Abstract
This case study presents the extent of transformation that Open Educational Practices (OEP) have brought to higher education in Australia. In the early stages of the transformation, open access policies, funding, support and infrastructure were introduced by the national government. Initiatives that uncovered the transformative potential of OEP were then undertaken. The scope of transformation of OEP in Australia has since expanded, influencing and impacting institutions in several aspects, leading the sector to a better position worldwide. However, many challenges still remain. Restrictive copyright regimes and a lack of national and institutional policies and funding are among the barriers faced by OEP in Australia. If these barriers are removed and policy enablers are further developed, the higher education sector in Australia could fully benefit from the transformative potential of OEP.

Introduction
Openness has already transformed education at all levels around the world. In higher education more specifically, it has benefited learners and educators and influenced the way universities’ senior executives approach institutional strategic plans and policies.

Openness has affected nation-wide research policy and funding. It has shaken established university business models and influenced the development of new ones. It has brought national leaders together to discuss how the wealthier nations could assist the less advantaged ones to increase access to free and open education. As Weller (2014) poignantly states, “Openness affects all aspects of higher education” (p. 2). However, it has not yet won all battles to reach mainstream education.
Openness itself has gone through transformations as the “open” movement evolved to respond to the needs of different technologies, groups and communities. Particularly in education, where the concepts of openness and sharing have long existed, the principles of “open” were adopted by open universities almost a century ago to represent “learning ‘anywhere, anytime’ and open entry and exit points, which were the foundations of open universities and their correspondence and distance education models” (James & Bossu, 2014, p. 81).

Currently, there is a wide range of open approaches and movements to open up education. These approaches include open access (research and data), open learning design, open policies, Open Educational Resources (OER), Open Educational Practices (OEP) and, more recently, Massive Open Online Courses (MOOCs) (Butcher & Hoosen, 2014).

This chapter focuses primarily on OEP in higher education in Australia. According to the Open Education Quality Initiative (2011, p. 12):

“OEP are defined as practices which support the (re)use and production of OER through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning path. OEP address the whole OER governance community: policymakers, managers/administrators of organisations, educational professionals and learners.”

Higher education in Australia is a relatively small sector compared with that in some other developed countries: it is made up of 40 full universities and about 130 other higher education providers. However, it plays an important role in the Australian economy, with revenues exceeding AUD 27 billion in 2013 (Norton & Cherastidtham, 2014). As in other higher education sectors worldwide, the Australian sector is expanding. There are about 1.3 million students currently enrolled in the higher education sector across a whole range of degrees, including postgraduate degrees, diplomas, certificates and bachelor degrees. This number also includes on- and off-campus1 domestic and international students (Norton & Cherastidtham, 2014).

Nevertheless, formal higher education still does not reach all students wanting to pursue it — those who live in rural and remote areas and those from low socio-economic backgrounds, including indigenous people (Bossu, Bull, & Brown, 2012). Another issue affecting participation in higher education in Australia is the high cost of tuition fees, as Australian higher education has one of the top three most expensive tuition fees in the world on average, according to the Education Indicators in Focus published by the Organisation for Economic Co-operation and Development (OECD) in 2012 (OECD, 2012). OEP is one of the solutions not only for those excluded from formal education in Australia, but also for those wanting to pursue additional professional development and for lifelong learners.

This case study presents the extent of the transformation that OEP has brought to higher education in Australia. It starts with the early stages of transformation, where open access policies, funding, support and infrastructure were introduced by the Australian government, which followed an international trend. It then

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1 In Australia, off-campus students are those enrolled and studying via distance education or blended mode.
presents some initiatives that uncovered the transformative potential of open education. The scope of transformation is then discussed, followed by some final considerations.

