



From 'entrepreneurial' to 'engaged' universities: social innovation for regional development in the Global South

Elisa Thomas & Rhiannon Pugh

To cite this article: Elisa Thomas & Rhiannon Pugh (2020) From 'entrepreneurial' to 'engaged' universities: social innovation for regional development in the Global South, *Regional Studies*, 54:12, 1631-1643, DOI: [10.1080/00343404.2020.1749586](https://doi.org/10.1080/00343404.2020.1749586)

To link to this article: <https://doi.org/10.1080/00343404.2020.1749586>



© 2020 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 04 May 2020.



[Submit your article to this journal](#)



Article views: 2519



[View related articles](#)



[View Crossmark data](#)



Citing articles: 6 [View citing articles](#)

From ‘entrepreneurial’ to ‘engaged’ universities: social innovation for regional development in the Global South

Elisa Thomas^a  and Rhiannon Pugh^b 

ABSTRACT

Regional roles of universities in the Global South have been under-explored, and it is not clear how relevant are concepts originating from the Global North when applied in this context. The paper interrogates the concept of the ‘entrepreneurial university’ and its regional impact and engagement via a case study in Brazil. It is found that, in addition to purely entrepreneurial and economic activities and roles, initiatives relating to social innovation and entrepreneurship to solve profound regional problems are a key part of the university’s work.

KEYWORDS

entrepreneurial university; social innovation; regional development; engaged university

JEL I23, L26, O3, R11

HISTORY Received 3 May 2019; in revised form 9 March 2020

INTRODUCTION


There have been increasing expectations placed on universities to become regional agents of change, and greater external and internal pressures to generate solutions to economic and social problems (Arbo & Benneworth, 2007; Bagchi-Sen & Smith, 2012). It is clear from the extant literature that higher education plays a key role in stimulating regional economic development, in addition to its traditional missions of teaching and research (Smith, 2007; Tripp et al., 2015). Work on ‘entrepreneurial universities’ finds universities taking an active role in the development of their regions through economically motivated activities such as technology transfer and university–industry partnerships (Clark, 1998; Goddard et al., 2014). It is against these well-documented trends in the contemporary role and characterization of universities that we situate this discussion, turning our focus to a university and its region in the Global South. This study was inspired by the apparent disconnects, complexities and contradictions we observed whilst working in a Brazilian university between the economic rationale of an ‘entrepreneurial university’ and the social obligations of an ‘engaged university’. We take this opportunity to unpack and interrogate the well-used terms ‘entrepreneurial’ and ‘engaged’ university with specific consideration of the

Global South context,¹ questioning their applicability and tenability when transplanted outside the Global North contexts in which they have been developed in the main literature to date.


We set the present study against the profound social and economic issues facing contemporary Brazil (financial crisis, unemployment, poverty and inequality), which nonetheless resonate globally. The roles and characteristics of entrepreneurial and engaged universities have been less studied in the Global South, and we also find little discussion relating to religious or confessional universities, which are key features of the academic landscape in Latin America (Cruz-Coke, 2004; de Donini & Torrendell, 2007; Tavares, 2009). These are two gaps in the current literature relating to universities and regional development that we address in this research.

Our empirical research found that universities in the Brazilian context undertake a significant amount of work under the agenda of the ‘social mission’, which is more in line with conceptualizations of social innovation and entrepreneurship than with a narrow economic mode. Reflecting back on the literature, this finding allows the further exploration of the complexities and contradictions inherent in the dualism of the economic rationale of an ‘entrepreneurial university’ and the social obligation of an ‘engaged university’: universities in Brazil are trying to be both. Indeed, we question whether this duality of roles is

CONTACT

^a (Corresponding author)  elisa.thomas@uis.no; thomaselisa@gmail.com

University of Stavanger Business School, Stavanger, Norway.

^b  rhiannon.pugh@oru.se

School of Humanities, Education, and Social Sciences, Örebro University, Örebro, Sweden.

especially pertinent in Global South contexts where universities (and their regions) are facing profound socioeconomic challenges such as poverty and inequality amongst local populations.

We use the concepts of social innovation and social entrepreneurship (Benneworth & Cunha, 2015; Defourny & Nyssens, 2010; Pol & Ville, 2009; van der Have & Rubalcaba, 2016) to understand better the regional roles universities play in Brazil, and to open up the analysis and understanding beyond the purely economic modes of the 'entrepreneurial university'. This is achieved through an in-depth mixed-methods case study drawing on interviews, document analysis, and auto-ethnographic and observational techniques.

We suggest that a version of the 'engaged university' concept, with strong elements of social innovation and social entrepreneurship thinking, may be more appropriate both to explain and understand the complex and multifaceted roles universities play in the Global South beyond the strictly economic. We also fill in gaps in our knowledge about religious universities, finding that religious ideals and convictions play a strong role in shaping the university culture and orientation, motivating staff and students towards poverty alleviation and community support efforts aimed at improving the lives of local populations. On a more practical level, we provide some examples of the types of social innovation and entrepreneurship initiatives undertaken, shining a light on activities of the 'engaged university' and shifting our focus away from the well-documented entrepreneurial university activities such as patenting, licensing and spin-out. We suggest a better incorporation of socially oriented ideas into the entrepreneurial university concept to render it more applicable and useful in understanding the situation in countries such as Brazil.

