Review

The emergence of the occupational health and safety profession in Australia

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ABSTRACT

The Occupational Health and Safety (OHS) profession is well established in Australia and it would be rare, if not impossible to find a medium to a large public, private or government organisation without an OHS professional department. This paper explores the development and current status of the OHS profession in Australia. To be recognised as a profession, any occupation needs to satisfy a number of individual, collective and external professional criteria. This paper reviews the OHS profession in Australia, through these professional criteria and we describe the: role and career path, defined knowledge and skill base, ethical code of practice, professional status, professional organisations, professional entry criteria, professional education, external requirements, stakeholders, and societal recognition. To further examine the extent to which the OHS occupation deserves professional status we explore in detail the professionalisation strategy of the Safety Institute of Australia (SIA) over the past 8 years. Since 2010 the Safety Institute of Australia (SIA), the largest and broadest Australian OHS professional organisation, has rigorously pursued a strategy aimed at increasing the professionalisation of the OHS profession through concurrent programs of: professional certification, university curriculum accreditation, and the development of an 'OHS Body of Knowledge'. This paper concludes that the OHS profession in Australia can be considered an 'emerging profession'. An emerging profession is a recognised discipline or occupation that has established, although not consistently implemented the structures, capability and recognition necessary to be considered an established profession. The current and future challenges and opportunities for the OHS profession are discussed.

1. Introduction

The Occupational Health and Safety (OHS) profession is well established within corporate Australia and it would be rare to find medium to large public, private or government organisations without a professional OHS department. The development of the modern OHS profession in Australia commenced in the late 1980's and early 1990's in response to the significant expansion of workplace health and safety legislation both federally and by each state in Australia. However, the OHS profession more broadly has a much longer history dating back over 100 years.

In Section 2 we establish the context for the OHS profession in Australia by exploring the development of the health and safety, economic and political landscape over the last 50 years. Section 3 addresses the current status of the OHS profession in Australia and specifically answers the question as to whether the OHS occupation can be considered a profession. This question is answered through a case study that analyses the activities and progress of the Safety Institute of Australia (SIA) through applying an established professional criterion. The

paper concludes by proposing and discussing critical challenges and opportunities.

2. The development of the OHS profession in Australia

Prior to the federation of Australia in 1901, Australia consisted of a number of British colonies and the government structures were heavily influenced and controlled by England. The establishment of structured OHS management in Australia began in the 1800s in the states of New South Wales (NSW) and Victoria. In NSW in 1854, legislation was enacted to regulate working conditions in coal mines (Pryor and Ruschena, 2012). This legislation was a direct result of the investigations into the health, safety and working conditions in the coal mines in England (Inghamet al., 1843). In Victoria, British-style factories legislation was enacted to govern the growing manufacturing activity in the state (Pryor and Ruschena, 2012). With the exception of these first legislative developments, there was no formal attention to OHS in Australia during the 19th century.

Following World War II, in the late 1940s there were important

advances in the organisation and management of worker health and safety. Collective associations were forming around the world to focus effort on this issue with the establishment of the Institute of Occupational Safety and Health (IOSH) (UK) in 1945, and the World Health Organisation (WHO) in 1948 (Eddington, 2006). In Australia, the Accident Prevention Group was formed in 1949, which later became the Safety Engineering Society of Australia, and most recently the Safety Institute of Australia (SIA) (Pryor and Ruschena, 2012). In 1949 the first safety specific education course was developed in Victoria and this certificate program became the model used in the other states of Australia.

Consistent with the established military structures used during World War II, public and private organisations began to employ personnel officers to manage working conditions which included safety. The emergence of 'Personnel Managers' can be considered the starting point for the OHS profession within organisations in Australia, although at the time they paid little attention to the issue of health and safety and had no knowledge or experience in these matters (Teicher et al. 2006). The OHS role that was being performed by personnel managers at this time had a technical and engineering focus with the medical profession having dominance over worker health and safety expertise and advice (Teicher et al., 2006).

Between the 1950s and the 1970s, Australian labour legislation lacked coordination and was developed and enacted on a state-by-state basis. Some parts of the workforce remained not covered by any form of health and safety legislation (Mayhew and Peterson, 1999). While in other ways, some of the state governments across Australia were expanding their interest and reach concerning the issue of worker health and safety beyond enacting legislation, for example the Victorian government conducted an investigation of back injuries in meat workers and labourers (Pryor and Ruschena, 2012).

The 1970s saw the beginnings of a major shift in the management of health and safety in Australia. The Trade Union movement promoted an active interest in the health and safety issues facing their members. Media attention was growing in relation to social and economic issues, including workers compensation, and health and safety was becoming a broad public issue for society. There was an increased demand for dedicated OHS personnel who usually had a trade or operational background (Dwyer, 1992; Mayhew and Peterson, 1999).

The Victorian government recognised the need for specialist OHS courses and established the first distance education program based on the previously established certificate program. New South Wales and Queensland soon followed. The Safety Engineering Society of Australia changed its name to the Safety Institute of Australia (SIA) and there was a significant increase in the membership of the body (Pryor and Ruschena, 2012). Notwithstanding this growth in the profession, the role practiced within organisations struggled with ambiguity and lack of status (Quinlan and Bohle, 1991). The approach to health and safety at this time in Australia began to merge the technical and person-focussed approaches, with limited but increasing attention to organisational management systems for safety.

