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Defending university integrity

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Abstract

Universities are seldom lauded publicly for maintaining good processes and practices; instead, media stories commonly focus on shortcomings. Furthermore, universities, even when doing everything right, sometimes are unfairly targeted for criticism in circumstances in which making a public defence is difficult. A prominent case at the University of Wollongong shows how defending a university's integrity can be hampered by confidentiality requirements, lack of public understanding of thesis examination processes and of disciplinary expectations, and university procedures not designed for extraordinary attacks. The implication is that there can be value in fostering greater awareness of the ways that universities and disciplinary fields operate, and reconsidering procedures with an eye towards possible attacks, both external and internal.

Keywords: University integrity, PhD theses, Confidentiality, Public understanding, Procedures, University of Wollongong

Introduction

This 'thesis' is an attack on the integrity of all my Paediatric colleagues who have trained in immunology, infectious diseases and epidemiology. We see the benefits, and the low risk, of immunization every day of our working lives. This 'thesis' is a travesty of academic endeavour and the UOW should be ashamed to be associated with it. — Philip Moore, comment on Change.org petition (Fein 2016).

As both an academic and a pro-vaxxer, this disgusts me. This undermines real research, and lowers the overall standard of the PhD. It is potentially dangerous to lend legitimacy to the anti-vax movement. — Sarah Stenson, comment on Change.org petition (Fein 2016).

Her PhD dissertation is not fit to be used as toilet paper. This university has lost a lot of credibility by allowing her to receive a Ph.D for what is truly a piece of anti-vaccine propaganda with no actual research of a credible nature to support her claims. Was her graduation cap covered in tin foil when they gave her that dissertation? — Chris Hickie, SAVN Facebook page, 27 July 2016.

UOW is forever tarnished by this shambolic PhD. This piece of rubbish 'research' would NEVER have been allowed to occur at any of the Group of 8 universities! — Vincent Ferrano, SAVN Facebook page, 29 July 2016.

For university administrators, maintaining the integrity of teaching, research and administrative processes can sometimes seem like a thankless task. Considerable efforts are put into developing robust systems for ensuring good practice, to protect staff and to prevent various forms of corruption. In parallel, conscientious staff do everything they can to maintain high standards. However, all it takes for a university's reputation to suffer is for a lapse — even a minor or temporary one — to be exposed by the media. Stories about plagiarism, soft marking, harassment and corruption are newsworthy precisely because they clash with the high ideals about learning and knowledge creation associated with universities.¹ For example, in Australia there have been numerous media stories about student plagiarism, but rarely if ever a story about how universities foster proper acknowledgement practice. An Australian vice-chancellor was exposed for plagiarism and resigned (Madden 2002); this was newsworthy in a way that ordinary (non-plagiarising) scholarship seldom is.

In contrast to media stories on scandals in the university sector, there is little coverage of good practices, which can encompass much of the routine operation of universities. Most university employees take pride in carrying out their jobs in an ethical, professional manner. Indeed, it can be argued that the most serious challenges to integrity are not due to individual failures but to structural factors, for example the squeeze on university funding, the priority many students put on acquiring degrees compared to learning, and the funding of research by groups with vested interests. These are matters for discussion elsewhere. In any case, there is little publicity about structurally generated challenges to integrity compared to failures by individuals, a discrepancy that can trigger a culture of avoiding visible shortcomings at the expense of taking risks to foster excellence.

An even more invidious situation for a university is when it maintains proper processes and high standards and yet comes under public attack. This can occur in a variety of ways, including

- false allegations, for example by a disgruntled staff member (e.g., Martin 2002, 2005);
- guilt by association, for example when an academic is involved in crimes in a private capacity (e.g., Flaherty 2015);
- criminal or disreputable activities blamed on universities, for example sexual harassment or alcohol-related deaths in fraternities (e.g., Lambert 2016; Tribbensee 2004).

The challenge for administrators and media managers is how to defend the university's reputation when, according to the best inside knowledge, its processes are well designed and have been followed to a high level. This challenge seems to have seldom been addressed in the literature, for example not being mentioned in the comprehensive *Handbook of Academic Integrity* (Bretag 2016).

To illustrate some of the issues involved, I describe here a particular case involving the University of Wollongong, in which the university came under a ferocious public attack for granting a PhD. This case, because of its scale and the diversity of methods involved, is a particularly rich example and thus highlights several important issues. Even though most universities will never experience such an episode, the case can be useful in pointing to challenges that might be faced on a smaller scale.