THEORETICAL FOUNDATIONS

This section introduces the key concepts we are drawing on in this paper, which we will return to in the discussion and conclusions to explore how the case application advances and challenges incumbent concepts and approaches currently popular within the literature on universities and regional development. The role of universities in regional development is unquestionably a topic of interest for regional scientists (cf. Harrison & Turok, 2017), leading to a fertile and fast-moving subfield developing. Two concepts that have become especially popular when discussing the wider roles of universities in the literature are that of the 'entrepreneurial' and the 'engaged' university. This section will set out these concepts, how we understand and employ them in this paper, and how they fit into wider discussions of the evolving roles of universities in their regional economies and societies.

Looking at the discussion of universities' evolving roles more generally, we can trace some major shifts that have taken place. These will be briefly covered here as background: rigorous overviews of the evolution of the body of work pertaining to the roles of universities in economic development already exist (e.g., Trippel et al., 2015; Uyerra,

2010). Overall, we can say that there has been a keen interest in the regional impacts of universities' activities (Guerrero et al., 2014, 2015; MacKenzie & Zhang, 2014; Power & Malmberg, 2008), and also a strong research focus on so-called 'third mission' activities such as licensing, spin-out and commercialization (Brown, 2016; Kirby et al., 2011; Lockett & Wright, 2005; Wright et al., 2007).

In the education domain, universities have been implementing programmes to increase the entrepreneurial intention of students, creating more supportive contexts for starting a business (Fayolle & Gailly, 2015) often with the final aim of promoting regional development (Bramwell & Wolfe, 2008; Kirby, 2006). Universities can also act in a governance light by providing developmental roles, linking up with national and regional policy, providing leadership and incentives for regional economic development, and engaging with local business communities (Charles et al., 2014; Gunasekara, 2006; Pugh et al., 2016). Recent conversations in the literature have been developing the entrepreneurial slant even further by placing universities as key actors within 'entrepreneurial ecosystems'² at the local and regional level (Cooke, 2016; Pugh et al., 2019).

This range of work has led to the advancement of some concepts theorizing universities' roles and activities within the economic domain. Trippel et al. (2015) identifies the 'entrepreneurial university' (Audretsch, 2014; Etzkowitz, 2004) and 'engaged university' (Breznitz & Feldman, 2012) as two key theories regarding universities and regional economic development.

Taking the entrepreneurial university concept first, according to Audretsch (2014), this phrase refers to the evolution of universities' roles to both produce new knowledge and facilitate the transfer of technology and knowledge spillover. Etzkowitz (2003) explains that this shift to the entrepreneurial university was both a result of increasing entrepreneurial interactions with firms and other actors, and internal restructuring of universities into competitively funded research groups, sharing qualities with start-up firms. The triple helix concept centres around the idea that interactions between the university, industry and government spheres drive innovation in the knowledge economy. The 'triple helix' features as both a theoretical or analytical construct and also as a policy blueprint (Etzkowitz & Leydesdorff, 1997; Pugh, 2017).

The entrepreneurial university concept has met challenges by those who perceive an over-concentration on marketization and the predominance of profit motives in higher education to the detriment of learning goals (Jones & Patton, 2018). Some see this shift towards increasing neo-liberalization and globalization in higher education as problematic both for staff working within universities and in terms of what these shifts mean for the sector as a whole (Addie, 2017; Berg et al., 2016; Boden & Epstein, 2006; Dowling, 2008).

Other work has questioned the rationale of driving regional economic development via universities, critically examining the tenability of the popular concepts such as 'triple helix' and 'entrepreneurial universities' in different regional settings (Pugh, 2017). Work relating to

entrepreneurial universities remains focused on the United States, according to Korosteleva and Belitski (2017).

Responding to the overwhelmingly economic conceptualization of universities as regional actors, the engaged university concept has attempted to explore broader notions of universities' regional engagement, including social dimensions (Breznitz & Feldman, 2012). Audretsch (2014) proposes the engaged university as the university for the entrepreneurial society. This engaged university perspective also takes into account governance activities and the position of universities as 'regional anchors' (Goddard et al., 2014). Goddard et al. (2016) have also proposed the concept of the 'civic university' to conceptualize the more governance related and cultural roles universities play as stable anchor institutions in their regions, but rather than treat this as a completely separate concept, we include it within the scope of the 'engaged university' perspective.

There are thus potential contradictions between the predominantly economic rationale of an entrepreneurial university and the social obligations of an engaged university that have not been thoroughly discussed in the literature. The concepts of social innovation and social entrepreneurship may, we argue, present potential to align these contradictions, framing outreach and engagement activities towards a social, rather than purely economic, orientation. The concept of social entrepreneurship presents a combination of social justice and solidarity with market activities (Benneworth & Cunha, 2015; Defourny & Nyssens, 2010). Pol and Ville (2009, p. 884) see the ultimate goal of social innovation as creating 'better futures', though of course this is a subjective formulation of the term. Social innovation is better defined as innovative activities and services that are motivated by the goal of meeting a social need and creating and implementing social change (Mulgan, 2006; van der Have & Rubalcaba, 2016), providing the potential to understand a wide range of interventions and actions under this rubric. It is seen as a powerful way to anchor urban change movements (Moulaert et al., 2007).