In the 1980s, health and safety in Australia advanced considerably as a result of legislative change based on the Roben's model in the UK, which was progressively introduced across the Australian states. In Australia, this introduction of legislation combined with the increasing cost of workers compensation, led to the establishment of OHS departments in large companies. These OHS departments were staffed by people ranging from those highly skilled, to those with basic or no training (Dawson et al., 1984). OHS in Australia was entirely seen as a compliance issue with the safety role in organisations focussed on legislative interpretation and the maintenance of safety records (Dawson et al., 1984; Borys et al., 2006; Hale and Guldenmund, 2006; Provan et al., 2017).

In the 1990s the weak economic conditions in Australia impacted the development trend of health and safety within organisations and within the OHS profession (Mayhew and Peterson, 1999). This

economic recession lead to a weakening of the attention and resources focussed on workplace health and safety (Blewett and Shaw, 1996). Large OHS departments in Australian companies were replaced by smaller 'line' units or individual practitioners (Mayhew and Peterson, 1999). This in turn created a growth in safety consultants and other contingent workers. OHS professional roles in organisations were also increasingly expanded to include other functions such as quality, environment, security, and later risk and compliance. Given the economic conditions in Australia at the time, OHS professionals found themselves in a decisional dilemma due to the sometimes divergent need of the profession to advocate for investment in safety and the need for management to reduce costs (Nelson, 1994). The nature and extent of OHS professional influence was affected by factors such as management style, economic pressures, and level of union involvement in the workplace (Mac Intosh and Gough, 1998).

From a single tertiary OHS qualification in the 1980s, the availability of OHS specialist education and training available in Australia expanded significantly during the 1990s, and there was a plethora of OHS courses at tertiary level (Quinlan, 1995). In 1997 the ESSO Longford gas plant explosion in Victoria, led to a Royal Commission and the attention focussed on (a lack of) management systems for safety (Mayhew and Peterson, 1999). This led to a rethinking of 'quality' management techniques and a focus on the 'paper trail' for a due diligence demonstration of safety compliance. The Australian Standards organisation commenced the development of a standard for OHS management systems based on the established quality and environmental management standards.

In the 2000s, the approach to OHS within Australian organisations was extremely varied, from the traditional compliance approach to emerging behavioural and cultural approaches. Australia had developed Roben's style legislation based on the UK approach, which focussed attention on employers and managers of organisations discharging general obligations and demonstrating safety management to policy makers and regulators. The advice of OHS professionals was often sought on these technical and compliance matters, but rarely on management or strategic issues (Pryor, 2014).

The significant demand for OHS professionals in Australia in the early 2000s, was caused by the turn around in economic conditions and record investment in the resources and construction industries. This dramatic increase in demand created extreme variability in the role performance, capability and practice of the profession in Australia. A considerable volume of people within organisations transitioned their careers into OHS roles having no formal safety education or training. The role profile of OHS professionals within Australian organisations did not differentiate between tertiary qualified, vocationally qualified and un-qualified OHS professionals.

By the mid-2000s, the tertiary OHS programs established in the 1990s were no longer valued within universities and there was difficulty in obtaining qualified educators combined with a lack of student enrolments (Pryor and Ruschena, 2012). OHS tertiary education shifted to become a secondary discipline, largely studied by mature-age students, and the reduction in bachelor level OHS programs further threatened the supply of future educators and researchers. There was a lack of an agreed body of knowledge for OHS Professionals leading to diverse and fragmented education curriculums (Toft et al., 2009; Pryor and Ruschena, 2012; Provan et al., 2017; Pryor, 2019).

In this section we established the context for the OHS profession in Australia through reviewing the development of the profession within organisations over the past 50 years. When the Safety Institute of Australia (SIA) developed the OHS professionalisation strategy in 2009, the OHS profession could have been considered fragmented and marginalised.

3. Current status of the profession

In this section we explore the current status of the OHS profession in

Australia through a case study that analyses the activities and progress of the Safety Institute of Australia (SIA). The aim of this section is to determine whether the current OHS profession in Australia can be considered a profession. To do this we apply a set of criteria for a profession that addresses individual, collective and external factors.

In 2016 the SIA established a 5-element strategic professionalisation agenda to progressively improve the capability, effectiveness and recognition of the OHS profession (Safety Institute of Australia, 2017a). These key elements are:

1. Foundation knowledge base (OHS Body of Knowledge)
2. Education assurance and standards though accreditation of OHS professional education and influencing vocational OHS training
3. Defining the role knowledge and skills through application of the (INSHPO Global OHS Capability Framework)
4. Capability assurance and standards by certifying individual OHS Professionals and Practitioners
5. A career learning framework supporting professional development informed by the OHS Body of Knowledge and the Global OHS Capability Framework) (Safety Institute of Australia, 2017a).

3.1. Individual professional criteria

3.1.1. Role and career path

The OHS profession in Australia currently does not have a clearly defined and universal career path for practicing professionals. Notwithstanding this lack of formality, the practice of OHS professionals in Australia can be argued to be considerably consistent across many industries and organisations. However, rather than being a deliberately structured role and career path as in other professions, such as: medicine, law, accounting and engineering, the consistency is due to other factors, including the inter-industry mobility of OHS professionals and the open sharing of safety information and practices between organisations.

The current career path of OHS professionals in Australia seems to follow a role title structure similar to that of the human resources profession, namely: OHS Coordinator, OHS Advisor, OHS Manager, General Manager, and Director or Executive General Manager. It is also common for OHS to be part of an integrated function, for example, 'Health, Safety and Environment' (HSE). Over recent years, role titles have further diverged, with organisations re-naming their OHS professional positions to align with their safety or business strategies, with titles ranging from Zero Harm Manager to Safety Business Partner.

