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Research article

Distinguishing online academic bullying: identifying new forms of harassment in a dissenting Emeritus Professor's case



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ABSTRACT

The shift of academic discourse to an online space without guardians gives motivated academic cyberbullies an opportunity to harass susceptible recipients. Cyberbullying by higher education employees is a neglected phenomenon; despite the dangers it poses to academic free speech as well as other negative outcomes. In the absence of an adequate definition for Online Academic Bullying (OAB) as a surfacing threat, its' targets cannot readily gauge its severity or confidently report that they are victims. Nor do their attackers have a reference point for understanding and, perhaps, correcting their own incivility.

To remedy this, we propose an analytical framework grounded in Routine Activity Theory (RAT) that can serve as an appropriate reporting instrument. The OABRAT framework is illustrated with an Emeritus Professor's case and the varied examples of cyber harassment that he experienced. This scientific influencer was relentlessly attacked on social media platforms by varied academics for expressing contrarian, but evidence-based, opinions. Spotlighting OAB's distinctive attacks should raise awareness amongst researchers and institutional policy makers. The reporting instrument may further assist with identifying and confronting this threat.

This article also flags ethical concerns related to dissident scholars' usage of online platforms for informal, public debates. Such scholars may face an asymmetrical challenge in confronting cyber harassment from hypercritical academics and cybermobs on poorly moderated platforms. Universities should therefor consider appropriate countermeasures to protect both the public and their employees against victimisation by academic cyberbullies.

1. Introduction

This article addresses a destructive phenomenon in higher education (HE) of whose risks many scholars may be unaware. Workplace and academic bullying are well-documented, as is cyberbullying and trolling within different ideological, political, religious and non-ideological settings. In contrast, there is less information describing how scholars experience cyber harassment and its untoward consequences (Cassidy et al., 2017). Our article makes a contribution by identifying the emergent threat of 'online academic bullying' (OAB) in HE: OAB is a drawn-out situation in which its recipient experiences critique online by employees in HE that is excessive, one-sided and located outside of typical scholarly debate and accepted standards for its field. We base this definition on extant conceptualizations of academic bullying that have focused on aggression and incivility among faculty members (Keashly and Neuman, 2010). Academic bullying among faculty is a form of

workplace bullying that is common, although not as extensively researched as other types of bullying (Mahmoudi, 2019). With the expansion of the use of social media, academics interact with others online, with legitimate informal debates or OAB ensuing. However, to our knowledge, research on this digital form of intellectual harassment by academic cyberbullies is non-existent.

The online space has particular characteristics, which include anonymity, being boundaryless in terms of time and audience, and supporting, indeed encouraging, coordinated action. This environment's characteristics may be attractive to academics who are motivated to squash dissident opinions. A susceptible OAB recipient who espouses a contrarian view is likely to utilise online mechanisms for sharing ideas that may be suppressed in conventional academic fora. However, this strategy is risky since academic free speech and critique can be subverted by opponents and even abused. For example, academic cyberbullies may readily justify cyber harassment as an acceptable response to

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unconventional ideas that may pose imagined harms to the public. Controversial scholars may not be protected by university policies and guardians online. Instead it may appear to them that the cyber harassment is tacitly endorsed by the inaction of their university's leadership.

This article's definition of OAB was inspired by an Emeritus Professor's experiences (2010–20) of an academic mobbing and cyber harassment from academic colleagues. He became heavily criticised for changing his views on what constitutes a healthy diet, and the reasons why. He published several journal articles and chapters in traditional academic fora, but few scholars addressed or challenged his contrarian position there. By contrast, many academics used online publications and social media to criticise him in defence of their dominant school of thought.

We propose that scholars forced to negotiate OAB are facing a new threat to academic free speech. OAB techniques can suppress both legitimate dissent and scholars' digital voices. Suppression can be understood as a normative category of impedance that is unfair, unjust and counter to the standards of academic behaviour (Delborne, 2016). Academic freedom is a special right of academics-a right to freedom from prescribed orthodoxy in their teaching, research, and lives as academics (Turk, 2014). This right seeks to avoid corruption from the vested interests of other parties, which ranges from scholarly peers and university board members to corporate donors. This right is foundational in supporting scholars to advance and expand knowledge, for example by accommodating diverse voices (Saloojee, 2013).

The academic freedom of dissenting scientists, who have earned the right to make a contribution, must be tolerated to speak, write and teach the truth as they see it (Dworkin, 1996). By contrast, our research flags how online platforms became misused by self-appointed intellectual gatekeepers who sought to prevent a leading scientist from sharing novel arguments that threaten to disrupt the academic status-quo. Readers are also alerted to how popular social media platforms and web portals can serve as gatekeepers when they hide non-conventional, but scientifically-reasoned, scholarly contributions. For example, Wikipedia's editors may perform systematically biased editing against a particular scientist's contribution, despite following their encyclopedia's rules (Martin, 2017).

As a novel threat, OAB is particularly threatening for scientific scholarship, since dissent is an essential component of the scientific method and its progress (Martin, 1999). In the field of academic science, innovation depends on the robust testing of the accepted conventional paradigms. New theories emerge when something is seen to have gone wrong with older ones (Kuhn, 1963). As every scientific model must be falsifiable and no model is ever "settled" (Popper, 2005), powerful authorities should encourage robust, agonistic debate. In particular, the academic free speech of dissenting scientific scholars should ideally be supported in challenging mature scientific models that fail to explain anomalies. By contrast, believers in an entrenched scientific orthodoxy can assume that there is no justification in questioning their scientific hypotheses. Dissident scholars who challenge the orthodoxy's "consensus" must be attacked and rigorously suppressed. There are many examples in the history of science of even the most creative members of its community rejecting and resisting unexpected novelties of fact and theory (Kuhn, 1963).

For scholars facing scientific suppression, its key markers include the following: being prevented from pursuing research ideas or having research silenced; having their credibility, position and practice attacked; and lacking sustained institutional support in their field of enquiry (Delborne, 2016). This article's case illustrates how OAB overlaps with scientific suppression. When an Emeritus Professor was attacked, he was not afforded the right to fairly represent and defend his scientific claims. OAB contributed to epistemic distortion in which the targeted scholar's teaching, research and publication projects were threatened, so he chose to withdraw from some debates. Not only did this reduce the public visibility of his scholarship, but it also contributed to a "chilling effect" for colleagues who became aware of the suppression by others of their

peer's opinions. Scientists experiencing this effect will steer their own practices and research away from sensitive issues to avoid becoming targeted (Martin, 1999). The professor's example presented a novel opportunity for us to prepare a target-driven case that addressed the digital forms of attack that are distinctive from those previously described in the academic bullying literature.

1.1. A novel threat lacking in definition

Our literature review began by exploring the published evidence for cases of faculty incivility, academic bullying and mobbing. We then explored variation in roles adopted in deviant interpersonal communication and cyber harassment, focusing on the experiences of victims targeted by academic cyberbullies. In an academic context, cyberbullying is one of several forms of cyber harassment that might be used to intimidate scholars for expressing unorthodox, dissident, and nonmainstream views. Definitions for cyber harassment vary but it is best understood as actions involving the intentional infliction of substantial emotional distress on the victim (Citron, 2014). This is accomplished by online speech that is relentless enough to amount to a 'course of conduct' rather than a single isolated incident. Cyber harassment can range from privacy invasions and reputation-harming lies to violence and cyberbullying. This aspect uses information and communication technologies to repeatedly and intentionally harm, harass, hurt or embarrass a target (Peter and Petermann, 2018).