Marques et al. (2018) make a distinction between wide social change in scale and scope which they call 'structural versions of social innovation', the complementary version where social innovation complements existing economic or policy dynamics, and 'instrumental social innovation', where it rebrands existing agendas to be more appealing to stakeholders. As the social innovation field is rapidly evolving there are some issues with the depth of conceptual clarity (Isaksen & Trippel, 2016). Martin and Osberg (2007) agree: there is a need for more empirical, context-specific case studies to aid in the conceptualization of social innovation. Cajaiba-Santana (2014) argues that the boundaries of social innovation processes still have not been completely defined, requiring further contributions to theory and practice.

The lack of investigation of entrepreneurial universities in diverse regional contexts represents a significant lacuna in the field. It is unclear whether concepts such as the 'entrepreneurial university' can be applied universally, in a 'copy and paste' (cf. Piccaluga, 2006) manner, or whether

bespoke concepts and approaches are required in different regional contexts. As long as academics are recommending entrepreneurial university based approaches as solutions for regional policy-makers to develop the knowledge economies of their regions in diverse geographical settings (as per Korosteleva & Belitski, 2017), we see a pressing need to take stock of predominant theoretical constructs, and assess their appropriateness and universality through empirical observation in a range of regional settings.

In particular, we see a need to dig deeper into the social dimensions of the entrepreneurial university, exploring the potential of universities and regional actors to play roles beyond the purely economic, solving other real problems facing their regions. It is against these two identified gaps in the work on the entrepreneurial university, and broader work on universities and regional development, that we situate this study: a lack of diverse regional applications, especially in the Global South, and a scant conceptualization of social entrepreneurship and innovation to look at universities as more than economic actors.

METHOD: QUALITATIVE CASE STUDY

We have conducted an exploratory case study of a regionally significant university in Brazil, which has traditionally been very concerned with influencing its region by driving entrepreneurship and innovation, and improving the social situation through diverse projects aimed at local communities. What is especially interesting about the present case study, and for which we find little discussion in the literature, is the fact that the university is a confessional (Jesuit) one. This adds another dimension, of religious conviction and principle, to the discussion of impact and engagement.

A motivation for choosing a case study in Brazil is the aforementioned lack of research in the Global South, and oversight within discussions of entrepreneurial universities relating to more social orientations. Another motivation for choosing a Brazilian case is the challenging setting within which universities are operating, regarding the multifaceted social and economic issues facing the country. For example, the growth rate has decelerated since the beginning of this decade (World Bank, 2018). Unemployment of 11% has led to declines in private consumption (Rapoza, 2017). Specific challenges face the education sector. Although Brazil has invested more in education than the average of Organisation for Economic Co-operation and Development (OECD) countries considering the gross domestic product (GDP) (World Bank, 2018), results from OECD PISA (2018) show that the performance of students in Brazil is significantly below the average. Besides, in a country of 209 million people, almost 13 million Brazilians aged 15 years and over are illiterate (Instituto Brasileiro de Geografia e Estatística (IBGE), 2017).

University context in Brazil

The first public Brazilian universities were established when the Portuguese royal family took up residence in Brazil (1808–20). The first private (Catholic) universities were

founded in 1946. The two main funding agencies operating still today were founded in 1951 (National Council for Scientific and Technological Development – CNPq; and Coordination for the Improvement of Higher Education Personnel – CAPES). The first education law was enacted in 1961 (latest edited version: BRASIL, 1996). However, graduate programmes (master's and doctorates) were introduced after 1964, with the readjustment of education policies in the military government, when it established the university as the preferred model of higher education, thus affirming the integration of teaching and research missions (Durham, 2004; Neves, 2017).

Nowadays, higher education is provided by public (funded by the federal, state or city governments) or private universities (for-profit or not-for-profit, as the case of Catholic institutions). There are almost 2500 higher education institutions (HEIs) in the country, 87.9% of which are private. Of those with a university status, 106 are public and 93 are private, around one-quarter of which are confessional institutions – this is a legal term for HEIs which are private, not-for-profit and not charitable funded by a specific 'confessional and ideological' orientation (BRASIL, 1996). The importance of private HEIs in the Brazilian system is visible through undergraduate student numbers: in 2017, there were more than 10 million positions in the country, 92.4% of which were offered by private institutions (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP), 2018).

With regards to universities' third-mission roles, following the example of developed countries, Brazilian universities have invested resources to develop programmes towards entrepreneurship and innovation. Incentivized by the Brazilian Innovation Law (BRASIL, 2004a, 2005; Etzkowitz et al., 2008), Brazilian universities invest in start-up incubators and technology parks as the means to foster entrepreneurship, new ventures and technology transfer (Almeida, 2008; Dagnino & Velho, 1998; Etzkowitz et al., 2005; Rapini et al., 2009; Thomas et al., 2017).

The university in the case study

We decided to keep the institution anonymised. Suffice to say, the university was founded 50 years ago, is located in an urban region, has schools in health, humanities, engineering, natural and social sciences, and has around 25,000 students and 75,000 alumni. The university is research intensive, with 17 doctoral programmes and more than 300 research projects at the time of writing. It is part of a large international Jesuit association which runs 21 educational institutions and social assistance organizations in Brazil, and its mission is committed to developing the whole person to act in solidarity for the development of society. Mirroring wider international trends, for the last 20 years, the university has followed the strategy of becoming an entrepreneurial university with strong investments in technological innovation and entrepreneurship.