I write about this case as a key figure in the episode, and thus draw on elements of the methodology of participant observation (Jorgensen 1989; Spradley 1980). The public attack on the University of Wollongong was an aspect of an attack on one of my PhD students and on me personally. My involvement has both disadvantages and advantages from the point of view of undertaking an analysis and writing an account. The primary disadvantage is the possibility of bias due to defending reputations of people involved, especially my own. I have tried to mitigate this problem by seeking comments on drafts from various individuals. The primary advantage of having a personal involvement in the case is access to information, including being able to talk to key figures.

One of the difficulties for university administrations defending their processes is that many decision-making deliberations, for example concerning admissions, appointments and handling of complaints, are considered confidential. Although I have access to quite a lot of information about how University of Wollongong procedures operated in this case, I am not at liberty to reveal everything relevant, for example information obtained from informal discussions with university officials. Therefore, ironically, this account is partially constrained by one of the factors I am trying to illustrate.

In writing this account, I do not intend to suggest that the University of Wollongong is necessarily a model of educational integrity, in this case or in other regards. Like all universities, it has strengths and weaknesses in its procedures and practices. As noted earlier, universities are more likely to be condemned for their breaches than congratulated for their good practice, and the University of Wollongong is no exception. In February 2001, the Vice-Chancellor dismissed a tenured associate professor, Ted Steele, in what became one of the biggest academic freedom cases in Australia. In that case, I wrote articles criticising the Vice-Chancellor's action but also actions by Steele and the union (Martin 2002, 2005).

In the next section, I describe the case study. After that, I describe some lessons to be drawn that are applicable to other universities and the higher education sector. The issues that arise from the case include how to deal with complaints intended to damage the reputation of the university (complaints that might be considered vexatious), the lack of public understanding of university processes, the role of differing disciplinary expectations for scholarly work that is publicly contested, and the responsibility of supervisors to intervene in public debates involving their students and their students' work.

The Wilyman case

The University of Wollongong's main campus is located in the city of Wollongong, south of Sydney; it also has a number of other campuses, the largest located in Dubai. The university has over 30,000 students, including more than 1700 research students. Over 250 students graduated with PhDs in 2015.

This story involves a particular PhD student, Judy Wilyman, who started in 2007 under my supervision. She switched enrolment to Murdoch University for the years 2008–2010 and then re-enrolled at Wollongong, graduating in 2015.

Judy's thesis topic was 'A critical analysis of the Australian government's rationale for its vaccination policy' (Wilyman 2015). In the context of my research and supervision, this topic was nothing special. I have long worked in the field called science and technology studies (STS), which involves analysis of science, technology and medicine using

tools from the humanities and social sciences, including history, sociology, politics and economics (Hackett et al. 2008; Jasanoff et al. 1995). It is quite usual for STS researchers, including students, to undertake critical analyses of scientific knowledge, technological development and policy positions. By the time Judy graduated, I had been principal supervisor for over 20 students, most of them in STS, who had received their PhDs.

Several of my students studied controversial issues, for example IUDs, nuclear power, genetic engineering and antidepressants, and their work might be seen as being critical of the positions taken by dominant groups. In this context, Judy's thesis was unexceptional. It might have passed largely unnoticed except for an external development.

In 2009, a citizens' group calling itself Stop the Australian Vaccination Network (SAVN) was set up.² Based around a Facebook page, its goal was to discredit and destroy the Australian Vaccination Network (AVN), a citizens' group critical of vaccination.³ SAVN's main methods have been denigration, harassment and censorship. For example, SAVNers have subjected Meryl Dorey, the founder and long the key figure in the AVN, to years of verbal abuse (Martin 2011, 2015a). SAVNers have made dozens of complaints to government agencies about the AVN, tying the AVN up with onerous requirements to respond (Martin 2011, 2015a). SAVNers or others have sent pornography to Dorey and subjected her to threats (Martin 2011, 2015a). When Dorey was reported in the media, SAVNers complained to media proprietors (Martin 2012). When Dorey was scheduled to give a talk, SAVNers wrote to the organisers and sponsors in an attempt to have the talk cancelled (Martin 2015b). Aside from sending pornography and making threats, the methods used by SAVNers are legal, yet they have both the purpose and effect of silencing dissent about vaccination.⁴

In addition to the AVN, SAVNers targeted anyone else openly critical of vaccination orthodoxy. Judy, as well as undertaking her PhD research, also commented in various public forums. Because she was a critic of the Australian government's vaccination policy, she soon came under attack by SAVN, for example with derogatory comments on the SAVN Facebook page and various SAVNer blogs (Martin 2016c).

Because Judy was enrolled at the university, SAVN used university processes as part of their efforts to discredit her and disrupt her candidature. Years before she graduated, there were a number of complaints to the university. Most of these were dismissed promptly. However, one of them, about her masters project completed eight years earlier, was pursued through internal processes, requiring nine months before she was cleared.