Since 2006, an Australian OHS professional specialist recruitment company, Safesearch, has been conducting an annual remuneration benchmarking survey (Safesearch, 2018). The salaries of OHS professionals have consistently increased over the period of the survey, with changes being linked to macro-economic trends and the increases in demand for OHS professionals that comes with increased economic activities in the dominant Australian industries of: mining, oil and gas, and infrastructure. Whilst some OHS professionals have diverse multi-industry career paths, the dominant career development path in Australia is for the OHS professional to remain in a single or in a few closely related industries (Safesearch, 2018). Australian organisations prefer to hire and develop OHS professionals with Australian nationality (Safesearch, 2018). There is a significant lack of new talent presently entering the OHS profession (Safesearch, 2018).

Recognising the lack of a defined career path consistent with organisational role and education level, the SIA has formally adopted the role titles of OHS Practitioner and OHS Professional as outlined within the INSHPO OHS Global Capability Framework (INSHPO, 2017). The Global Framework acknowledges that there are range of roles in the workplace, but two clear categories exist:

- *OHS Professional*: who is usually university educated (or has attained a similar level of higher education), and

- *OHS Practitioner*: who is usually vocationally educated.

The OHS Professional is seen as a key advisor, strategist and pilot to the organization's leadership in fully integrating the management of OHS risk into sustainable business practice at all levels. The OHS Practitioner implements strategy, notably at site level, with an emphasis on state-of-the-art-compliance. While the two roles may overlap, role clarity is imperative in enabling organizations to improve their business and OHS performance (INSHPO, 2017, p.10.).

3.1.2. Defined knowledge and skill base

OHS is a transdisciplinary science, and OHS outcomes are an emergent property of work and the broader organisational system. Therefore, an important challenge for the OHS profession is how and where to define the boundary of the knowledge, and skill requirements for practicing OHS professionals. As organisations and their technology have become more complex the knowledge and skill base of OHS professionals has had to evolve considerably from its traditional origins of knowing about the individual physical hazards of work. However, as noted in Section 2 and Pryor (2019), there has historically been a lack of an agreed body of knowledge for OHS. The same OHS role can be performed by an OHS professional with a PhD, as one with no formal qualifications (Hale and Guldenmund, 2006). Similarly, the same role can be performed by an OHS professional with 30 years of experience, as one with no practical experience.

The Victorian OHS regulator (WorkSafe Victoria), recognised the growing gap between OHS regulation and OHS management in organisations and supported the creation of a formal alliance of the regulator, professional bodies, and educators, the Health and Safety Professionals Alliance (HaSPA). This alliance and the outcome activities were a turning point for the OHS profession in Australia. In 2008 the alliance developed a 'Code of Ethics and Minimum Service Standards' with a second edition in 2009 which was endorsed by all of the main OHS professional bodies in Australia. The minimum service standards called for certification of professional members of OHS associations "as a means of protecting employees, employers and other workplace health and safety stakeholders, and providing certainty to those engaging a professional member (HaSPA, 2009 p.7). To support the implementation of certification, WorkSafe Victoria then funded the OHS Body of Knowledge Project. This project had 3 deliverables: (1) to develop the OHS Body of knowledge; (2) to establish a structure and process for accreditation of OHS professional education; and (3) to establish a structure and process for certification of OHS professionals. The OHS Body of Knowledge was first published in 2012 and continues to be developed (Pryor, 2019).

As discussed in (Pryor, 2019), a defined body of knowledge has long been considered a core element of professionalization and a defined body of knowledge is fundamental to professionalization. The OHS Body of Knowledge framework was developed by a technical panel comprising OHS educators and representatives of the SIA with input from the broader OHS education community and OHS professionals. Individual chapters were written by those considered experts in their field. The OHS Body of Knowledge underpins the criteria for accreditation of OHS education and certification of OHS professionals in Australia. It also informed the development of the INSHPO Global Capability Framework (see Pryor, 2019 for a detailed description of the process for developing the OHS Body of Knowledge and the underlying principles).

3.1.3. Ethical code of practice

The OHS professional is responsible for supporting their organisations to create safe work environments for their workers, customers and members of the public as relevant. Given the very nature of this role, the decisions and action of OHS professionals can directly impact the health and safety of others, and therefore it is paramount that the OHS profession have an ethical code of practice owned and followed by the

Table 1
Individual professional criteria and the status of the OHS profession in Australia.

Section	Criteria	Met by the OHS profession
3.1.1	Role and career path	Partial (INSHPO role structure developed)
3.1.2	Defined knowledge and skill base	Yes (OHS BoK, INSPHO Framework)
3.1.3	Ethical code of practice	Partial (Established with no external recognition)
3.1.4	Professional status	Partial (Variable across organisations

profession. The SIA has had a published code of ethics since early in the establishment of the association. There is currently an established governance committee responsible for the maintenance of this code and the supporting complaints procedures, and for the investigation of reported concerns.

As mentioned in Section 3.1.2, the Health and Safety Professionals Alliance (HaSPA) developed the Code of Ethics and Minimum Service Standards for professional members of OHS professional associations. This code of ethics has two complimentary objectives to: support the continuing development of ethics and service standards for professional members of OHS associations, and provide guidance for OHS associations and their members on ethical and service standard issues (HaSPA, 2009). The HaSPA Code of Ethics built on the existing code of ethics for OHS professional bodies by adding service standards and an expanded reach across multiple associations.