Regional context

The region where the university is located comprises around 20 cities and more than 2 million people. In the

1970s, the region's most prosperous period, it was an important cluster of footwear production and export (Santos et al., 2017). That goes along with the foundation of the university in the same decade. However, since the mid-1990s, competitive pressures from other parts of the world, mainly Asia with lower labour costs, have intensified competition based on prices. As a consequence, the industry and related actors within the value chain have moved out of the region causing loss of more than 30,000 jobs and business closures (Costa, 2010). Nowadays, services represent around 60% of the jobs in the region (Berté et al., 2016). For the last 15–20 years, the region has been trying to establish itself as a technology-driven economy. Nevertheless, it is still mainly dominated by medium-high technological industries (IBGE, 2017). The university directly orients itself towards the regional industry, developing education and research focused on high technology as well as incentivizing innovative firms through its technology park.

Methodology and methods of enquiry

Because of the lack of previous exploration of the topic and context, it was decided that an exploratory case study would be the best approach to take (Eisenhardt & Graebner, 2007; Yin, 2018). To access information about the university's activities, we used a mixed-methods approach with interviews as the primary data-collection technique, also drawing upon observation and ethnographic methods during periods undertaking research and teaching at the institution. During the data collection, we analysed the internal (i.e., university) and external (i.e., government) policies that drove much of the university's work. Ethically, we decided the best option was to anonymise the case and the respondents, in order that they could speak more frankly and confidently. Conflicts of interest were minimized by the fact that neither author is employed by the institution, though we drew on personal contacts and our own experiences in the research. It was helpful being both 'insider' and 'outsider' to obtain different perspectives on the situation, and ultimately, we gained much better access to interviewees and greater knowledge of the activities taking place in the institution. Having been employed variously at several other institutions allowed it to be noticed what was 'special' about this case in terms of the primacy of the social mission in addition to the more standard 'entrepreneurial university' activities. We initially recognized that this could be some interesting combination of the challenging Brazilian context and the character of the institution as Jesuit mission oriented, which inspired the investigation further.

We conducted interviews with members of the university in various positions (senior management, teaching, project management, students, alumni) chosen according to their involvement in outreach activities at the university (Table 1).

Semi-structured interviews (Flick, 2002) were preferred because of their structure around particular topics or issues (Simons, 2009). Respondents were asked to explain their

Table 1. List of interviewees.

Respondent	Identification
Manager of Research, Development and Innovation of the university	I1
Former Director of the Technology Park (until January 2019)	I2
Former coordinator of the university's incubator located at the Technology Park (until December 2018)	I3
Lecturer and coordinator of Entrepreneurship and Innovation courses for undergraduate programmes	I4
Lecturer of Entrepreneurship and Innovation also involved with other activities in this subject who has worked as an entrepreneur and also teaches entrepreneurship at a primary school in the region	I5
Coordinator of the Center for Social Action at the university (Jesuit priest)	I6
Former student who graduated in innovation management and opened two firms in the region: one in the incubator and the other outside the incubator	I7
Former student who won the entrepreneurship competition while he was an undergraduate student. Opened a start-up company at the university's incubator	I8
Dean of the Business School	I9
Social work assistant at the university and course coordinator of social projects for the Bachelor's in Management course	I10
Pro-rector for Academic Affairs and International Relations	I11

roles, activities undertaken, barriers faced, work with other actors within the department, university and region, and to reflect on the changing nature of the university and their role within. We supplemented interviews with document analysis and auto-ethnographic observations. Data were collected from 2015 to 2018.

We took an inductive approach to analysing both the interview transcripts and the reflections we had made ourselves, allowing the themes to emerge as we went through the data. We started off by reading through interviews and performing 'selective coding' to summarize the main story being told by interviewees (Flick, 2002, p. 182). We then refined themes into descriptive categories, which are mainly the activities of the university within the society of its host region, and activities towards fostering technological innovation and entrepreneurship (creating Table 2). Descriptive categories were then synthesized into analytical categories that explained what we were looking at when brought together (Bansal & Corley, 2011, 2012). Analysis was iterative with ideas emerging from data held up against the literature with the constant comparative approach providing a way to review data with emerging categories and concepts (Bansal & Corley, 2012).

RESULTS: ACTIVITIES AND ROLES CONCERNING ECONOMIC AND SOCIAL ASPECTS

Here we present the main themes that emerged from the analysis of the case study, focusing on our initially recognized issue of the interplay, overlap and tensions between the social and economic dimensions of the university's impact on its region. We deal with each aspect in turn, before the discussion enriches the case presentation with some discussion of the 'how' and 'why' of what we saw taking place. The activities we identified were set against the backdrop of the three main strategic priorities of the university: transdisciplinarity; education for the whole of

life; and regional development (official university strategy).³

Social programmes and community involvement

Social impact has always been at the core of the university's mission, and having a positive impact on the locality has been prioritized. This is traced back to the university's history in being founded as a Jesuit university with a strong social mission and rationale. As the following interviewee explains, it is something of a 'duty' that the university should have a positive impact on the community:

The social projects are a way for the university to give back to the community. Moreover, that is the way for the university to fulfil its role in society, which is to not only produce and teach science, but also to give knowledge back to the community. (I6)

In addition to this sense of duty, there is also a sense that it is better for the staff and students if they are engaging with the community because this provides knowledge, experience, and 'integrity' that could not be gained from within the classroom alone.