A focus on OAB as a standalone category is necessary for alerting academics and researchers to a form of cyberbulling that is very different from other types. Its' recipient may have no obvious psychological risk factors. Instead, an OAB could be sparked by academic bullying and covert mobbing at his or her place of employment that can last months, even years. An OAB may also be catalysed by strangers whose adverse actions target scholars online. In the context of a highly polarised academic dispute, it can be difficult to distinguish intellectual harassment from robust academic debate. Intellectual harassment in OAB is marked as being excessive, one-sided and not meeting the standards of scholarly debate for its field. In the absence of appropriate safeguards at university or on digital platforms, motivated critics seem to use cyber harassment as a "legitimate" response to dissident, rebellious or heretical "outsiders". Similar to examples for scientific suppression (Martin, 2020), OAB attackers would likely consider their adverse actions as justified in supporting 'academic standards', but not as serving reprisals or as suppression. As "justified" attackers, a unique feature of OAB is that many attacks will be done by those who are visibly identifiable. The power imbalance in OAB is likewise unusual in potentially combining a myriad of critics-ranging from the target's known colleagues to anonymous accounts that might even include fake bots.

OAB involves academic contributors whose types of attacking content also differs strongly in potentially threatening their targets' reputations, professional contributions and legacies. Such attacks should not be considered as legitimate extensions or as valuable contributions to scholarly debate online. Cyberbullies in HE can readily exploit gaps in their employer's anti-harassment policies. The recipients of OAB would seem at highest risk if not explicitly protected from intellectual harassment by university policies or from cyber harassment by established policies for conduct on social media. While anti-social perpetrators are responsible for cyber-attacks, institutions are more likely to blame the victims of academic bullying and mobbing than to support them (Khoo, 2010). HE is a microcosm of broader social attitudes in which victims of cyber harassment are often blamed for "making" themselves targets of abuse (Citron, 2014). Targeted scholars must usually assume the burden of responsibility for confronting cyber harassment from fellow employees and for dealing with the consequences.

Academic cyberbullies exploit the technologies of social media network platforms to amplify their attacks. This magnifies the negative effects of cyberbullying since online victimisation is persistent (Watts et al., 2017). Attackers' accounts may also shift across varied platforms at

different times over a prolonged period. As a visible network, intellectual cyberbullies can form alliances and compete to see who delivers the "best" attacks. Such asymmetrical attacks are hard for an individual to defend against and can extend from cyber mobs to involve the recipient's family, colleagues and other supporters. OAB's attacks can also be distinctive in the persistent forms of victimisation they create. For example, 'Google bombs' feature defamatory chains of (sub-academic) re-publication by academics high in the search results for the recipients of such criticism.

Online harassment should be considered an insidious new form of workplace harassment (Jane, 2018). Not only does it impact an individual's occupational experiences, but it also begins with, stems from and overlaps with scholars' work (Gosse et al., 2021). Their lives are negatively impacted by online harassment's personal-, work-, and relational effects. OAB may also be a virtual extension of academic bullying that can exacerbate its negative outcomes: Academic bullying can impact the victim's psychological and physical wellbeing, social relationships and career and can have other serious consequences for victims (Seguin, 2016). Negative outcomes may include side-lining, dismissal or denial of tenure; early retirement or resignation; permanent or recurring sick leave; or, at worst, attempted or completed suicide; post-traumatic stress disorder (PTSD); mental breakdown; and even in 'going postal', with violent retaliations in the workplace (Westhues, 2006). Bullying harms

may extend beyond the direct target and may impact negatively on family members and associates (Armstrong, 2012).

In addition to flagging OAB as a new threat, we also wanted to support its recipients by encouraging the timeous reporting of this negative experience to stakeholders. OAB victims should benefit from having a well-defined, theoretical framework to cite when they need to shift their description of *subjective harassment* to valid reports of *objective harassment*. Victims of harassment describe the former as an awareness of being targeted (Brodsky, 1976). Objective harassment, by contrast, describes a situation in which the external evidence of harassment can be documented unequivocally.

To develop a reporting instrument based on a suitable framework, we examined a variety of cyberbullying theories (Barlett, 2019) before selecting the sociological extension of Routine Activity Theory (RAT) (Cohen and Felson, 1979). RAT seemed best suited for studying cyberbullying in HE since it accommodates a focus on victims whose cyber harassment requires contextualizing at varied levels and across diverse tools: RAT provides a clearer understanding of cyber harassment by considering both offenders' and recipients' behaviours, whilst identifying how media platforms can be misused to function as instruments of victimisation (Arntfield, 2015). This is important as an individual's routine use of varied communication devices (Yar, 2005) and participation in on-line environments may increase their probability of being targeted as victims (Fisher et al., 2002; Wilcox et al., 2007).

| Table 1. OABRAT | conceptual | framework | for intra-ps | sychological (| phase 1) | aspects. |
|-----------------|------------|-----------|--------------|----------------|----------|----------|
| | | | | | | |

| Index | AT component | Definition of component in relation to OAB | Sources in the literature |
|-------|--------------|--|---------------------------|
| 1 | Subject | A person is the target of cyber harassment from employees in HE | |
| 1.1 | | What types of digital content have employees in HE used to harass you with emotive and irrational criticism? | (Arntfield, 2015) |
| 1.2 | | What are the other forms of cyber harassment you experienced from employees in HE (such as cyberstalking and doxxing)? | (Barnes, 2018) |
| 2 | Tools | An individual experiences harassing content and other behaviours on digital platforms from employees in HE. | |
| 2.1 | | Which digital platforms are you being harassed on by employees in HE? | (Noakes and Sboros, 2017) |
| | | To what extent is replying to all the online criticism you experience on these digital tools a challenge? | |
| 3 | Object | A person must defend against critique online from employees in higher education. This criticism is excessive, one-sided and located outside of typical scholarly debate and the standards for its field. | |
| 3.1 | | To what extent are you experiencing one-sided critique from employees in HE? | (Noakes and Sboros, 2017) |
| 3.2 | | Do you perceive that this content is located outside of typical scholarly debate and its field's standards? | |
| 3.3 | | To what extent does the criticism by employees in HE seem an attempt to orchestrate online audiences' dislike, distrust and even hatred, of you? | (Wacquant, 1998) |
| 7 | Outcomes | An individual and their employer experience negative outcomes. | |
| 7.1 | | Negative effects for an individual | |
| 7.1.1 | | How severe are the types of misrepresentation that critics from HE seek to shame you with? | (Ronson, 2015) |
| 7.1.2 | | How are you described by others to be a victim of harassment from employees in HE? | (Hardaker, 2010) |
| 7.1.3 | | To what extent has cyber harassment from employees in HE influenced your personal life, work and relationships? | (Cassidy et al., 2014) |
| 7.2 | | Negative effects for an employer | |
| 7.2.1 | | Is there a visible, escalating conflict that poses a reputational risk? | |
| 7.2.2 | | To what extent are employees disengaging from work to protect themselves, leading to higher absenteeism? | |
| | | Do you think that the productivity and overall performance of your colleagues has suffered? | |
| 7.2.3 | | To what extent has your employer experienced increased personnel turnover since your harassment began? | |
| | | | |

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Table 2. RAT conceptual framework for inter-psychological (phase 2) aspects of online academic bullying.