The ethical practice of OHS professionals in Australia is not a central professional topic as it is for professions such as: engineering, accounting, medicine, and law. There are no regulatory requirements or mandatory frameworks to ensure that OHS professionals follow or comply with a code of ethics and no formal external mechanism for these to be enforced. This lack of formal enforcement is compounded by the lack of formal OHS education, which removes the opportunity to establish the foundations of ethical practice in education and training.

The SIA has recognised the need for greater knowledge and skill concerning 'the ethics of OHS practice' and in 2018 initiated the development of a new chapter in the OHS Body of Knowledge titled, 'The Ethical Professional'. The development of this chapter is a joint project between the SIA and the Board of Canadian Registered Safety Professionals (BCRSP). When complete, this chapter will provide practicing OHS professionals with an overview of professional ethics and its application to their role and will be accompanied by a training program delivered by the SIA.

3.1.4. Professional status

The professional status of OHS professionals within their organisations in Australia is highly variable. The core established professions of: finance, engineering, and law have a consistently high status across Australian workplaces. Additionally, business critical occupations, such as: sales, logistics, and information technology, also have an increasingly high status.

One way of determining the formal status of OHS professionals within organisation is to identify their structural position. It is not currently common practice within Australian organisations for the most senior OHS professional to report directly to the Chief Executive Officer or Managing Director (Safesearch, 2018). OHS professionals however have a large stakeholder group in organisations and due to the increasing importance placed on OHS across all industries they often have a high informal status. However, the absence of OHS professionals in Executive and Company Director roles in Australia indicates that the knowledge and skills of OHS professionals is not considered valuable or necessary for strategic decision-making or effective corporate governance.

Another way to understand the professional status of an occupation or profession is to analyse the extent of legal regulation surrounding the profession. The most common legislative requirement for registered professions is for their central registration with a professional board following attainment of minimum formal qualifications. In the case of OHS professionals, legal references or requirements for the OHS role in Australia have been largely non-existent. The exception has been in Victoria, where for the past 15 years there has been a general obligation on employers to "employ or engage people suitably qualified in OHS to advise you on employees' health and safety" (WorkSafe, 2004). Although this legislation falls short of specifying what 'suitably qualified' means, one clear way of employers meeting this obligation is to employ OHS professionals with tertiary qualifications or certified professional members of an OHS professional association.

Currently the Western Australian government is in the process of enacting changes to OHS legislation that will place a legal duty of care on "providers of OHS advice, service or products" (Ministerial Advisory Panel, 2018). It is expected that this duty of care will be broad and operate similarly to existing legal requirements for other professions, which through their mis-advice or malpractice can cause harm to others, e.g. law, finance, medicine, or engineering.

3.1.5. Summary

The individual professional criteria outlined above and in Table 1 demonstrates that the current status of the OHS profession in Australia does not meet the criteria in Section 3.1 for professional recognition. While the SIA have established and endorsed OHS role levels, activities and capabilities (knowledge and skill base) there is no uniform approach in practice across organisations and industries. The SIA has progressively established an OHS Body of Knowledge since 2012 and its relationship to university OHS education is in the formative stages (as discussed in Section 3.2.3). While the capability of the certified members of the SIA has been established, the capability of un-certified members and non-members is unknown. The SIA has an established code of ethics however this lacks an external implementation framework. The professional status of OHS professionals within organisations is hindered by their structural position, absence from key executive and governance roles, and a lack of legal regulation of the role and their professional obligations.

3.2. Collective professional criteria

3.2.1. Professional organisations

In Australia, the term OHS professional can be used to describe a broad cross-section of generalist and specialist positions. The introduction of the term 'Generalist OHS Professional' by the SIA helped to distinguish the general OHS professional roles in organisations from the specialist OHS related roles (i.e. occupational hygienist, ergonomist, safety engineer, occupational health practitioner, etc.). There are several professional membership-based organisations in Australia that support the practice and development of the OHS profession. These national organisations consist primarily of the: Safety Institute of Australia (SIA), Australian Institute of Occupational Hygienists (AIOH), Human Factors and Ergonomics Society of Australia (HFESA), Australian and New Zealand Society of Occupational Medicine (ANZSOM), and the Australian Faculty of Occupational and Environmental Medicine (AFOEM) (Pryor and Ruschena, 2012).

The SIA is the largest OHS professional association in Australia and had 4415 members as at the 31st October 2018 (Safety Institute of Australia, 2018). The SIA membership numbers for the past 20 years are
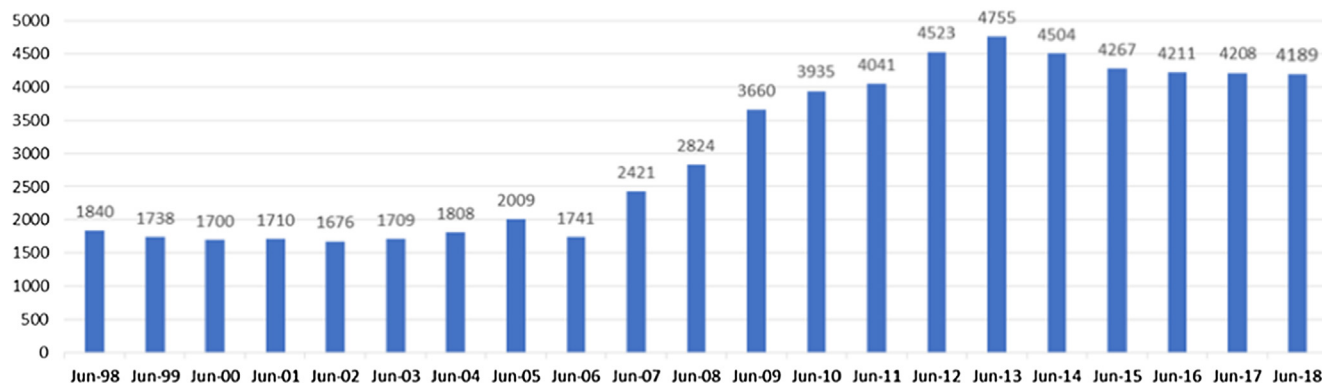
Fig. 1. SIA membership 1998–2018.

shown in Fig. 1.