**OEP in Australia: The Early Stages of Transformation**

In Australia, OEP started around 1998, when some of the first open access initiatives were introduced and supported by the Australian government (Picasso & Phelan, 2014). But it was in 2002 that the open access movement had a substantial boost due to a programme funded by the Australian government called “Backing Australia’s Ability” (Shipp, 2006, p. 170). This programme was aimed broadly at promoting excellence in research, science and technology, but several initiatives attached to this programme played important roles in the progress of open access in Australia. They assisted in: raising awareness about open access; building research information infrastructure, including university repositories of open data, thesis and other digital objects; establishing metadata standards to improve access and discoverability of research information; and developing related guidelines (Shipp, 2006).

For several reasons, including lack of funding or simply the completion of such initiatives, none of these initiatives are currently active. Instead, other initiatives were created, so that open access continued evolving and progressing in Australia. In 2008, the Australian National Data Service (ANDS) was created and it is currently “the major government funded initiative to provide the infrastructure necessary to support an open data environment” (Picasso & Phelan, 2014, p. 128). ANDS is a large database containing research resources from educational and research institutions in Australia. One of the aims of ANDS is to create an Australian Research Data Commons, where research information can be easily accessible to all (Australian National Data Service, 2014).

In addition, the Australian government and its agencies have also engaged with open access mostly through three different initiatives:

- **Australian Government Policy on Open Source Software** – This initiative also includes the Guide to Open Source Software for Australian Government Agencies. Together these aim to encourage government agencies specifically, and the wider community in general, to consider open source software options as an alternative to proprietary ones (Commonwealth of Australia, 2011b).

- **Government 2.0** – This initiative is not only about making government documents available to the public under an open licence, but, according to the government, represents government support for openness through informing and engaging the public to work in collaboration with the government in a diverse range of activities, using social media, crowd sourcing and other forms of collaboration (Commonwealth of Australia, 2011a).

- **Australian Government Open Access and Licensing Framework (AusGOAL)** – This is essentially a “copyright management framework” with the aim to support and facilitate open access of government and related sectors publicly funded information (AusGOAL, 2011).
Although the government-focused initiatives noted above are not directly related to opening up Australian education, they certainly demonstrate the government’s commitment to transparency, sharing of information, and open access to publicly funded resources. This commitment is also a strong example for other publicly funded organisations, such as higher education institutions, to follow.

Today, most Australian universities have an open access repository where thesis, research data and outputs from government-funded projects and initiatives are made available, typically using open licences, including Creative Commons licences, for other researchers to use and re-use (Picasso & Phelan, 2014). In addition, major research-funding bodies have also responded positively to the government position on open access and have encouraged these practices through their own regulations (Picasso & Phelan, 2014).

These developments at the national level have certainly advanced open access in Australia. The initiatives are also on par with open access developments taking place in other regions around the world, for example, in the UK, the U.S., Canada and some European countries. However, they are mostly concentrated on government agencies, as well as related to research data and outputs, and not focused on opening up education through openly licensed educational resources and practices.

In fact, at the time of this writing, Australia does not have a specific programme, framework, policy or regulation of any form that supports the adoption of OER and practices in higher education (Bossu, Brown, & Bull, 2011, 2014a; Bossu et al., 2012).

Despite this reality, there were some early OER-related developments in higher education in Australia, most of which were small and institutional-based projects. Later on, a few projects were then funded by the Australian government Office for Learning and Teaching, which is the main funding body for learning and teaching in higher education in Australia (see Bossu et al., 2014a, for a list of previous OER-related projects). The Office for Learning and Teaching, as with other major Australian funding bodies, also requires that all resources produced during the life of the projects be licensed as Creative Commons Attribution-ShareAlike (CC BY-SA). Current projects investigating OEP and OER in Australia and their impact on assisting the transformation in higher education are discussed later in this chapter.

It is important to highlight that the adoption of open content in Australia was first initiated by both the Vocational Education and Training (VET) and schools sectors more than a decade ago (Browne, 2009). There were several initiatives supported by national and state governments, but recent reforms in the VET and schools sectors meant that most of these initiatives are now discontinued or were completed. Even though Browne (2009) argues that past and present initiatives at VET and school levels do not qualify as open education but as “free for education,” these initiatives played fundamental roles in the progress of the use of open content in Australian education.