| Index | AT component | Definition of component in relation to OAB | Sources in the literature |
|-------|--------------------|--|---------------------------|
| 4 | Rules | Attacks on an individual may be abetted by digital platforms negligence, as well as the institutional culture of the academic cyberbullies' employers. | |
| 4.1 | | To what extent did the policies of the digital platforms you used seem to protect you from harassment by employees in HE? | |
| 4.2 | | Do the workplace cultures of your academic cyberbullies' HE employers seem to develop and encourage bullying? | (Desrayaud et al., 2018) |
| 4.2 | | To what extent do HE institutions offer policy or other forms of support against bullying and cyber harassment? | (Gunsalus, 2006) |
| 4.3 | | How would you describe the reporting on bullying at the HE employers of the academic cyberbullies? | (Oksanen et al., 2020) |
| 5 | Community | An individual may receive little, or even no, support from his or her professional community. | |
| 5.1 | | To what extent were you supported by professional colleagues in your responses to cyber harassment? | (Twale and De Luca, 2008) |
| 5.2 | | Please describe the types of support that you received in your professional community, or why you believe you received none? | (Cassidy et al., 2018) |
| 6 | Division of labour | An individual may respond to harassment from academic cyberbullies alone, or be supported in his or her negotiations of cyber harassment. | |
| 6.1 | | How often are you the only person responding to attacks on you from academic cyberbullies? | (Driver, 2018) |
| 6.2 | | To what extent did you receive support from other potential respondents to cyberbullies? | |
| | | | |

RAT posits that changes to 'routine activities' in daily life influence everyday responses, based on crime statistics increasing during times of economic and social change (Cohen and Felson, 1979). Crime is likely where routine activity patterns are disrupted because of the three entities that are important to criminal behavior: motivated offenders, susceptible targets, and the absence of individuals with the power to stop the behavior. Used for predicting victimization, RAT flags that any macro level shift may lead to anti-social responses. In OAB's case, the shift of academic discourse to an online space without guardians gives academic cyberbullies the opportunity to target susceptible recipients. Absence of institutional guardianship and support for victims are contributory factors to OAB.

Our in-depth literature review of academic bullying and cyber harassment informed the development of a RAT framework into a reporting instrument-the OAB Routine activity theory (OABRAT) conceptual framework (see Tables 1 and 2). We illustrate how OABRAT can be used for describing cyber harassment from academics using the example of an Emeritus Professor's experiences. In addition, salient anonymised examples from social media are added for revealing OAB's unusual characteristics that are likely unfamiliar to most researchers. We trust that OAB recipients might follow his example in preparing their OABRAT report. They can share it with decision- and policy-makers at the institutions they are targeted from, as well as our OAB research project.

1.2. An Emeritus Professor challenges the consensus

In becoming a dissenter from mainstream science, the Emeritus Professor had shifted from teaching the dominant "cholesterol" model of chronic disease development (CMCDD) to arguing for the rival insulin resistance model of chronic ill-health (IRMCIH). In response, he experienced scientific impedance that included attacks on his position, credibility and claims, as well as suppression of his rationale for doing IRMCHI research. Critics of IRMCIH have argued that such suppression is legitimate. They believe it helps the general public avoid being exposed to ideas that differ from the scientific consensus on healthy eating behaviours and that might result in the adoption of harmful behaviours.

By contrast, such harms are unproven. Indeed, these sceptics do not address how a scientific "consensus" could have been reached in the

absence of real debate or support for testing IRMCIH as an alternate model. There is a distinct lack of robust debate in the medical and nutritional sciences regarding the role of different diets in disease prevention (Noakes and Sboros, 2019). Despite its obvious importance, such debate has not been allowed to happen (Teicholz, 2015). Instead, for the past 60 years, proponents of IRMCIH, who argue that low-carbohydrate high-healthy-fat (LCHF) diets are especially beneficial for those with insulin resistance, have been denied a fair hearing (Lustig, 2013; Taubes, 2007, 2011, 2017, 2020; Teicholz, 2014). Such denial reflects how actors who support an orthodox position, such as the safety of fluoridated water, often seek to completely suppress debate (Martin, 1991). In the Emeritus Professor's case, he experienced an academic mobbing at his university employer, which supressed his digital voice. One example was the deliberate blocking of his scientific rationale for IRMCHI on his university employer's digital platforms.

2. Background

2.1. Prevalence of (cyber-)bullying

Despite its serious outcomes, workplace aggression and bullying in HE institutions remains poorly studied (Keashly and Neuman, 2010). Although the negative effects of workplace bullying are especially apparent in HE institutions (Desrayaud et al., 2018), there are few reports of this phenomenon (Keashly and Neuman, 2013). A systematic literature review of workplace harassment in HE found 3,278 articles published between 1994 to 2013 (Henning et al., 2017). The review's in-depth analysis of 51 refereed articles, mainly from North America, suggested that forms of workplace harassment, including academic bullying, are prevalent in HE at all levels and across all disciplines. A review of the empirical research in the extant literature on bullying in the academe found that approximately 25% of academic staff self-identified as having been bullied within a 12 month period, while 40–50% witnessed others being bullied (Keashly, 2019).

Most cyberbullying research has focused on the targeting of children and teenagers in secondary schools (West and Turner, 2018) and there are few studies of the prevalence of cyberbullying between adults in institutions of higher learning. Cyberhate targeting academics is an increasingly prevalent phenomenon but presently there is very limited

Figure 1. Illustration of an activity system's characteristics (Travis Noakes, 2021), adapted from Kaptelinin and Nardi (2006), page 100. This figure shows the varied types of interactions that can occur in a strongly bounded activity system as described below.

specific conceptual or empirical research on its existence (Branford et al., 2019). Only a handful of studies (Coyne and Farley, 2018) have explored the cyber harassment of scholars in tertiary institutions (Cassidy et al., 2014, 2018; Coyne et al., 2017; Veletsianos et al., 2018). Coyne and Farley's study at three universities in the United Kingdom (UK) found cyberbullying frequency rates of between 14% and 21% amongst faculty. There seems to be a gap in research concerning the prevalence of academic cyberbullies in HE, as well their attacks on colleagues and people outside HE.

Numerous conceptual and methodological differences hamper the study of academic bullying (Cassell, 2011; Keashly and Neuman, 2010; Twale and De Luca, 2008). Differences in the operationalization of bullying as a concept, the host country, sample type and time frames for the experience have resulted in reported bullying rates ranging from 18% to ~68% (Keashly and Neuman, 2013). Conceptual and methodological differences make it impossible to determine the prevalence of bullying or to validate whether it is increasing.

2.2. Moving from subjective stories to the OABRAT reporting instrument

Cyberbullying is a recent phenomenon so that valid assessment instruments have been in use only since 2004 (Berne et al., 2013). A systemic overview of 44 cyberbullying instruments in use by 2010 found that 43 were designed for the study of middle school or adolescent individuals (Berne et al., 2013). Only one focused on adults (Coyne et al., 2009); it found that cyber harassment in virtual worlds via *griefing*-spoiling the game for other players was common. As there seemed to be no suitable instrument from amongst these that we could readily adapt as an OAB victimisation reporting instrument, we undertook research to find a theoretical framework for this purpose.

RAT was chosen as one of the more promising theoretical works of cyberbullying and online harassment and victimisation (Bossler and Holt, 2009; Bossler et al., 2012; Marcum et al., 2010). While other research approaches into cyberbullying consistently neglect the role of the victims, RAT considers the victim's experience as a key indicator (Arntfield, 2015). As mentioned in our introduction, RAT focuses on victims' and guardians' roles, or their absence, as well as the cyberbullies' behaviours. RAT also considers cyberbullying, electronic devices, intentionality, repetition, and imbalances of power as additional factors for consideration (Berne et al., 2013).