The membership of the SIA more than doubled between 2006 and 2009 which coincided with economic expansion in the resources and infrastructure industry sectors during this period. Over more recent years the SIA membership numbers have plateaued and marginally declined. The reasons for this change in trend in membership numbers are complex with two factors being: (1) a reduction in the numbers employed in OHS roles post the mining and resources boom and a subsequent reduction in lower level professional memberships; and (2) the push for professional standards by the SIA and a subsequent reduction in members who did not meet the certification requirements and leaving the association.

3.2.2. Professional entry criteria

There are no legal professional entry criteria that create 'barriers to entry' for people to identify themselves as an OHS professional or to perform such roles within organisations. In 2015, the SIA introduced a 3-tiered voluntary certification structure for OHS practitioners and OHS professionals. The current three tiers of the SIA OHS professional certification program are: Certified OHS Practitioner, Certified OHS Professional, and Chartered OHS Professional (Safety Institute of Australia, 2017b). Table 2 shows the current numbers of certified OHS practitioners and professionals by tier of certification as at the 31st October 2018 (Safety Institute of Australia, 2018).

Whilst some progress has been made regarding the certification of OHS practitioners and professionals, the take-up of the voluntary certification scheme has been slow. There are only a few isolated examples of organisations formally adopting the certification requirements for all of their practicing OHS professionals. For this reason, OHS professional and practitioner certification is not something that industry in Australia presently is either aware of, or valuing. Without organisations (or regulation) recognising or requiring certified OHS Practitioners or Professionals then they themselves seem unwilling to go through the non-mandatory certification process.

We propose three reasons for practicing OHS professionals and practitioners to not go through the certification process: (1) they do not meet the criteria; (2) they meet the criteria but do not see the need to participate; or (3) they are not aware of the existence of a certification

Table 2

Number of certified OHS practitioners and OHS professionals (31st October 2018).

Category	Number
Certified OHS practitioner	363
Certified OHS professional	605
Certified chartered OHS professional	302
Total certified	1270
Total members	4415

Table 3

Annual number of certified OHS practitioners and OHS professionals 2015–2018.

Date	Number members	Number certified	Percentage
June 2015	4267	443	10%
June 2016	4211	1301	31%
June 2017	4208	1345	32%
June 2018	4189	1302	31%

process. Table 3 shows the annual number of certified OHS practitioners and professionals since the commencement of the current certification scheme in 2015 (Safety Institute of Australia, 2018).

The criteria and process for certification was developed to suit the Australian context and business culture. The emphasis is on knowledge, experience and demonstrated capability. Knowledge is assessed through qualifications held and/or an alternative assessment conducted by a university under license from the SIA. A time-period of experience is required where the candidate can demonstrate they have held a position at the level for which certification is being sought. Capability is determined through interview of referees, portfolio, practice and/or reflective reports and, in the case of the Chartered OHS Professional an interview of the applicant. The certification of OHS professionals in Australia is less mature than the equivalent scheme's in the UK (IOSH), USA (CSP) and Canada (CRSP). The Australian OHS professional certification scheme would benefit from learning from these established programs to increase industry exposure and professional certification rates.

3.2.3. Professional education

OHS university degree programs increased significantly during the 1990's before retracting in numbers more recently. The SIA established the 'Australian OHS Education and Accreditation Board' (AOHSEAB) in 2011 and the first university level OHS qualifications were accredited in 2012 (Pryor, 2015). By 2018 there were 12 universities with one or more accredited qualifications for a total of 27 accredited programs (Australian OHS Education Accreditation Board, 2018). OHS education accreditation aims to ensure that graduates holding accredited OHS qualifications are capable entry-level OHS professionals. Such professionals should be able to: take effective and appropriate action; explain and justify their actions; and work effectively with others to influence and develop the OHS capability of others (Pryor, 2015, p.8).

OHS education is also provided through the vocational education system (VET) in Australia. VET qualifications in OHS span across Certificate III and IV through Diploma and Advanced Diploma. While Certificate III addresses general OHS training for the workplace, Certificate IV, Diploma and Advanced Diploma align with the INSHPO Practitioner Level 1, 2 and 3 respectively. The Diploma is the entry qualification for the SIA Certified OHS Practitioner. The Australian VET

Table 4
The percentage of OHS practitioner and OHS professional roles in Australia with levels of highest safety qualification attained.

Role	University programs			VET programs		No formal quals. (%)
	Masters (%)	Postgraduate diploma/certificate (%)	Degree (%)	Diploma/Advanced diploma (%)	Certificate III or IV (%)	
OHS officer	2	7	15	59	15	2
OHS advisor/coordinator	2	13	27	35	21	2
OHS manager	13	27	14	39	4	4
National manger OHS	19	35	9	29	3	5
General manager OHS	24	30	8	30	0	8

system generally has been plagued with quality issues as a result of the commercialisation of the delivery of accredited programs by Registered Training Organisations (RTO's). There are many instances where programs are delivered in a short-course format, where students have not been provided with or attained sufficient competency yet have been awarded the qualification and the OHS qualifications have not been isolated from these issues (Australian Government, 2017; Australian Skill Quality Authority, 2017). As a result, a review of the VET OHS qualifications occurred in 2017–18, and at the time of writing, the impact of the review findings on the quality and content was not clear.