It is routine for research students to obtain small grants, for example for fieldwork and conferences. In 2013, Judy obtained \$3000 of internal funding to attend a conference and present a paper. Alerted to her attendance at the conference, a freedom-of-information request was made for all university documents about the funding and the conference, requiring considerable time and effort to address. After documents were released to the applicant, an article appeared in *The Australian* (Morton 2014) criticising Judy, me as supervisor, and one of my other PhD students. The documents released under FOI were only mentioned incidentally; they provided the ostensible angle for the story, which obviously was driven by an agenda of denigrating Judy's work and anyone associated with it (Martin 2014).

These experiences made me and relevant university officials acutely aware of the importance of following procedures in a rigorous fashion and ensuring that Judy's thesis was of the requisite standard, because we anticipated that after graduation her thesis and university processes would come under intense scrutiny. It might be argued that because of this, higher expectations should have been placed on the quality of Judy's thesis than on other theses, but this would have been unfair, placing an extra burden on a student simply because others opposed her research topic and findings. Indeed, the attacks themselves were a considerable extra burden.

As Judy's supervisor, as a matter of course I read various drafts of her thesis chapters and offered extensive comments. Judy's co-supervisor, Andrew Whelan, a sociologist with experience with the sociology of health, also commented. We also took additional steps to ensure quality. Prior to submission, I sent Judy's thesis draft to three vaccination experts,⁵ each of whom sent comments, and Judy made revisions accordingly. As well, her thesis draft was read by a senior university figure with extensive research experience.

At the University of Wollongong, PhD theses are sent to two external examiners, who are expected to be authorities in relevant fields. The supervisor, the candidate and the relevant head of postgraduate studies sign off on four or five potential examiners. Then the supervisor and head of postgraduate studies select two of these examiners; the student is not supposed to know who has been selected. Having the student sign off on possible examiners is protection against supervisors or departments undermining a student's prospects by choosing unsuitable people.

The university has many rules to prevent conflicts of interest. For example, examiners cannot have worked at the University of Wollongong in the previous five years or have collaborated with a supervisor in the previous five years. A supervisor cannot nominate the same examiner more than once per year, a rule designed to prevent regular use of a sympathetic examiner. Examiners must be from different countries. Compared to other Australian universities, the University of Wollongong's examiner selection rules are equally or more rigorous.

After examiners submit their reports, the head of postgraduate studies makes a recommendation, and the reports and recommendation are considered by the Thesis Examination Committee (TEC), made up of representatives from all faculties. Nearly always, the TEC follows the recommendations of the examiners and requires that all suggested changes be made.

If the examiners come up with significantly different recommendations, which is uncommon but not rare, the TEC sends the thesis to a third examiner. The TEC then considers all three reports. This is what happened with Judy's thesis. She made extensive revisions in response to the examiners' comments, and the third examiner was completely satisfied with the revised version of her thesis.

The examiners chosen were all from the social sciences, in sociology or STS. One was an associate professor and two were full professors. Between them they had extensive experience studying scientific controversies and the politics of health. I'm told that members of the TEC had no concerns about the calibre of the examiners.

In summary, from inside the university, those involved with Judy's thesis knew that the university's examination processes were rigorous and were adhered to with great care in her case. As well as the usual scrutiny by supervisors, Judy's thesis had been

read before submission by vaccination experts and a senior university figure. Highly experienced examiners were chosen and the TEC followed its standard protocols. Although there is never any ultimate guarantee of the quality of a thesis, the measures taken concerning Judy's thesis are strong indicators that it warranted the award of a PhD, being comparable in standard to the hundreds of other PhDs awarded by the university every year.

Preparing for attack

Judy received her PhD in December 2015 by a motion of University Council, a process by which research students can graduate separately from formal ceremonies. I expected that when Judy's graduation was announced publicly, an attack would commence, so I prepared a document titled 'Judy Wilyman, PhD: how to understand attacks on a research student' (Martin 2016a). I summarised the four critical points in her thesis about Australian vaccination policy thus:

First, deaths from infectious diseases had dramatically declined in Australia before the mass introduction of most vaccines, suggesting that vaccination is not the only factor in controlling these diseases. Second, Australian vaccination policies were adopted from a one-size-fits-all set of international recommendations, without consideration of the special ecological conditions in Australia, for example the levels of sanitation and nutrition, and the incidence and severity of diseases. Third, nearly all research on vaccination is carried out or sponsored by pharmaceutical companies with a vested interest in selling vaccines; the conflicts of interest involved in vaccine research can lead to bias in the research design and conclusions drawn. Fourth, there are important areas of research relevant to vaccination policy that have not been pursued, but should have been; a plausible reason for this "undone science" is that the findings might turn out to be unwelcome to vaccination promoters.