In studies at academic institutions, researchers have used RAT for addressing factors that place cyberbullying victims at high risk in US colleges (Bossler and Holt, 2009; Marcum, 2008; Marcum et al., 2010; Reyns, 2013), in Singapore high schools (Holt et al., 2016), in Canadian-(Welsh and Lavoie, 2012), Spanish- (Martínez-Monteagudo et al., 2019) and Vendan universities (Mabika and Dube, 2017).

Our study differs greatly from these in producing a retrospective, qualitative report on the academic bullying of an Emeritus Professor. This report drew on the OABRAT framework, which addresses RAT's six related elements (see Figure 1):

RAT stems from Activity theory (AT), which is a psychological framework for describing human activities as socially situated phenomena. A strength of AT is that it bridges the individual subject to his or her social reality through mediating activity. AT's unit of analysis is the activity system, which is object-oriented, collective and culturally mediated human activity (Engeström and Punamäki, 1999). AT is particularly useful as a lens for qualitative research, such as our case study since it provides a method to understand, describe and analyse a bounded phenomenon. We developed an OABRAT activity system and reporting instrument for framing a receipient's varied experiences when negotiating intellectual harassment in this problematic space.

Six related characteristics are used for defining actions in an activity system; an object(ive), subject, mediating artifacts (signs and tools), rules, community and division of labour. We describe the elements' relationships and illustrate these with an OABRAT example:

At the individual level (the top half of Figure 1's triangle), a subject uses tools to work for particular objectives (Leont'ev, 1978). Any (1) subject experiencing OAB must negotiate an unequal power relationship with the perpetrators of cyberbullying from HE. Recipients may negotiate cyber harassment for a lengthy period via their preferred social media tools (2). The recipient's (3) objective is to defend themselves from excessive, one-sided critique in front of online audiences. A successful response will help reduce risks to the individual's credibility and reputation.

In the social context (bottom half of Figure 1), a subject's actions are influenced by an activity system's community of actors, attendant rules (ranging from guidelines to laws) and how the social hierarchy divides activities (Engeström, 1987). Recipients of OAB will not have recourse against excessive critiques from mainstream academics if *rules* (4) and *policies* against intellectual harassment and bullying their HE employers are non-existent/inadequate.

Recipients' experiences of OAB (5) will also be difficult to challenge if there are no guardians in the *community* to whom cyber harassment can be reported. In responding to OAB, individuals may attempt a *division of labour* (6) that requests sympathetic colleagues to also respond to unfair criticisms online.

3. Methodology

For this article, we selected case study analysis (Yin, 2008) as both a research strategy and method (Brown, 2008) for developing a hypothesis for OAB and defining the OABRAT framework. Although case study methods are controversial, they support in-depth explanations of social behaviour and are widely recognized in social science studies (Zainal, 2007). The Emeritus Professor served as a co-author, participant and collaborative partner in this exploratory case study based on his real-life experiences of intellectual cyber harassment. His pilot case study and the OABRAT framework were also informed by a literature review and social media data analysis.

The research process that we followed in preparing the case over two years took seven steps-after we selected (i) the case, we defined the (ii) communication episodes and (iii) data from Twitter that was extracted on them. At the same time we did a (iv) literature review of related concepts and originally began to populate a framework (v) based on the key types of cyber harasser roles and their attacks. We found that the broad definitions for both resulted in a confusing index due to overlaps. In response, our literature review shifted to focus on scholars' cybervictimisation and negotiations of online harassment. At the same time, the Emeritus Professor wrote reflections (vi) on the background and course of each communication episode. In writing his case, we shifted from focusing on Twitter to addressing multiple platforms. We then (vii) refined his case study, the OABRAT framework and its reporting instrument to accommodate reviewer feedback.

Although the Emeritus Professor's case was a convenience sample, it is purposive in describing a public scientist who has faced varied forms of cyber-harassment for many years. His interactions on social media with a diverse range of critics in academia provided rich data for our longitudinal, pilot study. Selection of this case enabled us to maximize our learnings from fieldwork, as recommended by Stake (1995), given our limited time. His case provided a 'bounded system' (Cresswell, 1998) whose rich data could readily be queried for conceptualizing why and how OAB is distinctive-in addition to the extensive literature on his academic mobbing cited in his case study, there was also a fair amount concerning his use of social media as a public scientist: As the most active science tweeter within South Africa's academic community (Joubert and Costas, 2019), in studies in science communication (Joubert, 2018; Joubert and Guenther, 2017; Mudde, 2019) and social semiotics (Peck, 2016). His Twitter account has also featured in studies of engagement with open access articles (Alperin et al., 2019) and opinion deliberations on popular scientific papers (Sun et al., 2018).

Our research originally began by drafting case studies for a few, highly agentive trolls of his on Twitter. In drafting these, we also prepared a poster that listed varied online behaviors that seemed uncollegial and uncivil. Such behaviours were drawn from 28 key communication episodes (listed at https://bit.ly/38GF8Ha) between 2011 and 2020 that were linked to the scholar's dispute on optimum diets for IRMCIH management. Twitter data were extracted for each event up until November 2019. At the same time, we performed an ongoing literature review to explore whether similar forms of cyber harassment had been described in HE or elsewhere. We first focused on academic bullies, cybermobs and cyberbullies, reflecting our initial interest in developing anonymized case studies for different types of academic trolls and contrasting their strategies.

In researching this literature, we were alerted to the importance of foregrounding the victim's perspective. It is often neglected by researchers into online hostility (Jane, 2015). We could not find any cases that were like the Emeritus Professor's, so we shifted to spotlighting how scholars must negotiate the new forms of academic bullying that digital media platforms make possible. As OAB can span a myriad of online media, we also reviewed his wide-ranging digital interactions, ranging from academic blogs to public Facebook pages and Google Form petitions. Through a two-year interrogation of his case, we refined our definition of OAB to become a distinctive form of cyber harassment in which HE employees critique others in an excessive, one-sided manner. Such critiques take place on digital platforms located outside of typical scholarly debating fora.

A strength of case study research is that it supports extension of experience (Stake, 1978)- a case that is well described can be useful to readers who recognize similarities in their own experience. After selecting RAT as the case's theoretical framework, we discussed how this example might also prove useful to those facing online harassment from academics. We have made the OABRAT questionnaire available online as a reporting instrument for recipients to use. Through answering its questions affirmatively and describing their experiences of OAB

characteristics, victims can generate a report that flags how their OAB experiences are separate from normal debate and critique.

3.1. Strengths and weaknesses

Successful exploratory case studies achieve their stated purpose or meet the criteria on which their success should be judged (Tellis, 1997). It is a strength of the Emeritus Professor's pilot study that it supported the development of an OAB definition and the OABRAT framework. Intensive self-reflection and emotional insight are another important strength of this method (MacNealy, 1997).

Case study research has been criticized for weaknesses in rigour, providing very little basis for scientific generalisation and involving a lengthy and difficult research process (Yin, 2008). We addressed the last point by completing this pilot study and article in under two years. Its single case is not intended to represent a constituent member of a target population, therefore inevitably serving as a poor basis for generalization. In contrast, the in-depth case may support naturalistic generalisation (Stake, 1978) in being like other cases of OAB. Its victims are likely to recognize essential similarities from the Professor's case in the forms of cyber harassment they have also experienced. His case serves as a prelude to exploring such generalisation in the next stage of the OAB research project. Its outcomes may help confirm the case's resonance or indicate why the case is an OAB outlier amongst other influential IRMCIH experts.