Analysis of the data from the 2018 Safesearch OHS professional survey shows that 54% of managers, 63% of National OHS Managers and 62% of General Managers have university level safety qualifications with VET qualifications most prevalent for the Officer and Advisor/Coordinator roles. (Safesearch, 2018) (Table 4). The continuing profile for VET Diploma and Advanced Diploma in senior positions is thought to be a legacy associated with older people entering the OHS profession or gaining their OHS qualifications before the expansion of university qualifications in OHS.

While the tertiary education accreditation scheme has assisted the development of OHS professional university education, further development and expansion of these programs requires increased enrolments driven by industry demand for tertiary qualified OHS professionals.

3.2.4. Summary

The collective professional criteria outlined above and in Table 5 demonstrates that the current status of the OHS profession in Australia does not meet the criteria in Section 3.2 for professional recognition. Although Australia has well established professional organisations for both generalist and specialist OHS professionals, a low percentage of OHS professionals are members. The SIA has the largest membership base however the best estimates suggest that somewhere between 10 and 20% of practicing OHS professional and practitioners are members. This estimate was performed by amalgamating the responses to the Australian Bureau of Statistics (ABS) country census data across various job titles that could be considered to constitute to scope of the OHS profession (there is no individual job classification of OHS professional in the country census). This estimated resulted in a range of 20,000–40,000 depending on how scope boundaries were drawn around job classifications.

There are no Australian legal professional entry criteria for obtaining a role as an OHS professional, nor for organisations to appoint a person to a role. This lack of a barrier to entry for the profession reduces the membership of the professional associations, as well as enrolments

Table 5
Collective Professional criteria and the status of the OHS profession in Australia.

Section	Criteria	Met by the OHS profession
3.2.1	Professional organisations	Yes (10–30% membership rate)
3.2.2	Professional entry criteria	No (Criteria established but no barriers to entry)
3.2.3	Professional education	Yes (Tertiary and VET programs available)

in tertiary OHS education programs. The SIA has developed and implemented a voluntary certification criterion. Based on the above estimates of the size of the profession in Australia, approximately 2–5% of practicing professionals and practitioners are currently certified. There are only a handful of isolated examples in Australia of organisations adopted the SIA OHS certification scheme requirements for some of their OHS professional roles.

There are 27 accredited OHS tertiary programs offered by Australian Universities that align with the OHS Body of Knowledge and the INSHPO OHS Capability Framework. Safesearch data suggests that approximately 60% of respondents hold OHS qualifications appropriate to their current role as an OHS professional or OHS practitioner.

3.3. External environmental criteria

3.3.1. Requirements for the OHS profession

There are currently no mandatory legal requirements for organisations in Australia to employ OHS professionals, with the exception of the general duty on employers in Victoria to "employ or engage suitably qualified OHS advice" (WorkSafe, 2004). There are no legal requirements regarding the licencing and registration of OHS professionals. And there are no specific due diligence requirements for Company Directors to engage independent qualified advice and for organisations to be subject to independent auditing of safety.

Following a major incident in 2017, Queensland re-introduced the five-day Safety Officer training and licencing program. Rather than make the requirement mandatory for workplaces above a threshold number of employees, as they had done previously, it is voluntary however considered permissible legal evidence of the organisation acting to identify and manage safety risks should they have an incident and be the subject of legal enforcement action. In this respect, the legal system for health and safety in Australia is not working in support of professionalising the OHS role in organisations when it considers appropriate professional advice can be provided with five days of training.

3.3.2. Other professions and stakeholders

The OHS profession has a large and diverse group of stakeholders that have an active interest in the practice and the development of the profession. These stakeholders include: OHS specialist professions, other related professions, workers and their representatives, organisational management, and OHS regulatory inspectors.

The role and activities of the generalist OHS professional overlaps with a number of OHS specialist professions, for example: ergonomists, occupational hygienists, safety engineers, psychologists, and allied health professionals, etc. Within Australian organisations it is not common for generalist OHS professionals to have appropriate demarcation between roles that they are competent to perform, and specialist OHS professions that should be called upon to provide independent competent advice. As a result, there can be tension between the distinct types of OHS professionals within organisations.

Increasingly, other related professions within organisations have overlapping responsibilities with the OHS profession, for example: human resources professionals and the issues associated with training, culture, and more recently mental health and personal wellbeing,

sustainability professionals and the issues associated with corporate social responsibility, and risk professionals and the issues associated with the identification and management of operational risks, etc.

Workers and their representatives have had a significant impact on workplace health and safety within Australian organisations for the past 30 years. More recently however, the role of trade unions is diminishing in Australian workplaces as is their involvement in health and safety and the role of OHS professionals (Stewart-Crompton et al., 2008). However, within some industries, for example government rail organisations, the OHS professional role continues to be prescribed and protected by industrial instruments such as enterprise bargaining agreements and therefore the trade unions can influence the role of the OHS professional considerably.