I also described SAVN's campaign, the role of expertise, the university's supervision and examination processes, and then had a short section titled 'What to look for in criticism'.

When people criticise a research student's work, it is worth checking for tell-tale signs indicating when these are not genuine concerns about quality and probity but instead part of a campaign to denigrate viewpoints they oppose.

1. They attack the person, not just their work.
2. They concentrate on alleged flaws in the work, focusing on small details and ignoring the central points.
3. They make no comparisons with other students or theses or with standard practice, but rather make criticisms in isolation or according to their own assumed standards.
4. They assume that findings contrary to what they believe is correct must be wrong or dangerous or both.

The attacks on Judy's research exhibit every one of these signs. Her opponents attack her as a person, repeatedly express outrage over certain statements she has made while

ignoring the central themes in her work, make no reference to academic freedom or standard practice in university procedures, and simply assume that she must be wrong.

This listing of tell-tale signs turned out to be prescient in characterising the storm that followed the announcement on 11 January 2016 of Judy's graduation and posting of her thesis on the university's website (Wilyman 2015).

The attack

Within 24 h, a journalist for the national newspaper *The Australian*, Kylar Loussikian, had collected information aimed at discrediting Judy's thesis. Despite being informed about my document 'Judy Wilyman, PhD', he ignored most of the information in it, including the arguments in Judy's thesis summarised above, and wrote an attack piece, published on the front page of *The Australian* on 13 January 2016 (Loussikian 2016a). The article misrepresented the contents of her thesis (including claiming it purveyed a conspiracy theory), criticised Judy, me and one of my other PhD students, and condemned the University of Wollongong for having passed Judy's thesis. Loussikian's article displayed all four tell-tale signs of being part of a campaign of denigration (Martin 2016b).

Loussikian's article provided the impetus, or the pretext, for a remarkable campaign against the university. It included commentary on SAVN's Facebook page, numerous attacking blogs, and a Twitter storm that took over the university's own Twitter hashtag #ThisisUOW.

A Twitter account, @UoWooWoo, was set up using a modified version of the University of Wollongong's logo. Filled with derogatory comments, @UoWooWoo presented itself as 'University of Woo Woo' with this description: 'Australia's uni of "Unchallengeable Knowledge". PhDs in pseudoscience, conspiracy theory, paranoia or any bullshit you want. Propa refrancing n/a. Illawarra'.

There was commentary on the university's Facebook page, an online petition eventually signed by over 2000 people (Fein 2016), creation of a new and one-sided Wikipedia entry titled 'Judith Wilyman PhD controversy' and insertion of some of this text in the university's Wikipedia page, and several freedom-of-information requests seeking the names of the examiners of Judy's thesis and other information. As well, there was pressure behind the scenes from academics for the university to set up an inquiry into the granting of her PhD and indeed to revoke her degree.

Unlike many such media storms, which die out after a few days, the outcry against Judy's thesis continued for months, though with gradually declining intensity. Loussikian wrote a series of articles, each one triggering a new outpouring of denunciation.

Responding to the attack

From my point of view, the campaign was based on bias and ignorance, specifically the bias of SAVNers and other attackers, and the ignorance of the many who read Loussikian's articles and treated them as authoritative. Disappointingly, many academics as well as members of the public do not consider the possibility that news stories can be tools in a partisan campaign, and do not seek independent information. Of the dozens of messages I received, including both support and condemnation, only one asked for more information.

The University of Wollongong took a strong stand in support of academic freedom. This media statement was prepared in advance and supplied to Loussikian and others:

UOW supports academic freedom

As a leading research-intensive university, the University of Wollongong values intellectual openness, freedom of opinion, diversity of ideas, equity, and mutual respect. UOW ensures research is undertaken according to strict ethical and quality standards and supports researchers' academic freedom of thought and expression. UOW does not restrict the subjects into which research may be undertaken just because they involve public controversy or because individuals or groups oppose the topic or the findings. UOW does not endorse the individual views of its academics or students. It recognises the importance of open and respectful public policy debate to the preservation of a free and democratic society.

There was support for academic freedom from the Vice-Chancellor, members of the senior executive and members of the University Council, the governing body. There were no internal whistleblowers claiming that a substandard thesis had been pushed through, as alleged by outside critics.

The attackers assumed Judy's thesis was no good despite not having read or understood it. They seemed to think that referring to a few allegedly wrong statements discredited the whole thesis.⁶ A few of them traded on their status as scientists to claim that a social science thesis about vaccination policy had no credibility because neither the student nor the supervisors were scientists, thereby showing their unawareness of a long tradition in the STS field for undertaking critiques of science, technology and medicine, and ignoring that various groups — such as public health economists — have input into vaccination policy, not just scientists. None of the critics of the thesis had published substantive articles on vaccination *policy*. None compared the thesis to other theses in the field. None published a critique in a scholarly forum.