3.2. Ethics

Our content analysis follows the 'Ethical decision-making and internet research (version 2.0) recommendations of the Association of Internet Researchers' (AoIR) Ethics Working Committee' (Markham, Buchanan, & AOIR Ethics Working Committee, 2012) and AoIR's initial guidance (Ess and Jones, 2004). All contributors of content to public forums (such as Twitter) under their genuine identities arguably waive their rights to privacy. However, digital platform users may have a narrow understanding of the flows of the information that they share. In the case of employees in HE, this information flow solipsism (Proferes, 2017) can mean that they would not expect their criticism to be featured in scholarly publications. This is a privacy sensitive context; being described as an academic cyberbully could have important ramifications, such as losing future employment opportunities. We have therefore taken steps not to mention any individual's or employer's names in the case study for non-maleficence. We have also not provided links to OAB participants' online communications. There is a downside to this, since not providing website links will make it harder for readers to understand the examples of cyber harassment we describe. By protecting individuals' privacy, we trust that the focus of this article is on the negative OAB phenomenon and our work is not misperceived as a retaliatory publication. It is no small irony that academics, who have been unethical in denigrating others in public, now benefit from this article's ethical considerations.

The only participant in the study is the Emeritus Professor and we further adhere to the ethical (Goldkuhl and Cronholm, 2003) requirements of the Code of Ethics of the World Medical Association (Declaration of Helsinki) (World Medical Association, 2013) for him as a patient of cyberbullying. The authors trust that the steps taken in this article to reduce any reputational risks to the individuals and employer concerned also keep the focus on the OAB phenomenon. The ethics committee at the Cape Peninsula University of Technology's Faculty of Informatics and Design (FIDREC) has approved the OAB project's varied stages (24/06/2019).

3.3. Evidence

We have proposed that the OAB object is a recipient's negotiation of excessive, one-sided critique on digital media from university employees. Such critique is located outside of the scholarly field and its standards.

Outside their scholarly field, such hypercriticism may well be deemed unacceptable and even unethical. We illustrate this definition using the Emeritus Professor's case, which is structured as a continuous chronological story that follows RAT's six characteristics and main outcomes. Each characteristic is introduced with the Professor's first-person reflection. His own words serve as an example of how a scholar might report on questions in the OABRAT research instrument (see Tables 1 and 2). Each characteristic in his case introduces a novel form of academic bullying that digital media enabled, which we elaborate on in the third person.

3.4. An Emeritus Professor experiences OAB [for each OABRAT characteristic]

In December 2010, the Emeritus Professor had become aware of the potential benefits of low-carbohydrate, high-fat (LCHF) diets as a result of Phinney, Volek and Westman's research (Westman et al., 2010). The Professor was surprised at their endorsement of the LCHF diet since he had high regard for their previous research. But promoting the LCHF eating plan was the polar opposite to the high-carbohydrate, low-fat (HCLF) diet he had personally adopted and endorsed for 33 years. As he had developed type 2 diabetes mellitus, he began to self-experiment with the LCHF eating plan and explored the accumulating evidence for its use. In April 2011, he let it be known in the lay media that he had chosen to radically alter his diet.

The shift in his scientific position on nutritional guidelines was without question controversial as his new position was in direct conflict with conventional dietary advice taught at his HE employer. After sharing information on the potential health benefits of the LCHF, Banting and ketogenic dietary approaches and the science supporting each, he became a target for an academic mob at his tertiary institution of employment.

Academic mobbing is a toxic social process through which an academic is singled out for ejection from academia (Seguin, 2016). It comprises methodical and aggressive actions that can ostracise an academic target over a period of months or years (Johnson, 2014; Khoo, 2010). The hallmarks of an event of academic mobbing identified in a recent review (Prevost and Hunt, 2018) were all identifiable in this case: An unresolved conflict arose between a Professor and members of his and other faculties, as well as his university's administration (Noakes & Sboros, 2017, 2019). There was a clear imbalance of power between the Professor and his attackers. He experienced positional bullying from the dean of the medical faculty, its professors and others in varied departments at his employer's institution. The intellectual, emotional and psychological attacks came from both academics and non-scholars, who focused on his academic work. He was attacked for over six months and heavily monitored, which took a psychological and emotional toll, expressed by his becoming tearful at one point during a public hearing (Narsee, 2016). As victimisation in the real world readily translates to victimization online (Holt et al., 2016), his example was germane for exploring OAB:

Misrepresenting an "official" university position via a Faculty website [Object]

In a university setting, OAB may be marked by criticism of victims by powerful individuals becoming misrepresented as the 'official position' from their faculties and even employer. Publication via institutional digital infrastructure can give criticism that has not been passed through conventional structures an appearance of being "official" correspondence. These unofficial communications may quickly be amplified by social media users as the "official" voice of a Faculty, and even a university:

'My scientific chapter in *The Real Meal Revolution* (2013) international bestseller explained why the diet-heart and lipid hypotheses were false. The chapter also described the importance of a carbohydrate-restricted diet based on an IRMCIH model. In 2014, I presented on this knowledge to the South African Parliament's Wellness Unit, which was reported

as a cover story in the Cape Times, a local daily newspaper. As a direct response, the head of marketing and communication at that institute's Faculty of Health Sciences (FHS), emailed a public letter from four medical professors to the Cape Times titled, '(Emeritus Professor's surname) diet and health implications' In it, the four professors sought to distance the FHS and the Institution from the "unproven" LCHF dietary approach. They accused me of acting without concern for the research reputation of their institution and for being socially irresponsible since they argued that my advice would cause harm (Noakes and Sboros, 2017). The letter did not go through any formal institutional committees and represented the opinions solely of its four authors in their personal capacities. Nevertheless, the letter's content was placed on a faculty letterhead that also featured the University's crest. This misrepresented the letter as being from my employer and faculty. While the letter is hosted on the FHS website, the FHS ignored my formal complaints and responses to senior management. Many years later, the FHS still has not shared my responses via its webserver, as would seem ethically appropriate.'

The above example evidences the one-sided critique that marks OAB. It also illustrates how HE digital infrastructure can support misrepresentation. In this case, unofficial correspondence continues to be misrepresented as "official": The Cape Times chose not to publish this letter either in its print edition or online as its owner's (Independent Media's) portal does not host a 'letters section' for the Cape Times. Instead the Professor's main charges in the letter were presented as part of an article written by a journalist employed by Independent Media (Villette, 2014). Since the Cape Times did not publish the full letter, the FHS webserver became the linking source from which the Adobe portable document file version could be distributed via social media and other digital channels. For example, the FHS website links to the letter as official correspondence (Faculty of Health Sciences, 2014). This webpage misrepresented the purpose of the letter as clarifying the FHS' 'position on the Banting diet being promoted by (the Emeritus Professor's name)', whilst also linking to the newspaper's lead article '(Employer) doctors slam (Emeritus Professor's surname)'.