**Transformation of OEP Realised in Australia**

Although the opportunities and benefits of OEP have been realised by the Australian government through investments in open access and by the VET and schools sectors, it was only in 2010 — almost 10 years after the movement emerged
in other parts of the world (i.e., the MIT OpenCourseWare Consortium in 2001) — that it started getting more popular in higher education.

It was during this period that the Office for Learning and Teaching funded a two-year research project, which resulted in the report *Adoption, Use and Management of Open Educational Resources in Australia Higher Education* (Bossu et al., 2014a). This was an important project for the progress of OER in Australia because it represented the recognition by the Australian government that investigation in this new and underexplored field needed to be conducted in Australia. It was also a great opportunity for the researchers involved in this project to uncover the state of play about OER across the country (Bossu et al., 2014a).

One of the main deliverables of this project was the “Feasibility Protocol for OER and OEP” (Bossu, Brown, & Bull, 2014b), which is a set of guiding principles that prompts questions and raises issues to be considered by educational institutions wishing to experiment with OER and OEP. The protocol attempts to assist higher education leaders to make informed decisions about the adoption of OER and OEP at several levels within the institution, from management to individuals, including academics and students (Bossu et al., 2014b). The Feasibility Protocol addresses four topics: the *opportunities* that OER and OEP could bring to institutions and broader society; the *challenges* associated with OER and OEP adoption; considerations surrounding the institutions’ *strategic directions* for an effective adoption of OER and OEP; and *policy recommendations* for higher education institutions in Australia (Bossu et al., 2014b).

This project also revealed that most respondents were aware of the OER movement, and rated their knowledge of OER as intermediate. However, the majority of participants had either rarely or never used OER. For those who had used OER, learning objects were the most preferred type. Encouragingly, a large number of participants stated that they would like to be more involved in OER activities. One reason participants were not engaged with OER could have been the lack of institutional strategies and policies to support OER projects and initiatives at that time (Bossu et al., 2014a).

Another contribution of the two-year research project in helping the sector realise the opportunities of OER for higher education in Australia was the organisation of the first National Symposium on OER, held in August 2012 in Sydney. A range of stakeholders representing 21 national and international institutions (including higher educational institutions, VET and government bodies) attended the symposium. The symposium was a key dissemination strategy for this project, and a chance for the stakeholders to meet and discuss issues related to open education, opportunities for collaboration, and ways to together overcome some of these concerns (Bossu et al., 2014a).

An outcome of the project was also the realisation that much more needs to be done for Australia to fully benefit from OER and OEP. Several new initiatives have thus emerged, including those with national and international institutions. Some of these initiatives are externally funded, some are internally funded, and still others have not received any funding but are progressing nonetheless. A range of these OEP initiatives is discussed in the next section.
Scope of Transformation of OEP in Australia

The scope of the transformation of OEP in Australia is best understood by looking at the main initiatives, programmes and activities categorised into five themes: collaboration; resources and infrastructure; open policies; learning and teaching; and research. This is by no means an exhaustive list of activities being undertaken in Australia, but it is a useful way to assess the contemporary context.

- **Collaboration** – Australian higher education is very competitive. Institutions compete for students, for government funding and for rankings. Interestingly, some Australian open-education advocates have realised that one of the key strategies to succeed in open education is to collaborate with others. Collaboration amongst institutions and countries has already been recognised as one of the opportunities of the transformative potential of open education (Commonwealth of Learning, 2011).

  An example of this collaboration is the OERu, which is a consortium of currently 39 international educational institution partners, spread across five continents. In Australia, six universities are part of this network: University of Canberra, University of Southern Queensland, University of Wollongong, Charles Sturt University, Curtin University and the University of Tasmania. The OERu’s vision is to make education accessible to everyone. Co-ordinated by the OER Foundation, it is an independent, not-for-profit network that offers free online courses for students worldwide. It also provides affordable ways for learners to gain academic credit towards qualifications from recognised institutions (McGreal, Mackintosh, & Taylor, 2013).