Students should not leave the university with only a load of empirical knowledge but also an engagement. The students have the classroom to acquire knowledge, and the participation in social projects to apply their knowledge, while at the same time obtaining other knowledge through the practice of the social project. The community offers new conditions for the students to develop their skills. (I6)

The students are seen as being shaped by the region and the community, and engagement is seen as a way to develop practical skills and knowledge beyond the purely academic. This two-way interaction is often missed in research into

Table 2. 'Outreach' activities, broadly defined.

	Scope
<i>Programmes and projects within the social approach</i>	
Dance and Sports Program	Sports, recreation and activities related to percussion and dance for children and adolescents from the city where the university is located. It is in line with the National Social Assistance Policy (BRASIL, 2004b)
Afro-Brazilian and Indigenous Studies	Research and documentation about education for ethnic racial relations; in line with the National Curricular Guidelines for the Education of Ethnic–Racial Relations and the Teaching of Afro-Brazilian and African History and Culture
Elderly Networking and Bonding	Twenty-two activities aimed at people over 60 years old from the region; supported by the guidelines from the System of Social Assistance, the National Secretariat of Social Assistance of the Ministry of Social Development and Fight against Hunger
Education Program	Support to children and young people, their families and schools; articulating teaching and research with the areas of pedagogy, psychology and other bachelor's degrees in education. In practice, a place for university students' internship
Legal Practices Program	Free legal assistance for people in situations of social and economic vulnerability. In practice, a training place for law, social service and psychology students
Extended Health Care	Health services, and a place for internships of nursing, nutrition and psychology students
Food Bank	Food donation for people from five cities in the region, aiming at contributing to overcome poverty and improving the nutrition of adults and children
Life with Art	Students receive music instruments in a lending system. People working for the programme are music teachers, psychologists and a social assistant
Digital Citizen	Courses for digital inclusion and access to information technologies
Social–Educative Action in the Community	Activities for poor children and adolescents in the period free from school. Run by academics from biology, nutrition, psychology and social work in partnerships with companies and the public sector, in accordance with the National Policy for Social Assistance
15-year-old ball	Students from the bachelor's in fashion organized balls for more than 60 girls from the slums
Student scholarships	Scholarships provided by the university's own fund for some students who cannot afford to pay for tuition if they have studied in public schools and depending on the socioeconomic situation of their families
<i>Programmes and projects within the economic approach</i>	
Entrepreneurship and Innovation courses	Professors of different areas (i.e., marketing, design and regional development) offer courses of entrepreneurship and innovation to more than 70% of undergraduate programmes mixed in the same classroom. More than 5000 students have already attended these courses
Technological institutes	Applied research commercialized to industry. One institute was created because of the Support Policy to Technological Development of Semiconductors Industry launched in 2007, which fosters university–industry interactions (BRASIL, 2007)
Technology transfer office	Responsible for raising and managing innovation projects in interaction with industry or public institutions. Supported from the Innovation Law (BRASIL, 2004a, 2005)
Technology park and start-up incubator	Environment for the creation and location of technology-based companies
<i>Programmes and projects with a socioeconomic combined approach</i>	
Green Tech Park Program	Establishes environmental parameters and connections between companies located in the technology park; promotes actions that help reduce resources consumption and waste generation

(Continued)

Table 2. Continued.

	Scope
Entrepreneurship competition	Ran by the university and the start-up incubator, awarding a free incubation period for the winners. Since 2016, technology proposals should solve social problems in health, safety, mobility, education and environment
Undergraduate programme in Innovation Management	Project- and action-based four-year programme where students are assessed based on their competences (knowledge, skills and attitude) and develop social innovation with and for the local community
Cleaner World	The chemistry department and business school helped the creation of a cooperative of women from the region that recycles used kitchen oil into commercial products such as soap and candles

'third mission' and 'entrepreneurial universities' which focus on a push-out of knowledge, trainees and economic value from the university.

The university's Social Action Plan follows three main themes: promotion of environmental care, focusing on water; action against poverty; and education regarding racial and ethnic relations. Although the university is prioritizing the social mission, undertaking these roles is not easy in contemporary Brazil. The manager of research, development and innovation of the university explains that currently the university has a lot less external funding for social programmes and uses internal funding instead. In this sense, the university is using its religious mission to push against entrepreneurial trends which are devaluing the importance of activities that do not generate economic wealth (at least directly or measurably) for the university or region.

Entrepreneurship and innovation at the university

Over the past 20 years the university has been investing strongly in entrepreneurship and innovation. The rationale behind these activities is to assist in the economic development of the region, against a backdrop of economic decline. As the manager of research, development and innovation of the university explained:

The current productive industry of the region will lead it to poverty, because the industry has an intensive use of cheap labour, manufactured products of low added value, low technological complexity, and inefficient production process. That is why the technology strategy of the University aims to help change the industry specialization of the region. With this goal, the university created five technology institutes in fields that could help the region to develop a new knowledge-based productive sector, or improve existing ones.

(11)

Therefore, we can see that this is very economically focused, but also has social needs intertwined because of the concerns that the path trajectory could lead to poverty in the region if not adjusted, which this individual sees the university as having a role in changing. In addition to technology institutes, the university runs a technology

park and a start-up incubator⁴ to help the establishment of new knowledge-based companies following the triple helix mode of economic development which gained popularity in both academic and policy spheres globally, including in Brazil (Etzkowitz et al., 2008).