The "official" misrepresentation was quickly amplified via social media platforms. For example on Twitter in 2014, the links to the FHS-hosted letter were shared over 50 times. The deliberative comments in the most re-tweeted tweets, summarized below, presented this press release to be the university's official position statement:

- i. (Employer's FHS) officially distances itself from (Emeritus Professor's surname) #Banting crazy talk. Hurrah for evidence -based reasoning < LINK>
- ii. Interesting read on "banting" from (university name)'s Faculty of Health Sciences < LINK>
- iii. Worth a read... What (university name) thinks of Banting <LINK>
- iv. Was wondering how (university name) was going to respond to (Emeritus Professor's surname) ranting about banting. Here it is < LINK>

'(Emeritus Professor's name) is making outrageous claims about Banting' says (university name) academics. Evidence please! <LINK>

2. Publishing an unfair, one-sided version of a debate [Subject]

Another marker of OAB is that there can be multiple forms of power imbalance between its victims and their academic cyberbullies. For example, scholars may confront academic cybermobs led by senior staff. Secondly, scholars may be targeted by academics who are more technically skilled in their use of online media. Thirdly, scholars can be positioned by antagonists as 'outsiders' who are "illegitimate" and have lost their right to participate in academic discourse:

"The "official" letter ended by referring readers to the FHS website's 'Big Fat Debate' (Faculty of Health Sciences, 2014) webpage. Its uniquely one-sided presentation (Noakes and Sboros, 2017) clearly evidenced the power imbalance between myself, a maverick scientist challenging this scientific orthodoxy, and its FHS supporters (Noakes and Sboros, 2017).

While the page promised that the host institution is committed to 'academic freedom' and 'free enquiry', I was actively excluded from expressing my contrasting opinions and published evidence. I raised my concerns about the page's clear bias with my institution's senior management. Despite verbally agreeing with these concerns and promising that the webpage would be removed, it remains available online today, seven years later, seemingly as a resource for the entire FHS community. If the resource's aim is to provide a fair reflection of the debate, then the FHS must be ethically-bound to provide me with an opportunity to respond. Both the open letter and the web page's unfair representation of the argument suggested how a powerful minority in the FHS leadership could censor both my digital voice and other proponents of IRMCIH's wiews :

Neither senior management nor FHS leadership ensured that the Emeritus Professor had a right-of-reply in a highly-visible FHS web resource. Such censorship evidenced the first and third aspects of the OAB's power imbalance. Such silencing resonates with the experience of other academics whose controversial research has revealed the narrow bounds of academic freedom (Hoepner, 2019). The next example spotlights the second aspect of the power imbalance, whereby technically skilled academics use chains of republication for their attacks.

3. Defamatory online profiles and chains of re-publication [Tools]

Another distinguishing feature of OAB is the seemingly unlimited number of critiques that can be shared online as part of a chain of republication. Such critiques can become quoted in unbalanced and defamatory online profiles about their victims:

'Before 2012, I was not active on social media. Like most scholars, I chose to focus my academic time writing for traditional scholarly

publications. On the 9th of April, I joined Twitter on a friend, Lewis Pugh's advice that it was an ideal medium for sharing LCHF science with a global audience. I also started responding to criticism in academics' blogposts and online newspaper articles via their comment sections. Where necessary for registration, I used my wife's Facebook account, since I had not created one. I also used it to respond to feedback on my Facebook public author's page and others. Responding to these critiques in online print- and social media platforms was frustrating as my critics simply ignored the growing science supporting the IRMCIH model. Rather whenever unable to respond logically to a challenge, they would quickly shift the arguments by adding more unrelated criticisms. I soon learnt that this is the typical response of activists for whom facts (and truth) can seem irrelevant (Dreger, 2016).'

The victims of OAB find it difficult to monitor and respond effectively to criticism that can span varied online platforms. For example, hypercritical posts can quickly move through a chain of re-publication. In this media environment, scholars cannot respond to all the potential audiences of a specific critique. Victims' initial responses to criticism will not be carried over into the linked publications for addressing additional audiences. For example, (i) an academic blogpost can be shared via an author's (ii) medium.com account, then via their (iii) public Facebook and (iv) LinkedIn accounts, and read out in a YouTube video (v). Academic blog posts may further continue down a re-publication chain by being pooled on the dailymaverick.com (vi) or quoted in groundup.com (vii). Some of their content may be lifted in related (viii) wikipedia.org and (ix) rationalwiki.org entries. The posts may also be linked as "credible content" in biased overviews of the scientific dispute (x) "The Big Fate Debate", as well as into "research" reports (lacking ethical clearance but become) shared via ResearchGate (xi) or as resources on quac kdown.com (xii).

2010

The Emeritus Professor reads the book The New Atkins for the New You. He realizes that the dietary advice he has been promoting for the past 33 years is not evidence-based.

2011

The Emeritus Professor experiences the benefits of changing his diet to a low-carbohydrate, high fat (LCHF) lifestyle.

He writes 'Against the Grains' for Dis magazine which describes his radical change in diet.

ery Health magazine removes him as a contributor although he remains as their Discovery Health Professor of Exercise and Sports Science. He experiences the first cuts Discovery Health

2012 The Emeritus Professor joins Twitter as @ProfTimNo

A second edition of the Emeritus Professor's autobiography 'Challenging Beliefs' is published with a novel dietary message

The Centre for Diabetes and Endocri-nology warns against the EmeritusPro fessor's "Diet".

The Health Professions Council of South Africa (HPCSA) releases statement that the LCHF (Banting) eating plan may have "serious health consequences

A group of Cape Town cardiologists A group of Cape Town Cape publish a letter in a local newspape They state that the in Cape Town. They state that the Emeritus Professor's high-fat diet

The South African Medical Research Council (MRC) terminates funding of the Emeritus Professor's MRC-funded research unit after 25 years in

The 'Lore Of Nutrition' by Marika Sboros and the Emeritus Professor is published.

the 'Use of social media by health professionals in South Africa' is published in the SAMJ.

An online pettition is launched proposing that the HPCSA hearing should be terminated

The fifth session of the HPCSA Professional Conduct Committee (PCC) finds the Emeritus Professor not guilty.

The HPCSA chooses to appeal the finding of its PCC

A second petition calls for the HPCSA to terminate its appeal against PCC's innocent verdict

"Low-carbohydrate and high-fat intake can manage obesity and associated conditions: Occasional survey" by the Emeritus Professor is published in the South African Medical Journal (SAMJ. The survey reports the experiences of 127 persons who had adopted the Emeritus Professor's diet with remarkable outcomes

The Real Meal Revolution, which the Emeritus Professor co-authored, is published.It launches the Banting (Low-Carbohydrate) Diet Revolution in Southern Africa

The Emeritus Professor does a presentation to the South African Parliament's Wellness Unit.

A Centenary Debate between Professor Jacques Rossouw and the Emeritus
Professor is hosted
at his academic employer. Rossouw flouting the Hippocratic Oath'

2018

The Emeritus Professor's editorial 'So What Comes First: The Obesity or the Insulin Resistance? And Which Is More Important?' by is published

The article: 'A carbohydrate ingestion intervention in an elite athlete who follows a low-carbohydrate high-fat diet', which Emeritus Profes red, is published.

An online petition calls for the removal of the Editor of the British Medical Journal of Sports Medicine. The Editor is a personal friend of the Emeritus Professor

the Emeritus Professor innocent of all charges.

2014

Die Kos Revolusie and Raising uperheroes are published. They wi be translated into three additional languages

The Emeritus Professor is invited to speak to the South African Parliamen-tary Wellness Unit. The lecture is reported on the front page of a local newspaper the following day with an accompanying photograph.