  Other examples of collaboration between Australian and international institutions are presented in the later sections of this case study.

- **Resources and infrastructure** – Several Australian universities have decided to invest in resource production and in the development and improvement of technological infrastructure. Examples of resource production are initiatives such as MOOCs. Following the international trend, a number of Australian universities have joined the major MOOC providers, including edX, Coursera and the British FutureLearn, while others have developed their own MOOCs (Norton & Cherastidtham, 2014). Currently, more than 100 Australian MOOCs are on offer.²

  These are mostly free online courses and are likely to approach learning and teaching more traditionally (xMOOCs) instead of being truly open and adopting open pedagogies and open learning ecosystems (including cMOOCs) (James & Bossu, 2014; Smyth, Bossu, & Stagg, 2015). In Australia, only a few MOOCs have been developed with some open aspects. For instance, the content might be openly licensed, but the learning management system (LMS) where the courses are hosted is a proprietary system and requires learners to register. Some institutions are still investing in this space, but the initial hype about MOOCs seems to have faded to some extent in Australia (Norton & Cherastidtham, 2014).

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² [https://www.mooc-list.com/countrys/australia](https://www.mooc-list.com/countrys/australia)
Another example of investment in resource production is the open textbook initiative at the University of Southern Queensland. This initiative is the first of its kind in Australia, and it is for university staff only. At this stage, the university is planning to fund four Open Textbook Projects. Proposals were submitted by academic staff and their teams, with the launch expected by early 2016.³

A few other universities have decided to invest in infrastructure for OEP. For instance, some are developing their own open repositories, so they can make digital resources (including MOOC resources) available to teachers and learners within their institutions first and, in some cases, then to users worldwide. Most universities in Australia are expected to have open access repositories for government-funded research data and outputs, even though they do not have repositories for digital learning resources for openly licensed content (Bossu et al., 2014a). Lack of government and institutional incentives may be the reason for this, as most Australian universities only received funding from the government to set up open access repositories to store and maintain theses, research outputs and data from government-funded projects — not digital learning resources.

However, a small number of universities have developed their open Learning Object Repository (LOR), mostly with the intention of supporting learning and teaching within their institutions. Others have projects under development, as is the case at the University of Tasmania (UTAS) through the Sharing Learning Resources Project. This project has been internally funded and aims to establish a staff culture of sharing learning resources through the use of a UTAS LOR. This is a short project (September 2014 through to December 2015), but has set ambitious outcomes. The project team believes that if a culture of sharing is nurtured and established, academics will realise the opportunities and benefits of having their resources openly licensed and available to all, not only within the university but to all learners nationally and internationally (Padgett, Bossu, & Warren, 2014) — as “OER have tremendous potential to improve the quality, accessibility, and effectiveness of education, while serving to restore a core function of education: sharing knowledge” (Butcher & Hoosen, 2014, p. 18). In addition, this project is exploring and developing a process for peer review of learning resources, which is built into the workflow of the LOR.

**Open policies** — Encouraged by recent OEP initiatives taking place nationally and internationally, some Australian universities have realised that they need to review and, as needed, further develop their related policies in order to enable innovation and maintain a competitive edge. According to Scott (2014), intellectual property policies are currently under review at several Australian universities. Other universities have encouraged the adoption of OEP through supporting documentation, such as university strategic plans and teaching performance reviews. An example of such a development is the Technology Enhanced Learning and Teaching White Paper 2014–2018, developed by the Tasmanian Institute of Learning and Teaching at the University of Tasmania (Brown et al., 2013).

That White Paper marked the start of the conceptualisation and dialogue on how the university might start incorporating and implementing open education within its mainstream activities. This was the first of a series of documents that recognised the university’s willingness to engage in open education. Other documents include the UTAS Curriculum Principles, in which “Embracing Open Educational Practices” is the 10th curriculum principle, and the five-year divisional plan of the Deputy Vice-Chancellor Students and Education, where staff are encouraged to take up open education. Perhaps one of the most important policy developments at the University of Tasmania is that staff engagement with OEP (including using and creating a range of learning resources such as MOOCs and OER) can now be formally recognised in the university’s Teaching Performance Expectations.