For an alternative perspective on the economic engagement of the university, we interviewed a former student who had started up two companies. His perspective on the support offered by the university (which follows patterns of programmes offered in other universities worldwide) is quite a positive one:

One of our professors made contact with the incubator for us. We were incubated for 1.5 year, having gotten a great support from the incubator. In the real world of a company, we deal with marketing, finance, production ... and the undergraduate program developed us for that multidisciplinary.

(17)

We can see two different approaches towards entrepreneurship and innovation. One is the investment in technology institutes, firms and start-ups; and the other one is in creating an entrepreneurial and innovative culture among the academic community. From the former coordinator of the incubator, a teacher and a course coordinator's opinions, the goal is to motivate people for entrepreneurship. They see these activities in terms of the learning outcomes and the potential to arouse interest amongst the students, as the following quotations illustrate:

In my opinion, we do have to push entrepreneurial education at the university. Regarding the students ... [they] will be touched somehow by entrepreneurship after having tried it in the classroom.

(13)

When we stimulate entrepreneurship, we want to stimulate the empowerment of people, personal fulfilment, business that work out well or solve social problems.

(14)

The fact that we offer these courses not only for Business students breaks the paradigm that only business people can be entrepreneurs. Everybody has the competence to be an entrepreneur.

(15)

While the university manager sees the direct impact the university can have on the region, the educators are more viewing the activities as learning experiences and as a way to get students more engaged in driving broader change. Whereas the overall university strategy may be focused on economic factors, the reality of practitioners' experiences and motivations is more nuanced. The educators are linking up the economic activities to wider social objectives and highlighting the relevance for whatever job the students end up doing. This is where we can see a great potential to coordinate the economic and social aspects further, because the potential to learn and get interested in new things can be relevant whether one is working on a purely economic or technical project or in one with more social aims. By couching social impact and engagement in this 'entrepreneurship' language, we find that practitioners ensure their projects keep receiving funding and support even as the university slides further towards the 'entrepreneurial university' model.

As a summary of projects and programmes, [Table 2](#) provides an overview of the university's initiatives towards impacting on the region regarding social challenges and innovation with a focus on technology development and entrepreneurship education. As seen, fairly few of the projects combined both approaches.

DISCUSSION

It became clear as we were undertaking the research that the social programmes, and the entrepreneurship and innovation programmes are dealt with in parallel in the university's strategy and practice, and that social mission work is in danger of being side-lined as economic impact is considered increasingly important both by the university management, and policy actors. Interviewees revealed their concerns about the decreasing budgets and resources (including staffing) for the social mission activities, which would ultimately limit the achievement of the confessional mission of the institution. Organizationally, the two streams of activities are being implemented and funded separately, and the social mission struggles against funding cuts. The separation of economic and social impact both in literature and policy (at the state and university level) is somewhat illogical considering that the ideas and rationales around helping the local area and addressing challenges such as poverty and welfare were cross cutting.

Discussions with staff showed a high degree of interweaving the concepts of entrepreneurship and innovation to account for both economic and social dimensions of outreach: these two spheres were often discussed in conjunction, and although we have discussed them separately in our analysis for the purposes of clarity of presentation, in reality the discussion during the interviews were highly intermingled across the economic and social interpretations of the university's work. Theoretically, our concern is that focusing overwhelmingly on the economic nature reduces this complexity to a range of narrow and easily identifiable outcomes that fit well within the entrepreneurial university

narrative (cf. Bramwell & Wolfe, 2008; Brown, 2016; Kirby et al., 2011). Interestingly, we found that the university staff co-opt language pertaining to 'innovation' and 'entrepreneurship' in order to keep doing their important social mission work, and to keep the funds flowing as much as possible, in line with what Marques et al. (2018) called 'instrumental social innovation'. As the former coordinator of the start-up incubator exemplifies, the challenging economic situation is putting programmes under threat:

From 2012 to 2014, the entrepreneurship competition prize was one-year free incubation. For financial sustainability we lowered the prize to six months, but we keep running it.

(I3)

To better understand this tension, or interaction, between strictly economic and more social engagement activities we identified and categorized several actions according to whether they are concerned mostly with social or economic impact, or a mix of both. [Table 2](#) shows that fairly few of the projects have combined both approaches. It is clear that the reality is a stronger involvement in social and community activities than the university's positioning itself within the rhetoric of an 'entrepreneurial university' would suggest. We credit this strong social involvement to the university's Jesuit institutional history with an articulated social mission, which clearly shone through in the interviews with respondents explaining how the social mission activities in the university were directly inspired by, and prioritized due to, its Jesuit heritage and character. The pro-rector was very clear in this regard:

As a Jesuit university, this university has a mission. And as a manager and a professor here, I work in order to consolidate this mission which is to work for this humanitarian, social and sustainable world where people need to cultivate values. This is part of our work. It's not only about teaching, researching and having an interaction with companies. We do everything with the idea of a better world.