Some of the denunciations of the thesis involved extraordinary claims without any attempt to back them up. For example, SAVNer Peter Bowditch (2016), in an article in *Australasian Science*, said 'You can't just make up stuff and call it research'.

Difficulties in defending

Those inside the university who had been involved with Judy's thesis were aware of how processes to ensure quality had been rigorously followed. However, this message was difficult to get out in the face of furious denunciations. Key factors in this difficulty were the university's confidentiality procedures, the public's lack of understanding of normal university processes and of disciplinary expectations, and university procedures not being designed to cope with an exceptional attack.

For good reasons, universities maintain confidentiality on a range of matters. For example, when there are allegations or confirmed cases of student plagiarism, the names of students are not released to the public: this could harm their reputation over something that is either unproven, not significant or considered part of a learning process.

However, when a university comes under attack over an alleged lack of integrity, confidentiality provisions can hamper defence. In the case of Judy's thesis, the names of the examiners and the deliberations of the Thesis Examination Committee were confidential. The examiners were highly qualified; releasing their names would have been a counter to claims that the examination process was rigged. However, releasing their names would have opened them to public attacks on their reputations, and would have set a precedent that would discourage scholars from agreeing in future to be examiners. Similarly, members of the TEC could not speak in public to defend the integrity of the committee's processes.

Few members of the public, even those with undergraduate degrees, have much knowledge about processes for granting research degrees. Few know that supervisors in Australia approve a thesis for submission but are not subsequently involved in the decision-making process, or that examiners are chosen for their independence and knowledge in the field. Examination of theses in Australia is much like the peer review process for articles and scholarly books, typically involving making revisions to the satisfaction of the examiners or designated university officials. However, the operation of peer review systems is not widely understood, certainly not as applied to theses.

Granting a PhD does not certify that the research findings are correct, only that the candidate demonstrates a capacity to do research at the requisite standard, typically a level near or equal to publication in refereed journals. However, few people realise that many scientific research findings are wrong (Ioannidis 2005) and that research of high quality is not guaranteed to be correct.

Few members of the public understand the field of STS, in which it is routine to undertake critiques of scientific knowledge, technological developments and medical policies. People may appreciate that commenting on transport policy does not require an engineering degree and engaging in the debate over nuclear power does not require a degree in nuclear physics, but be susceptible to claims that studying vaccination policy requires specialist knowledge in immunology or epidemiology.

The criticisms of Judy's thesis seemed to operate like this. A few medical experts and journalists misrepresented the claims in the thesis,⁷ assumed that specialist credentials were required to criticise vaccination, and concluded that the thesis was substandard and wrong. They then inferred that Judy's supervision and the university's processes were inadequate. Lack of public understanding of STS research, of peer review and of university processes apparently facilitated the attack on the university.

In referring to lack of public understanding, attention should be paid to insights from the field called 'public understanding of science'. In particular, it should not be assumed that greater public understanding necessarily leads to greater public support (Simis et al. 2016; Suldovsky 2016).

It might also be said that few members of the public have personal knowledge about how the mass media can be used to create a misleading, one-sided impression, following the formal rules of journalistic practice in a way that displays systematic bias. Although Loussikian wrote numerous stories in *The Australian* critical of Judy, me and the university, most other media outlets ignored the story.

One of SAVN's techniques is, after any media story seen to be sympathetic to vaccine critics or even taking them seriously, to bombard the proprietors with complaints. So perhaps it is not surprising that there has never been a mass media story about SAVN

and its methods. The university, targeted by SAVNers and others following the same agenda, was hampered by a media environment in part shaped by SAVN campaigning.

The university was vulnerable to FOI procedures used for the purposes of attack. When one FOI request was denied, Loussikian (2016b) ran a story giving a misleadingly selective account of the reasons for the denial. After another FOI request, portions of Judy's examiners' reports were released to an applicant. Loussikian (2016c) ran a hostile story based on a one-sided interpretation of the reports.

The University of Wollongong quite properly does not take a stand for or against the research findings of its students, staff or graduates. It can only defend their academic freedom to undertake research and make public comment. Loussikian sent many questions to the university about Judy's thesis, my supervision, examination processes and related matters, usually expecting a response within a few hours. The university could not address the content of Judy's thesis. After Loussikian's articles appeared, it was not the university's role to defend Judy or the thesis. With tens of thousands of students and thousands of staff, the University of Wollongong has no capacity to engage in public debates about the merits of research findings. Doing this in one case would open the floodgates for others to demand intervention — and this would include defending vaccination supporters as well as critics, hardly a tenable position. However, having a policy of non-intervention means that in exceptional cases, when the university is under attack, options are limited.