The most influential stakeholder in the role of OHS professional is the line management of their organisation (Provan et al., 2017). Over the past 20 years in Australia the role of OHS professionals has evolved from being a frontline focussed compliance role of 'safety officer', to being exclusively the management advisory and support role of 'safety business partner' (Provan et al., under review). This close relationship between the OHS professional and line management is necessary for safety and health to be managed within an organisation, but it can easily become dysfunctional and a hinderance to safety (Hale, 1995; Pryor, 2014; Provan et al., 2017).

Work health and safety legislation and the state, federal and industry regulatory authorities heavily influence the role of OHS professionals. Compliance has become an increasingly critical business priority for Australian organisations and therefore OHS professionals spend considerable time working on compliance related activates and liaising with government safety regulators.

3.3.3. Societal recognition

The OHS professional status within Australian society more broadly can be considered low. There is a low level of general knowledge or awareness of the role as an established professional group, and most Australian's would have limited experience of the OHS professional role. The general community perception in Australia of the OHS professional role can be considered to be negative. The role is often viewed as 'trivial', 'bureaucratic', and 'disconnected from reality' (Callahan, 2007; Douglas, 2010). The parts of society that do recognise the OHS profession commonly refer to them collectively as the 'fun police' due to the propensity of OHS professionals to implement and monitor seemingly unnecessary rules and procedures.

The OHS profession is generally absent from mainstream media in Australia, yet when the role is reported on in response to a major safety accident the report will typically discuss: their incompetence, their advice that something was safe when in hindsight it clearly wasn't, and their lack of formal training (e.g. The Guardian, 2018) Another indicator of the status of the OHS profession within society is the lack of school leaver interest in studying OHS to the extent that there are only four undergraduate university programs in Australia (2 programs in Queensland, 2 in Western Australia). Tertiary OHS education is now almost exclusively at the post-graduate level with mature-age students seeking to establish an OHS career following adult experience in another profession or occupation (Pryor, 2015; Safesearch, 2018). As a result of the variable status and earlier mentioned small size of the OHS profession in Australia, they lack voice when it comes to both national matters of safety regulation, and the ability to influence key decisions within their organisations (Pryor, 2014).

3.3.4. Summary

The external professional criteria outlined above and in Table 6 demonstrates that the current status of the OHS profession in Australia does not meet the criteria in Section 3.3 for professional recognition. There are no legal requirements for organisations to employ OHS roles in their organisations, nor any legal requirements for OHS professionals and practitioners to be licenced and registered. The OHS profession has

a broad and diverse group of stakeholders that all understand and interface with the profession. Role boundaries between OHS professional and practitioners and other organisational functions and line managers are not well defined. The OHS profession in Australia has a low level of societal recognition. Those that do recognise the OHS profession, often view the role as trivial, bureaucratic and disconnected from reality given the rules and symbols they experience for safety within their organisations and communities.

4. Discussion

The OHS professional role is well established within corporate Australia and the SIA has made significant progress in the establishment of key programs of work, including: an OHS body of knowledge, education accreditation, and professional certification. However, despite these advances, Section 3 demonstrated that the OHS profession cannot be considered an established profession in Australia when applying a consistent professional criterion. There are a number of current and future challenges facing the OHS profession in establishing itself as a valuable core profession within Australian organisations.

Based on the current status of the OHS profession described in Section 3, we identify three key challenges, or opportunities facing the profession.

4.1. Role definition

There is an implicit assumption that there is a shared understanding of the role and tasks that OHS professionals should be performing within organisations. The current status of the OHS profession suggests that there is an extremely variable role performance, role title, role reporting structures, tasks and activities (Borys et al., 2006; Provan et al., 2017). This may be contributing to the lack of organisational and societal understanding of the role and therefore the level of support received, and value placed upon it. It's difficult to engage with something that is not well understood. In comparison with other organisational professions, for example: engineering, law, finance and information technology, the OHS professional role is highly variable. The OHS profession in Australia requires a common terminology and recognized standards of practice.

A profession requires common terminology to describe its role and its contribution to the organisation. The clearer and more consistent this terminology and its communication to stakeholders, the higher the level of understanding and the level of support provided by key stakeholders. This is made even more important by the fact that society is rarely exposed to or involved with the OHS profession due to its absence from everyday life and from many small and medium organisations. Even in large organisations, many roles will not interface frequently with the OHS professional.

Alongside the common terminology described above, the OHS profession requires a clear, consistent and shared, proactive vision for itself, that we can work towards with the support of others. This vision, or role clarity should further describe the role, objectives, functions and core tasks of OHS professionals. This is necessary to help organisations and line managers understand the way that the OHS professional role can be performed most effectively within organisations to contribute to OHS risk reduction. It will prevent OHS professionals and their organisations from creating safety clutter, defined as safety work tasks that do not contribute to operational safety (Rae et al., 2018; Rae and Provan, 2019).

Common terminology and standards of practice developed by the OHS profession, for the OHS profession, can provide the role clarification necessary to prevent the current schizophrenic reactive activities that plague the OHS profession (Borys et al., 2006; Pryor, 2010; Provan et al., 2017). Currently the OHS profession is unable to articulate a common or compelling role, purpose and value contribution to organisations (Borys, 2015; Provan et al., 2017).

Table 6

External Professional criteria and the status of the OHS profession in Australia.