Some universities in Australia are not waiting for government intervention and support. Instead, they are taking OEP seriously and are working to develop and review their institutional policies. Even so, the Office for Learning and Teaching has funded an initiative that aims to prepare a National Policy Roadmap. This document will be informed by a range of national and international evidenced-based case studies related to OEP projects and initiatives.

It is hoped that the outcomes of this project will help the government realise the full potential of open education to transform Australian higher education, opening up opportunities for further national policy development and support in which open education can flourish.

- **Learning and teaching** – As can be seen, the scope of the transformation of OEP in higher education in Australia has been broad, and has reached several institutional arenas. One could argue that these are not isolated areas; they overlap and influence each other. For example, an institutional policy that awards and recognises staff for the creation of OER could increase resource production, and over time, establish an active culture of sharing and so transform learning and teaching in a particular institution.

Although it could be assumed that the examples above might all impact learning and teaching, there are some programmes specifically targeting learning and teaching for OEP. Most universities experimenting with OEP in Australia have some form of academic development activities to build internal capacity. These activities are in the form of workshops, webinars, one-on-one consultancies and online resources produced by the institutions or adopted/adapted from elsewhere. The target audience is most commonly professional and academic staff interested in innovating and learning about OEP.

Also, a few Australian universities have invested time and resources to provide a slightly more structured way to build capacity, not only within their institution but for learners worldwide, through free and open short,
or micro, courses. One example\(^8\) is the “Curriculum Design for Open Education,” which is an open and online professional development micro-course focused on developing the capacity of academics to adopt OEP as the basis for innovative, engaging and agile curricula.

Developed by the University of Tasmania in partnership with the University of Southern Queensland, this is a five-week micro-course (about 20 hours of study). Depending on the pathways that learners take during the course of study, it may lead to “micro-credentials,” which recognise learning on a smaller scale than do traditional university courses (Bossu & Fountain, 2015). Another example is the “Repurposing Open Educational Resources: An Introduction” micro-course developed by the University of Southern Queensland. This micro-course covers concepts such as the locating and evaluating of OER, the potential use of OER, and application of Creative Commons licences.

There have also been attempts to capture learners’ engagement with OEP, particularly open content, across a number of Australian universities. The interest in investigating the impact of OEP on students’ learning outcomes seems to be an important trend in the field of OEP (Butcher & Hoosen, 2014). In Australia, however, one strategy being applied is the use of student end-of-year surveys to tease out students’ motivations and preferences for alternative sources and resources to complement their learning. These surveys also try to investigate students’ awareness of OEP. Findings from the surveys are not yet publicly available. However, anecdotal evidence suggests that students might be engaging with open content without knowing it (because of lack of knowledge about open content and the licences, and lack of guidance from their lecturers, who also might not be aware of such content).

The activities discussed in this section are relatively new strategies used by Australian universities as an attempt to raise awareness and to engage academic staff in OEP activities. Unfortunately, there is no evidence yet of the impact of these strategies on learning and teaching using OEP in Australia universities. Similarly, there is little evidence of the integration of OER and OEP into courses and course materials, and of the types of OER being created, shared and re-used by institutions, academics and learners.

- **Research** – Research in OEP has been conducted as part of some of the projects and initiatives here. Postgraduate students in several institutions have also undertaken research, and could very well be the Australian OEP advocates and researchers of the future.

One study, for example, proposes a *continuum of open practice model*, which “approaches OER adoption from the practitioner perspective only, but acknowledges the impact and constraints of the institutional environment” (Stagg, 2014, p. 159).

The model has five stages: 1) Awareness/Access (basic replacement), 2) Sharing a Newly Authored OER, 3) Passive Practitioner Remix, 4) Active Practitioner Remix, and 5) Student Co-Creation. The researcher emphasises strongly that it does not represent a sequential development.