(I11)

The results shine a light on the kind of social work that is often ignored in discussions of entrepreneurial universities' impact (Etzkowitz, 2004; Guerrero et al., 2015; MacKenzie & Zhang, 2014). Indeed, [Table 2](#) illustrates that these activities actually outnumber the more 'economic' activities. We followed up this theme in interviews and policy analysis to find some explanation for why social and economic spheres are functioning separately in practice (i.e., in university management). We find some explanation via examining the structure of the university. Courses are taught separately under headings such as 'innovation and entrepreneurship' and 'social work' in different departments. The social work assistant who coordinates social projects for business students explains:

The (social) projects do not have an integration to other courses in Management. Students would benefit if our social work had inputs from finance or marketing. In some situations, even logistics could help us to develop a better project for the local communities, but we are not integrated with other teachers.

(I10)

The coordinator of the Center for Social Action (I6) also exemplifies this separation when he mentions that he manages 'social projects towards helping the local community', but 'social programmes as scholarships are managed by academic departments, and innovation programmes are managed by the Technology Park'.

This lack of intertwining between departments results in separate incentives regarding programmes and projects with students, companies and the wider region's society. There are two separate streams of investment within the university's strategy. We see this separation also in the literature on 'entrepreneurial universities', which is surprisingly silent on the issue of social impact and change (Jenson & Harrisson, 2013; Juliani et al., 2017; Martin & Osberg, 2007).

Another explanation may come from public policies from the national government regarding incentives for universities (laws BRASIL, 2004a, 2005, 2007). Also, the regional impact of social programmes is more difficult to measure compared with, for example, spin-out and intellectual property production. Several results can be directly measured to show the impact of universities' actions toward economic entrepreneurship and innovation (Etzkowitz et al., 2008; Svensson et al., 2012), but that is not true about metrics presenting social impact from programmes targeted at solving social challenges (Cajaiba-Santana, 2014; Edwards-Schachter & Wallace, 2017). For instance, how do we economically conceptualize a programme that helps prevent old people suffering from loneliness and isolation; or children learning how to play a music instrument? (examples from Table 2).

If this university were to follow the entrepreneurial university discourse strictly, several social programmes would likely end, and the region would lose such important help towards overcoming long-lasting problems such as poverty or illiteracy, and new challenges such as digital inclusion. We see a special role for institutions with a religious mission to stand against the tides of a purely economic-driven approach to higher education (cf. Jones & Patton, 2018), and to be a positive force for social good in their regions based on their core values and missions. The findings support a growing body of work taking a broader perspective on innovation to realize its importance beyond the purely economic sphere, to incorporate elements of social, green and inclusive understandings (e.g., Benneworth et al., 2017; Juliani et al., 2017). As of yet, universities have been only partially placed in this debate.

The other contribution this paper makes is to elucidate the Global South perspective, and what are the roles of universities in these context: when we turn to the literature on

universities and regional development we find it dominated by European and North American cases (e.g., Benneworth et al., 2009; Bramwell & Wolfe, 2008; Guerrero et al., 2015; Pugh et al., 2016; Zhang et al., 2017), leaving a knowledge gap when it comes to countries in the Global South. Furthermore, there is very little discussion of confessional or religious institutions that play a key role in the higher education systems in many countries, in particular developing countries (Cruz-Coke, 2004; de Donini & Torrendell, 2007; Tavares, 2009). Therefore, if we are to achieve a truly global discussion on the roles of universities in regional development, we need a greater consideration of these diverse contexts and institutions (Guerrero et al., 2019).

CONCLUSIONS

This paper set out to fill some gaps in the literature regarding entrepreneurial and engaged universities in the Global South and the roles and activities of religious or confessional universities that make up a large part of the academic landscape in Latin America. When we began our research, we set out to interrogate the well-established 'entrepreneurial university' concept in a developing country, and especially fill in some gaps we saw in the extant literature relating to the treatment of engagement activities oriented towards social outreach and impact. Through conducting interviews, observations and policy analysis, we pieced together the jigsaw of one particular university's activities in its region, and explored some of the motivations and tensions behind the different programmes being conducted. We found the social mission to be at the heart of much the work being carried out, and a very important rationale. The social mission is ingrained in the university's work stemming from its Jesuit founding, and we suggest that the entrepreneurial university idea could in fact look quite different when we add different types of institutions (with different missions, histories, etc.) into the mix, requiring a stronger placement of ideas around social entrepreneurship and innovation.

Theoretically, we argue for movement away from a narrow conceptualization of 'entrepreneurial universities' in the Global South towards an 'engaged' university notion that credits equal importance to efforts towards social and economic innovation, entrepreneurship, and development. This will render the concept more applicable and reflective of the reality we see in universities in the Global South, better taking account of the range of institutions that exist, including confessional universities.

Specifically, our case study university declares three streams of activity within its mission (environmental sustainability; action against poverty; and education regarding racial and ethnic relations), and in practice we found several other foci, including care for the elderly, digital inclusion, and education for art, which should be taken into consideration in the conceptualization of the university's impact on the regional community. A conceptualization of the university that fails to account for or to

analyse these social dimensions (i.e., as a purely economic actor) will miss a large part of the picture, and will fail to understand fully what a university is and how it impacts upon its region, especially in countries facing multifaceted social and economic issues such as in the Global South.

In conclusion, we find the entrepreneurial university concept to be incomplete in the emerging economy context, where universities are at the heart of regional efforts to address massive social and economic challenges, largely because of its scant treatment of social innovation and entrepreneurship dimensions. From a practice perspective, if we can better understand and theorize the social dimension of universities work, we open up the following possibilities: assisting universities in having a positive role within their regions through a variety of social and economic paths; helping policy-makers to create more effective and appropriate policy that takes into account the range of issues universities are working with; better measurement of universities' impact beyond narrow economic factors.