Section	Criteria	Met by the OHS profession
3.3.1	Legal requirements	No (Limited legislative references)
3.3.2	Other professions and stakeholders	Yes (Needs further definition)
3.3.3	Societal recognition	Partial (Low status and recognition)

4.2. Regulatory requirements

There are a number of challenges and opportunities that may only be addressed through regulation. Although regulation is a blunt instrument of compliance, the progress in the past 5 years in Australia has shown that voluntary adoption of developments in the OHS profession has minimal impact. We have seen throughout the history of the development of the profession in Australia that the biggest drivers of the evolution of the OHS profession are regulatory change and economic cycles. The current legal framework and requirements within Australia concerning the OHS profession do not encourage, require or provide a structure for the profession. Organisations require suitably qualified and available OHS advice to understand and manage the health and safety risks faced by their workers, and regulation has a central role to play in creating the framework and requirements for this to occur.

The OHS profession requires two significant regulatory changes to dramatically improve its reach and effectiveness. The first needs to enable the OHS profession to engage with small-medium enterprise to make itself available to all workplaces, and the second needs to create barriers to entry for the OHS profession to consistently increase its capability and performance.

There is currently no requirement for organisations involved in small business to engage with or seek the advice of a competent OHS professional. Currently 4.7 million Australians, or 44% of the workforce are employed in small businesses (< 20 employees) (Gilfillian, 2015) and the overwhelming majority would not have any involvement with an OHS professional. This is different to the legal and the finance profession, for which there are regulatory requirements relating to business transactions and reporting. Different to the OHS profession however, is that individuals and society need these professions in their everyday life, not only situated within organisations. The OHS profession does it's work in organisations and therefore there must be a mechanism to support all organisations and all workers in Australia. The OHS profession in Australia does not offer a scalable solution for small and medium enterprise which is where increasingly the majority of employees work (Stewart-Crompton et al., 2008). The broad negative perception of OHS professionals in society is exacerbated because few people interact frequently in their daily lives with competent OHS professionals.

There are currently no legal requirements concerning the competency and certification requirements of OHS professionals. And therefore, there are no barriers to entry into the OHS profession in place within industries and organisations. This results in a wide variability and performance of OHS professionals within organisations. Similar to the role titles of accountant and lawyer, the OHS profession needs to reserve a role title with legislatively prescribed minimum competency requirements. This will create a knowledge and skill base differentiation within the OHS profession that overtime should lead to a raising of the competency within organisations. Health and safety legislation is a strong incentive for industry to change its approach to defining and staffing its OHS professional roles.

4.3. Education

The OHS education model focusing on entry-level postgraduate qualifications (especially the graduate diploma which is only 1-year equivalent full time) does not allow for development of professional level technical knowledge and skills together with the broader professional skills essential for a 'capable' OHS professional. The deficiencies of this education model can be identified by comparing OHS with the education models underpinning other professions such as law and engineering. Professional education in these professions is usually a 3- or 4-year undergraduate degree incorporating supervised work practicums followed by a graduate year where the new professional is mentored to develop as a fully rounded professional. Neither work practicums nor graduate programs feature in the development of most OHS professions.[1]

There is a need to critically review the education model for OHS professional education in Australia including structure, duration and relationship with other disciplines. Notwithstanding the absence of formal mandatory education requirements for OHS professionals, there is a general belief among OHS professionals and industry that the existing university curriculums do not provide an adequate foundation for OHS professional practice (Provan et al., 2018). In addition to the development of professional technical knowledge and skills, university level OHS education in Australia needs to consider the enhanced general management and soft skill capabilities required by OHS professionals. The importance of supervised practicums or internships in the development of the professional identity of OHS students, and the challenges of some education modalities such as online learning in the development of required non-technical skills have been recently identified through research (Madigan et al., 2019). Another challenge for university level OHS education programs is the need for high-quality educators with both academic and professional practice backgrounds, which is anecdotally increasingly hard for Australian Universities to attract due to both the lack of doctoral qualified and experienced OHS professionals, and the remuneration differential between academia and industry OHS roles.

Having consistent, high quality university OHS professional education across Australia, coupled with mandatory qualifications, provides the opportunity to create a profession-wide foundation of: technical skills, non-technical skills and the ethics of practice. University education provides the knowledge for OHS professionals to perform their role and provide advice consistent with the principles of evidence-based practice, which research suggests is currently missing from OHS professional practice (Provan et al., under review).

5. Conclusion

The OHS profession in Australia has made considerable progress towards establishing itself as a profession within contemporary organisations. The professionalisation strategy implemented by the SIA over the past 5 years has established an: OHS body of knowledge, professional certification structure, and a university education accreditation program. The OHS profession can be considered an 'emerging profession', it however faces significant challenges in building on recent developments to address the gaps identified in this paper.

The individual professional criteria surrounding role and career path and professional status are currently wildly variable across industries and organisations. The external professional criteria are equally variable with the OHS profession having a low societal

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[1] With the exception of those OHS professionals educated through an undergraduate degree.

awareness, and a largely negative perception within Australian society. As a result, the consolidation and expansion of the current OHS professional structures implemented in Australia requires the joint effort of government, universities, industry, professional associations and the OHS professionals themselves. Governments need to legislate the obligations, licencing and barriers to entry for the profession. Universities need to establish a consistent nationwide tertiary education curriculum in partnership with the OHS Body of Knowledge. Industry needs to promote the professionalisation of OHS through demanding the certification of their professionals. The professional associations and OHS professionals themselves need to enhance their professional reputation through the effective performance of their role within their organisations and society more broadly.

Based on the development and the current status of the OHS profession in Australia, the immediate challenges are: creating cross industry role definition, enhancing the regulatory requirements to improve the capability and reach of the profession, and reviewing the structure and core learning outcomes of university-level OHS education.

Appendix A. Supplementary material

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ssci.2019.04.036.

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