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\(^8\) [http://wikieducator.org/course/Curriculum_design_for_open_education/](http://wikieducator.org/course/Curriculum_design_for_open_education/)
on the adoption of OER. Rather, “each stage is not co- or pre-dependent on the previous one” (Stagg, 2014, p. 159). However, the latter stages of the continuum require practitioners to have a greater understanding of OER and OEP than in the earlier stages. The study was still in progress at the time of this writing, so research findings will further inform and may lead to restructuring of this model.

Another study, conducted by Fatayer (2013), proposes an OER development model using design-based research. The model has three stages: 1) Building content, 2) Evaluation, and 3) Publishing. The study is engaging students and academics at the University of Western Sydney in content creation and co-creation, using the model as an instrument, and aims to build a community of practice around OER. Research findings showed that participating students, mostly those who were digitally literate, have engaged in OER creation, and 48% of them licensed their content using the most flexible Creative Common licences (CC BY and CC BY-SA). In addition, despite the fact that the project used the institution proprietary LMS as a repository for the resources created, 25% of the student-generated content has been shared elsewhere online (Fatayer, 2014).

The Importance of OEP Transformation and Final Considerations

The adoption of OEP in Australia started with the open access movement. It then transitioned to open and free content in the VET and school sectors. Keeping with an international trend, the primary agent of this transformation has been the national and state governments in Australia. With their endorsement, and encouraged by the growing number of OER initiatives worldwide, some universities in Australia embarked on the OEP journey via various institutional and collaborative projects and then later on through government-funded ones.

The scope of OEP in higher education in Australia has rapidly expanded, impacting several institutional levels. However, because many of the initiatives discussed in this chapter are still under development, it is not possible to uncover the full extent of the impact of OEP on higher education in Australia at this stage.

The investments in time and funds from these institutions and government agencies show that the level of commitment to OEP is vital to maintaining competitiveness and prosperity in the sector in the decades ahead. OEP has already transformed Australian higher education by increasing collaboration amongst institutions and advocates; by making high-quality resources openly and freely accessible to all learners; by encouraging the development of more transparent and open policies that promote and award academics who would like to engage in OEP; by supporting learning and teaching in a way that encourages innovation and curriculum renewal; and by attracting new and enthusiastic researchers interested in investigating and helping OEP further progress in Australia.

However, Australia is not an isolated case. This transformation has taken place in other parts of the world such as the UK, the U.S., New Zealand and some European countries — and with much more intensity and impact than in Australia (Bossu et al., 2014a). Compared with these regions, more needs to be done if the Australian higher education sector and government wish to take full advantage of the benefits
of OEP. National strategies in the form of dedicated policy frameworks and funding will need to be forthcoming to put this movement into a more prominent position within the educational mainstream. Such strategies could assist the government in effectively meeting some of its current social and educational agendas (e.g., to increase access to education by a more diverse student cohort, particularly socially excluded learners, working adults and those residing in rural and remote locations of Australia) (Bradley, Noonan, Nugent, & Scales, 2008).

The transformation triggered by OEP may be leading the sector to a better position worldwide. However, many challenges still remain. One of the biggest is the lack of understanding about, and restrictions surrounding, the Australian Copyright Act. Australia has one of the most restrictive copyright regimes in relation to education in the developed world (Padgett, 2013). These restrictions have a direct impact on approaches to open content develop, including for MOOCs.

Once these barriers are removed and policy enablers are further developed, the higher education sector in Australia will fully benefit from the transformative potential of OEP. The Australian tertiary sector needs to do more than simply replicate trends elsewhere in the world (as important as these are): it should seek to contribute to the open movement in new and innovative ways. Only then can the open movement “Down Under” truly claim to be about transformation.

References


Organisation for Economic Co-operation and Development (OECD). (2012). How are countries around the world supporting students in higher education? *Education Indicators in Focus*. Paris: OECD.