The University of Wollongong was, in a sense, caught in the middle of a fierce dispute between one of its students, who had obtained a significant media profile, and her numerous and energetic detractors who used social and mass media as tools of denigration. This meant that demonstrating the integrity of the university's processes was difficult to separate from the dispute, about which the university took no position.

Lessons

Few universities will ever face an attack like the University of Wollongong experienced over Judy Wilyman's PhD. However, it is possible to draw some lessons from the saga that can be applied more generally. Indeed, the ferocious nature of the assault on the university's reputation highlights some issues that might otherwise not be so obvious.

One important lesson is that ensuring integrity is vital, especially in areas where the university's reputation is vulnerable. At the University of Wollongong, this meant taking extra steps to ensure the quality of Judy's PhD thesis. At other universities, it might mean taking additional measures to address undergraduate plagiarism, purchasing of essays, conflicts of interest, misuse of research monies, sexual harassment or bullying. As well ensuring integrity, it is also vital to develop and deploy methods for demonstrating quality. A university might be doing everything right but still be vulnerable to hostile claims without a way to show that the claims are wrong or misleading.

Universities need ways to prevent misuse of their procedures, for example through vexatious complaints. Procedures are usually written with the most frequently encountered matters in mind. The possibility that procedures might be used to serve agendas extraneous to the university's mission or directly designed to damage the university's reputation should be taken into account.

Complaint procedures are usually set up on the assumption that each complaint is a discrete event that is evaluated independently on its own merits. This assumption is

valid in many cases but not when there is a coordinated set of complaints as part of a campaign. Sometimes individuals are designated as vexatious complainants, but this is inadequate to address campaigns in which members of a group or network join in making complaints. The implication is that in such circumstances, complaints need to be judged in the context of other complaints and other activities, and dealt with accordingly. This raises difficult issues potentially pitting fair treatment of individual complaints against protection against coordinated attacks. This is not entirely new territory for universities. For example, many plagiarism notifications are about individual cases, but sometimes entire rings of essays for sale are involved that cannot be easily addressed through sanctions against individual purchasers.

Officially, the central business of universities is the creation and communication of knowledge, which can be called public knowledge (Ziman 1968). To these ends, research findings are published in journals and students are taught up-to-date understandings in relevant fields. Although there are many deviations from these ideals, nevertheless most members of the public understand what is involved in teaching — having experienced it as students in school — and some have an appreciation of research. What is less common is understanding of how universities manage their own affairs, in practice and in terms of policies. This lack of understanding means that universities may have difficulty demonstrating their integrity, individually and collectively. For example, there appears not to be a single published study of Australian university thesis examination processes that gives figures for the typical percentages of students whose theses are passed with no changes, who have to make minor and major revisions to their theses, who are required to have their theses re-examined, and whose theses are failed. Even PhD students and new supervisors may be unaware of such figures, and outsiders may not understand the process of peer review of journal articles, books and theses. In such circumstances, criticisms of a university over a single alleged shortcoming cannot be put in context.

Public understanding of academic fields is limited, as is understanding of what is involved in doing research. Few members of the public appreciate that publication in a scholarly journal does not guarantee the correctness of the findings. Nor do many appreciate the ferocity of disputes within science, and that dissenting scientists may be censored or even dismissed (Deyo et al. 1997; Moran 1998). The social sciences and humanities have been subject to a sustained attack, especially since the 1990s, by some scientists and others who do not want their own fields to come under critical scrutiny by scholars (e.g. Gross and Levitt 1994). In the context of ignorance, stereotypes and denigration, it can be difficult to defend scholarship in the social sciences. This suggests the value in encouraging more scholars to explain what they do and how they do it in ways that resonate with public audiences.

At least as important as public understanding is understanding by academics in other fields. When university integrity is unfairly criticised, then ideally scholars from a range of disciplines should feel able to defend university processes rather than turning on their colleagues or, more commonly, thinking it is none of their business. Academics have differing ideas about their fields of study, and may legitimately challenge each other's work, but should have a common interest in integrity, including defence of academic freedom. The implication here is to encourage greater cross-disciplinary tolerance and mutual support.

Explaining policies and procedures, scholarly practices and expectations, and the approaches of different disciplines seems to be no one's responsibility. Academics focus on their own research and teaching, naturally enough, and few see it as their role to explain their work for general audiences or colleagues in other disciplines. Professional (non-academic) staff likewise have their own priorities, with few or none assigned to long-term promotion of public and cross-disciplinary understanding, especially when the benefits are mainly for the sector as a whole rather than specific universities. This narrow focus contributes to the vulnerability of individual universities, and the higher education sector as a whole, to unfair attacks. It would not be difficult, though, to encourage some members of the academic community — academics, professional staff, and those in retirement — to draw on their experience and explain in simple terms what academic life is all about. This would need to be combined with efforts to promote greater public understanding, something that could be fostered by university administrations, unions and government departments.

