, pp.1-2) and Moleski (2006-7) consider the sticky issue of the extent to which Kuhn drew upon Polanyi. Lakatos (1971), Agassi (1981) and Franco (1990) draw attention to the resemblance between the political traditionalism of Oakeshott and the scientific traditionalism of Polanyi. For general a discussion of Oakeshott, see Minogue (1975, 1991). See also Masterman ([1970] 1986) for the different meanings of Kuhn’s “paradigm” used in the passage above.
extended contact in one location. Specifically, and with the full realization that a certain amount of lower-case “whig” historiography is at play, Newman’s argument amounts to the claim that imitation, practice and criticism involved in the master-apprentice system constitute the best way that the unacknowledged tacit knowledge is transferred from generation to generation. This modern vocabulary also inadvertently draws attention to a point that may have troubled the reader throughout the above narrative; namely, the degree to which knowledge is actually ineffable. Nearly all of the aforementioned philosophers of the mid-twentieth century seem to restrict the idea of “ineffable knowledge”, and hence the need to teach by demonstration, to certain activities that involve skill in applying traditional knowledge or to the deployment of procedures by which to expand traditional knowledge (i.e. the process of discovery and justification). Oakeshott was the most explicit in delimiting that part of knowledge which is ineffable and that which is not by distinguishing between “technical knowledge”, which is articulatable in a precise and logical form (and hence may be written down in a book, learned and put into use), and “practical knowledge”, which is not susceptible to precise formulation and may only be inculcated through a living tradition. Ryle (1946) similarly distinguished between “knowing how” and “knowing that”. This insight is of some importance, since Newman’s vision may be unconvincing to those who believe that undergraduate economics is, in fact, accepted doctrine of the “technical knowledge” or “knowing that” variety.

Personally, however, I do not think that it matters whether or not one thinks that economic knowledge is partly ineffable, even though I believe that some of it is patently so. The endless, effectively infinite, nature of the subject matter of economics is sufficient for Newman’s model to hold and for ineffability to be effective by default. Specifically, the traditions that have been imposed on economics in the past by the various imperial disciplines that have swept over its domain, combined with the singular traditions that have emerged within its own boundaries, has created a body of knowledge that is impossible to convey in a lifetime, let alone a four-year degree, even if this knowledge is technical in the Oakeshottian sense. The effective limitless extent of this knowledge, combined with its Newmanite inter-connectedness, means that only elements of this knowledge and its relations can be absorbed, often as tacit knowledge, via personal and extended
interaction at single site. Just consider the trivial exercise of teaching a constrained-optimization problem of the inter-temporal sort that may take up half an hour of an intermediate microeconomics class if resolved, via the ubiquitous bullet-point presentation, through the use of a Lagrangian. To fully comprehend the nuances of the constrained optimization problem (including the notorious difficulties that beset the problem), the student needs to be somehow made half-aware of a nest of complex, overlapping and unfolding traditions that include the energy-physics of Marshall’s day, the French mathematics of Euler’s day, the syllogistic reasoning of Whately’s day, the risk-uncertainty ponderings of Knight’s day, the husbanding of resources across real time of Smith’s day, and so on and so on. The list is endless, and, even though articulating our thoughts in the form of lecture notes almost certainly assists the student in coming to grips with the problem, such written documents, and associated wooden presentations, will always be inadequate abridgments of the actual body of knowledge that is being brought to bear when working through this problem. The written document, useful though it is, simply cannot stand in for extended interaction in which a teacher, in response to a more inquiring student’s question, states that the problem of real time has been considered elsewhere or, to enliven the proceedings on a tired class, provides an anecdote that Marshall was first trained in mathematical physics and that the mathematical methods on the page look somewhat borrowed, or, conveys an intuitive explanation of a mathematical tool in an absent-minded fashion that a student previously learnt by rote. These asides, anecdotes and off-hand hints sit in the student’s mind to create a richer, usually unacknowledged comprehension of the tacit sort. The importance of what is being conveyed is often made by no more than a raised eyebrow.

This, I believe, is what Newman wished to convey. He may have been less than precise in his explication of the actual mechanisms that should be used to convey the complex traditions that are used in economics and elsewhere to enlarge a student’s mind (in the Newman sense). The hints and illustrations he employed may have also been sufficiently opaque to allow me only tentatively to believe that his vision can be better gleaned by reading the works of Polanyi et al. on tacit knowledge and the master-apprentice relationship. The reader of Newman is, however,

18 Or to use Neman’s vocabulary: the teacher conveys the “multitude of small truths which fall upon the mind like dust” ([1873] 1905, p.148-9).
at all times aware of what Newman believed to be bad teaching; namely, articulating blunt facts or adumbrating principles on an overhead that are disconnected from a tradition and which, in any event, are already contained in the text, and hence already available to the student:

Here then is real teaching…it at least recognizes that knowledge is something more than a sort of passive reception of scraps and details; it is something, and it does a something, which never will issue from the most strenuous efforts of a set of teachers, with no mutual sympathies and no intercommunication, of a set of examiners with no opinions which they dare profess, and with no common principles, who are teaching or questioning a set of youths who do not know them, and do not know each other, on a large number of subjects, different in kind, and connected by no wide philosophy, three times a week, or three times a year, or once in three years, in chill lecture rooms or on a pompous anniversary.

([1873] 1905, p.148)

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