A public letter from four profess e Faculty of Health Sci to the Cape Times newspaper aregue that LCHF diets may have negative effects. Their letter will be misrepre sented on social media as official university correspondence

The Emeritus Professor is reported to the HPCSA for giving "incorrect medical advice" on Twitter. The complainant is the then President of the Africa (ADSA). ADSA has received numerous complaints from South African dietitians that the publication of The Real Meal Revolution is harming the dietetics profession in South Africa.

2019

An article co-authored by the Emeritus Professor and part-funded by his Foundation and entitled "Diet, Diabetes Status, and Personal Experiences of Individuals with Type 2 diabetes Who Self-Selected and Followed a Low Carbohy

drate High Fat diet", is published. The book "Real Food on Trial: How the Diet Dictators tried to destroy a top scientist" written by the Emeritus Professor and Marika Sboros, is published.

The article: "High Rates of Fat Oxidation Induced by a Low-Carbohydrate, High-Fat Diet, Do Not Impair 5-km Running Perfor-mance in Competitive Recreational Athletes co-authored by the Emeritus Professor is published.

2014, cont.

A meta-analysis purportedly comparing the results of studies of the Banting diet with those o the medically-accepted low-fat high-carbohydrat diet is published. The article is widely reported in the South African media as proof of the dangers of the Emeritus Professor's low-carbohydrate diet. However the meta-analysis ca

excludes any analysis of diets that are truly low-carbohydrate (according to accepted defini-ions) and does not find any evidence of potentia dangers in the "low-carbohydrate" diets that it studies. Subsequent analyses reveal other major potential flaws in the published meta-analysis

The FHS establishes a web page to "foster informed engagement of the issues related to the Diet debate". In an absolute negation of its public statement, the FHS excludes the Emeritus Professor from making any contribution to this

On the basis of the four Profe dubious "low-carbohydrate" meta-analysis, the HPCSA's Fourth Preliminary Committee decide to charge the Emeritus Professor with "unprofes sional conduct that is not in accordance with sional conduct...that is not in accordance with the norms and standards of your profession in that you provided unconventional advice on breastfeeding babies on social media (tweet)"

2020

The article "Reduced Glucose Tolerance and Skeletal Muscle GLUT4 and IRS1
Content in Cyclists Habituated to a
ong-Term Low-Carbohydrate, High-Fat Diet" which the Emeritus Professor co-au thored, is published.

Two contributions co-authored by the Iwo contributions co-authored by the Emeritus Professor to the International ournal of Exercise Science Conference are blished: "Effects of a 6-week Low-Carbohydrate High-Fat Diet on Lipid Profiles in Competitive Recreational Distance Runners' and "Effects of a Low Carbohydrate Diet Versus a High Carbohydrate Diet on 5-km Running Performance".

The first session of the HPCSA Hearing begins. Six sessions will be held, only ending in 2018 2016

into the Emeritus Profe

2015
'A NEW DIETARY PARADIGM?

Low-carbohydrate and high-fat intake can

manage obesity and associated conditions:
Occasional survey' by the Emeritus
Professor is published in the South African
Medical Journal (SAMJ).

The article "Gluconeogenesis during endurance exercise in cyclists habituated to a long-term low carbohydrate high-fat diet' co-authored by the author is published. The funding for the study was sourced by the Emeritus Professor's Foundation

The HPCSA issues a false press rele stating that the Emeritus Professor has been found guilty as charged.

Figure 2. A visual timeline for the Emeritus Professor's case.

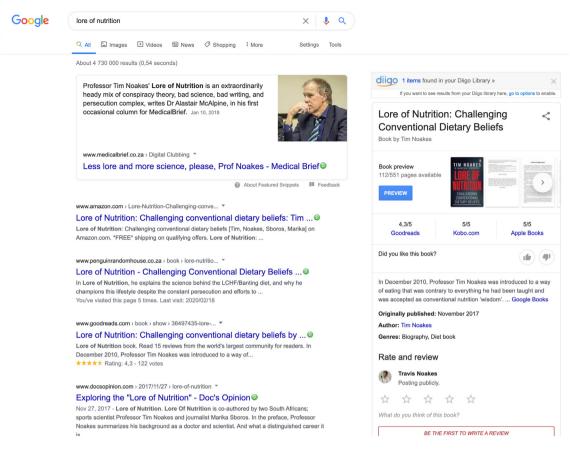


Figure 3. Screengrab of Google search result for 'Lore of Nutrition', 20 May 2020.

Some of these publications (notably, vii, ix and xii) seem to provide a type of *digital pillory* in which the shaming and defaming of scholars is normalised and they are not granted a right of reply. The digital pillory has replaced the mediaeval one as an instrument for authorities and the public to exercise public shaming (Jensen, 2020). Unlike the old pillory stuck in one space, digital pillories can be widely diffused. These multiple sites reflect how linked digital platforms create a pipeline for denigration that has very little friction (Jeong, 2018).

Linked to one-sided unscholarly critique, other OAB markers include the unbalanced foregrounding of criticism in defamatory online profiles and the top results on a search engine results page (SERP). Examples of unbalanced defamatory online profiles for the Emeritus Professor were created on Rationalwiki (2019) and Wikipedia (2011). For OAB, this had similarities to the appropriation of a target's digital image and identity being a unique aspect of cyberbullying (Francisco et al., 2015). Figure 2 illustrates how a Google SERP for the book, the 'Lore of Nutrition', featured a very negative review in its top Google snippet. This is an example of a Google "bomb" since the search engine could instead have featured any of many highly positive and complimentary reviews (see Figure 3).

A technical explanation for a review being chosen in the snippet view is that the review is cited on Wikipedia, which is deemed credible by Google (Ford, 2015). The reviewer's publisher can use tag commands in the html code of the review's webpage for tailoring a specific section to display in a snippet. Rather than being an authoritative source produced by disciplinary experts, biased Wikipedians can use their knowledge of Wikipedia to foreground negative reviews. Together with a publisher's clickbait coding choices, this may help these reviews to a high position as "credible" and "authoritative" in snippets at the top of Google's SERP. Google's SERP algorithm does rely on over 200 ranking factors (Löffler and Michl, 2019) and other factors, notably organic search, text length,

phrasing and images, may also be highly important for a snippet's SERP salience (Sam-Martin, 2020).

 Rapidly amplifying dubious research and fake news with impunity [Rules]

Another concerning aspect of OAB is where dubious research and false news is rapidly amplified, but these flawed publications are seldom deleted or retracted by their sharers once identified as misinformation. Uniquely, OAB may include examples of antagonistic scholarship that present a "legitimate", albeit one-sided, critique that then becomes strongly amplified online with impunity. This seems likely where university employers are unwilling to confront their source(s) and to defend their scholarly targets despite clear evidence of bias being reported. Targets of such attacks seemingly lack recourse against platforms on which misinformation gains high visibility and goes 'viral' via social media.

'Ten years after I first spotlighted the IRMCIH model, it was notable that relatively few of my critics had responded through the traditional academic avenues (see Figure 2). The most widely shared critique was a meta-analysis of LCHF diets (Naude et al., 2014), which had 14 material errors and was so error-ridden that it was potentially duplicitous (Harcombe & Noakes, 2016, 2017). This article was widely quoted in the broadcast media without critique and has been cited over 100 times. By contrast, none of the many meta-analyses with opposite findings were spotlighted. Although revisions to the original version were published in response to our critique and others' comments (The PLOS, 2018), the changes did not address all material errors. Repeated attempts to have my employer's institution investigate the reasons why such errors could possibly exist in a peer-reviewed publication, have essentially been ignored.