Supervisors have a formal responsibility for helping their research students develop the understandings and skills required for undertaking research. A thesis is the visible manifestation of research performance, and students often publish articles as well. The supervisor's role is to support the student in developing capacities, for example for collecting information, analysing data, formulating hypotheses and writing up findings, depending on the discipline. In practice, many supervisors often offer personal support to help students to develop related skills such as in teaching, speaking and networking, and to deal with the psychological, financial and career challenges they face. All this is well known to supervisors, though actions do not always measure up to expectations.

Whether supervisors have a responsibility to students extending beyond the academic arena to public arenas is a vexed question. Supervisors may choose to take up a student's cause, or may decline to be involved after completion of a degree. When a student comes under attack for their research work, the question of responsibility becomes acute. It might be thought that students should be able to defend themselves, but usually supervisors have far more experience and stature for defending and thus are in a better position to intervene. However, there are bound to be limits to supervisor involvement in struggles involving students. (Supervisors who co-author publications with students have an additional role as collaborator.)

A complication in the intervener role is that supervisors are bound by expectations of confidentiality. The supervisor-student relationship has parallels with relationships between doctors and patients and between lawyers and clients.

When universities come under attack, there is an understandable tendency to minimise the damage to reputation. After the attack recedes, there is another understandable tendency: to move on rather than dwelling on what went wrong, either in the university's own performance or in its vulnerability to unfair criticisms. Yet there is much to be learned from failures (Syed 2015). Universities, as institutions of higher learning, have much to gain by studying episodes in which their integrity is questioned and using insights to promote improved procedures, practices and understanding.

Endnotes

¹There is a large literature dealing with the operation of the mass and social media, including the role of news values in shaping judgements by journalists and editors

about newsworthiness. For anyone familiar with this literature, or with experience working in the media, the media's focus on transgressions and neglect of routine good practice will be no surprise.

²As of 2016, SAVN listed its name as Stop the Australian (Anti)Vaccination Network.

³The AVN was forced to change its name, which it did, to Australian Vaccination-skeptics Network.

⁴It might be said that SAVNers were exercising their own free speech, though with the aim of silencing the speech of their targets. For a discussion of SAVNers' attempts to justify their attempts at censorship, see Martin (2015b).

⁵One is a molecular biologist and author of dozens of scientific papers. Another is an epidemiologist, formerly from a government unit dealing with infectious diseases, and author of numerous scientific papers. The third is a university medical researcher, author of dozens of scientific papers on vaccination. They do not want their names revealed because of the possibility of attacks on their reputations.

⁶For example, Loussikian (2016a), in his initial article, wrote: 'Senior immunology academic John Dwyer, spokesman for the Friends of Science in Medicine, said he would write to the university and express his concerns. ... "The candidate (Ms Wilyman) has endorsed a conspiracy theory where all sorts of organisations with claimed vested interests are putting pressure on WHO to hoodwink the world into believing that vaccines provide more benefits than they cause harm," Professor Dwyer said. "Many well-established concepts in science are being challenged in this theseses [sic] with no data to support the conclusions provides [sic] ..."' For a critique of Loussikian's article, including Dwyer's allegations, see Martin (2016b).

⁷As noted above, journalist Kylar Loussikian, citing immunologist John Dwyer, did not report on the key points in the thesis, instead falsely claiming it presented a conspiracy theory. Loussikian's misrepresentation became the template for much of the subsequent hostile commentary.

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References

- Bowditch P (2016) What is a PhD worth? *Australas Sci* 37(2):47
- Bretag T (ed) (2016) *Handbook of academic integrity*. Springer, Singapore
- Deyo RA, Psaty BM, Simon G, Wagner EH, Omann GS (1997) The messenger under attack: intimidation of researchers by special-interest groups. *N Engl J Med* 366(16 April):1176–1180
- Fein A (2016) Stop the University of Wollongong's spread of disease and death via anti-vaccination PhD. *Change.org* petition, <https://www.change.org/p/simon-birmingham-stop-the-university-of-wollongong-s-spread-of-disease-and-death-via-anti-vaccination-phd>. Accessed 4 August 2016
- Flaherty C (2015) Extracurricular criminal. *Inside Higher Ed*, 10 August, <https://www.insidehighered.com/news/2015/08/10/lawmaker-calls-central-connecticut-state-u-fire-professor-criminal-history>. Accessed 26 November 2016
- Gross PR, Levitt N (1994) *Higher superstition: the academic left and its quarrels with science*. Johns Hopkins University Press, Baltimore, MD
- Hackett EJ, Amsterdamska O, Lynch M, Wajcman J (eds) (2008) *The handbook of science and technology studies*. MIT Press, Cambridge, MA
- Ioannidis JPA (2005) Why most published research findings are false. *PLoS Med* 2(8):e124
- Jasanoff S, Markle GE, Petersen JC, Pinch T (eds) (1995) *Handbook of science and technology studies*. Sage, Thousand Oaks, CA
- Jorgensen DL (1989) *Participant observation: a methodology for human studies*. Sage, Newbury Park, CA

- Lambert O (2016) Sydney University's colleges have a toxic culture that has forced some students out., News.com.au, 8 July, <http://www.news.com.au/lifestyle/real-life/news-life/sydney-universitys-colleges-have-a-toxic-culture-that-has-forced-some-students-out/news-story/173fdd28b2a6c57261ed1843d79a2025>. Accessed 10 November 2016
- Loussikian K (2016a) Uni accepts thesis on vaccine 'conspiracy'. *The Australian*, 13 January, pp. 1, 4
- Loussikian K (2016b) Examiners of anti-vax thesis secret 'for safety'. *The Australian*, 2 March, p. 30
- Loussikian K (2016c) Third marker gave OK to anti-vac thesis. *The Australian*, 11 May, p. 30
- Madden J (2002) Closing the book on a career. *The Australian*. 18 July, pp 1-4
- Martin B (2002) Dilemmas of defending dissent: the dismissal of Ted Steele from the university of Wollongong. *Aust Univ Rev* 45(2):7–17
- Martin B (2005) Boomerangs of academic freedom. *Workplace: J Acad Labor* 12:64–83
- Martin B (2011) Debating vaccination: understanding the attack on the Australian vaccination network. *Living Wisdom* 8(February):14–40
- Martin B (2012) Online onslaught: Internet-based methods for attacking and defending citizens' organisations. *First Monday: Peer-Reviewed Journal on the Internet* 17 (12). <http://firstmonday.org/ojs/index.php/fm/article/view/4032/3379>. Accessed 7 Dec 2016
- Martin B (2014) Biased reporting: a vaccination case study., <http://www.bmartin.cc/pubs/14Morton.html>. Accessed 4 August 2016
- Martin B (2015a) A vaccination struggle. In: Martin B. *Nonviolence unbound*. Irene Publishing, Sparsnäs, Sweden, pp. 259–334
- Martin B (2015b) Censorship and free speech in scientific controversies. *Sci Public Policy* 42(3):377–386
- Martin B (2016a) Judy Wilyman, PhD: how to understand attacks on a research student. <http://www.bmartin.cc/pubs/16jw.html>. Accessed 4 Aug 2016
- Martin B (2016b) News with a negative frame: a vaccination case study. <http://www.bmartin.cc/pubs/16Loussikian.html>. Accessed 4 Aug 2016
- Martin B (2016c) Asedio grupal a una estudiante de doctorado: lecciones y responsabilidades. In: Peña F, Fernández SK (eds) *Mobbing en la academia mexicana*. Ediciones Eón, Mexico City, pp. 161–175 [Mobbing of a PhD student: lessons and responsibilities. <http://www.bmartin.cc/pubs/16mobbing.html>. Accessed 5 Aug 2016]
- Moran G (1998) *Silencing scientists and scholars in other fields: power, paradigm controls, peer review, and scholarly communication*. Ablex, Greenwich, CT
- Morton R (2014) University paid for anti-vaccine student to attend conference. *The Australian*, 28 January
- Simis MJ, Madden H, Cacciatore MA, Yeo SK (2016) The lure of rationality: why does the deficit model persist in science communication? *Public Underst Sci* 25(4):400–414
- Spradley JP (1980) *Participant observation*. Holt, Rinehart and Winston, New York
- Suldovsky B (2016) In science communication, why does the idea of the public deficit always return? Exploring key influences. *Public Underst Sci* 25(4):415–426.
- Syed M (2015) *Black box thinking: the surprising secret of success*. John Murray, London
- Tribbensee N (2004) Recent tort law decisions and their implications for student risk management. Paper presented at the 25th Annual National Conference on Law and Higher Education, Stetson University Center for Excellence in Higher Education Law and Policy, <http://www.stetson.edu/law/conferences/highered/archive/2004/RecentTortLaw.pdf>. Accessed 26 Nov 2016
- Wilyman J (2015) A critical analysis of the Australian government's rationale for its vaccination policy. PhD thesis, University of Wollongong. <http://ro.uow.edu.au/theses/4541/>. Accessed 27 Nov 2016
- Ziman J (1968) *Public knowledge: an essay concerning the social dimension of science*. Cambridge University Press, Cambridge

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