Importantly, Naude et al.'s flawed article (2014) was used as the sole body of evidence (Noakes and Sboros, 2019) in my two-year long HPCSA hearing (June 2015 to 2017) relating to a tweet I made in February 2014. The HPCSA subsequently released a false press release stating that I had been found 'guilty' of "unprofessional conduct" on the 28th of October, 2016. The HPCSA retracted this false statement within six hours. The false news was retweeted well over 100 times, continuing into the next day. On the 21st of April 2017, I was declared innocent of all charges.'

Recipients of academic cyberbullying would seem to require supportive policies and responsive staff at academic institutions who can warn and censure employees for wilfully spreading misinformation. Universities could put in place appropriate countermeasures against academic cyberbullying. The might include; faculty anti-harassment policies (Twale and De Luca, 2008), anti-cyberbullying programs, victim reporting systems (Oksanen et al., 2020) and a clear policy for punishing perpetrators (Peled, 2019), recognising the dangers of intellectual cyber harassment.

5. Highly-visible, antagonistic networks attack dissent [Community]

In the covert process of a traditional academic mobbing, a target cannot easily identify all those involved (Khoo, 2010). By contrast in an OAB, the individuals and networks involved in a dispute are often readily identifiable to both antagonists and protagonists. It is relatively easy in an OAB for the individuals and networks involved in a dispute to be identified by both critics and fans. Many digital platforms are designed by default to make their participants and affiliations visible to other users. In an OAB, pack hunting academic cyberbullies can abuse such visibility for collaborative attacks aimed at denigrating their targets' reputations. Such attacks also attempt to break their targets' bonds with online audiences, generating negative social capital. This anti-social capital is the orchestrated dislike and distrust of a person or group by other people and groups (Wacquant, 1998).

'The editor of a medical journal in which two of my LCHF-related articles were published, became the target of an online petition (Freedhof, 2018) calling for his removal as editor. This petition (Guess et al., 2018) was signed by 169 individuals, which included all of my most vociferous online critics at the time. Previous petitions to the same journal had targeted its critiques of orthodox HCLF positions -the science behind the US food guidelines (Teicholz, 2015) and the belief that fat consumption is responsible for heart disease (Malhotra et al., 2017). Online petitions also afforded my growing LCHF support base an opportunity to register their disapproval of attacks against me. Two petitions asking the HPCSA to halt its hearing (Nye, 2017) and appeal against my not-guilty verdict (Hallberg, 2018) attracted 11,396 and 42,640 signatories, respectively.'

6. One academic, many cybermobs [Division of Labour]

The recipients of OAB would seem to face a highly asymmetrical struggle in defending themselves against highly agentive critics and cybermobs. In addition to performing their professional duties, targets may initially face the additional burden of responding to online denigration with little to no support.

'After joining Twitter, I largely responded to criticism that was directed to my Twitter handle. Since I manage my own Twitter account, there was no division of labour in responding to critical tweets and replies regarding my views. I muted and blocked accounts that were uncivil and hyper-critical, but did not report tweets as I was not aware that this was possible. Over time, as my numbers of followers has grown and the science for IRMCIH and LCHF approaches has increased, my Twitter followers have increasingly responded to uncivil attacks on me. After experiencing their robust criticism, some of my most vociferous fault-finders have started to present themselves as "victims" of LCHF "trolls".'

The response of the Emeritus Professor's critics to their "trolling" highlights an important challenge in distinguishing appropriate mass

responding, such as constructive collective action and upstanderism, as opposed to inappropriate forms ranging from bystanderism to cybermobbing. Such distinctions must consider how patterns of micro-level conversations on social media are influenced by meso- and macro-level social realities. It is also important to differentiate between once-off attacks and systemic attacks that are orchestrated attacks by powerful groups (Porter, 2020). In HE, discussions on the IRMCIH model largely remain hidden in the traditional academic fora of the health sciences. Scholars wishing to exercise academic freedom in researching IRMCIH find themselves in a challenging position. They must use LCHF connective movements for learning, teaching, support, networking and scarce funding opportunities. In doing this, they must negotiate informal attacks by cyber mobs.

In the Emeritus Professor's case, he developed a large Twitter following by sharing state-of-the-art IRMCIH news and being highly engaged with LCHF communities (Joubert, 2017). He emerged as a global scientific leader in the low-carb connective movement. Such movements combine the shared interest of diverse groups through informal interactions outside institutional spheres (Chung et al., 2021). The LCHF movement promotes IRMCIH science and low-carb lifestyles, spanning groups as varied as carnivores and vegan. As a dissident scholar he experienced attacks that seemed orchestrated by powerful groups across the fields of academia, media and industry (Noakes and Sboros, 2019). Initially, there were very few individuals in HE who defended his right to disagree with the dietary consensus (Steer, 2019) and most of his former employee's colleagues have remained bystanders. By contrast, several individuals in the LCHF connective movement have become 'upstanders'. These are former bystanders who have recognised patterns of bullying behaviour and choose to intervene in a bid to stop bullying (Padgett and Notar, 2013). In responding belligerently to the professors' critics on social media, his defenders fall into a grey area where they can also reasonably be accused of digital aggression.

7. No recourse against persistent online victimisation [Outcomes]

In the absence of upstanders, guardians and salient countermeasures, OAB recipients' rights to free speech and work fulfilment can be severely harmed. In addition to online harassment having negative impacts in individual's personal lives, on their workplaces and relationships, it may also harm their employers:

'The Medical Research Council and a major corporate funder decided not to fund my research, so I was unable to pursue IRMCIH research in the last three years of my career (2012-14). The negative impacts of my academic bullying contributed that I and four senior staff (three full professors and a senior lecturer) left my former institute's employ. It is worse off: In 2012 it would publicly boast of housing three world-ranking research institutes. One of these was the research unit that I had founded and led for 33 years. Two years after I left, that international status has evaporated. The institute had been unable to replace the funding that I helped source and its lost senior staff have been replaced with lessexperienced academics. Despite such negative outcomes, many of the hypercritical staff from my former employer have enjoyed promotion there or at other institutions. The libellous and defamatory content they wrote about me and other LCHF advocates remains online and is easily searchable.'

4. Summary

This paper makes a small contribution to anti-cyber harassment advocacy in HE, by defining OAB and sharing an exploratory case study. The article spotlights OAB's distinguishing forms, characteristics and reputational challenges. The Emeritus Professor's case raises an important concern in how OAB serves as a new form of scientific suppression against dissenters.

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4.1. The start of future studies

The Emeritus Professor's experiences of OAB may be an outlier or scholars' experiences of OAB may be more the norm than the exception. We will pursue research in this direction for IRMCIH health experts in Australasia, North America, Scandinavia, and the United Kingdom. Many have described confronting both formal censure and cyber harassment. We have made the OABRAT framework available as a Google Form at htt ps://bit.ly/3787wkG and the next stage of the OAB research project will collate feedback to it from these experts. This will enable us to add to the cases for OAB, whilst also refining the reporting instrument for broader use. Should it prove useful to them, we hope that it could be refined to support the development of a sustainable protocol for flagging cyber harassment in HE. This step has been recommended for countering cyberbullying in one's field (Branford et al., 2019).

We welcome all critiques of our OAB definition and OABRAT framework by those genuinely interested in combating harassment by academic cyberbullies. Respondents may be able to suggest further distinguishing behaviours to add or argue that some practices do not apply.

Declarations

Author contribution statement

- T. Noakes: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.
- T. D. Noakes: Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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The data that has been used is confidential.

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The authors declare no conflict of interest.

Additional information

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