Focusing on the practical learnings relating to the Global South context, our call to include social innovation and entrepreneurship ideals and practices into the conceptualization of the entrepreneurial university goes further, suggesting even a conceptual shift in university and higher level (regional and national policy) towards the engaged university model. Because of the potential of this concept to include social aspects and also to conceptualize the governance, leadership and cultural roles of the university (akin to Goddard et al.'s (2016) concept of the civic university discussed in the literature review), we suggest it could be more fitting for the Global South context where challenging regional settings and problems mean that the university is necessarily acting beyond its purely economic roles as a key deliverer of supports and services to local populations. As such, we argue that the engaged university concept, whilst it has been developed largely in Global North settings, could provide more promise than the narrower entrepreneurial university concept when trying to both understand and create better policy and practice for universities' roles in economic and social development in regional settings in the Global South.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

FUNDING

The authors thank Formas for its partial support for this paper [project grant number 2018-01053].

NOTES

1. After much consideration, we decided to use the term 'Global South' rather than alternatives such as 'emerging

economy' or 'developing economy'. This was in part because this term is widely used regarding the Brazilian context and well understood internationally. We appreciate that it is a sweeping term and there are profound differences between contexts in, for example, Latin America, Africa and Southeast Asia. Whilst we do not want to use too broad a brush, we also want to refer here to regional contexts more generally beyond the 'usual suspects' of Western Europe and North America we so often read about when studying entrepreneurial universities and regional development.

2. An entrepreneurial ecosystem refers to the relations among actors, policies and resources, including cultural, social and material attributes, with the aim to support and improve entrepreneurial activity in a locality (Alvedalen & Boschma, 2017; Spigel, 2017).

3. We have deliberately left out the references to university policy documents as these would unblind the case, so we have used generic references instead. However, we directly used university materials and policy documents in the analysis, so they are important to mention here because they explain some of the findings and discussions.

4. There are 100 companies generating around 6000 jobs in the company condominium and 30 start-ups in the incubator.

ORCID

Elisa Thomas  <http://orcid.org/0000-0001-6099-7357>

Rhiannon Pugh  <http://orcid.org/0000-0003-3429-2788>

REFERENCES

- Addie, J. (2017). From the urban university to universities in urban society. *Regional Studies*, 51(7), 1089–1099. <https://doi.org/10.1080/00343404.2016.1224334>
- Almeida, M. (2008). Innovation and entrepreneurship in Brazilian universities. *International Journal of Technology Management and Sustainable Development*, 7(1), 39–58. https://doi.org/10.1386/ijtm.7.1.39_1
- Alvedalen, J., & Boschma, R. (2017). A critical review of entrepreneurial ecosystems research: Towards a future research agenda. *European Planning Studies*, 25(6), 887–903. <https://doi.org/10.1080/09654313.2017.1299694>
- Arbo, P., & Bennenworth, P. (2007). Understanding the regional contribution of higher education institutions. *OECD Education Working Papers*. <https://doi.org/10.1787/19939019>
- Audretsch, D. B. (2014). From the entrepreneurial university to the university for the entrepreneurial society. *Journal of Technology Transfer*, 39(3), 313–321. <https://doi.org/10.1007/s10961-012-9288-1>
- Bagchi-Sen, S., & Smith, H. L. (2012). The research university, entrepreneurship and regional development: Research propositions and current evidence. *Entrepreneurship and Regional Development*, 24(5–6), 383–404. <https://doi.org/10.1080/08985626.2011.592547>
- Bansal, P., & Corley, K. (2011). The coming of age for qualitative research: Embracing the diversity of qualitative methods. *Academy of Management Journal*, 54(2), 233–237. <https://doi.org/10.5465/amj.2011.60262792>

- Bansal, P., & Corley, K. (2012). Publishing in AMJ – Part 7: What's different about qualitative research? *Academy of Management Journal*, 55(3), 509–513. <https://doi.org/10.5465/amj.2012.4003>
- Benneworth, P., Coenen, L., Moodysson, J., & Asheim, B. (2009). Exploring the multiple roles of Lund university in strengthening Scania's regional innovation system: Towards institutional learning? *European Planning Studies*, 17(11), 1645–1664. <https://doi.org/10.1080/09654310903230582>
- Benneworth, P., & Cunha, J. (2015). Universities' contributions to social innovation: Reflections in theory & practice. *European Journal of Innovation Management*, 18(4), 508–527. <https://doi.org/10.1108/EJIM-10-2013-0099>
- Benneworth, P., Pinheiro, R., & Karlsen, J. (2017). Strategic agency and institutional change: Investigating the role of universities in regional innovation systems (RISs). *Regional Studies*, 51(2), 235–248. <https://doi.org/10.1080/00343404.2016.1215599>
- Berg, L. D., Huijbens, E. H., & Larsen, H. G. (2016). Producing anxiety in the neoliberal university. *Canadian Geographer*, 60(2), 168–180. <https://doi.org/10.1111/cag.12261>
- Bertê, A. M. A., Lemos, B. O., Testa, G., Zanella, M. A. R., & Oliveira, S. B. (2016). *Perfis Socioeconômicos dos COREDEs* (Boletim Geográfico do Rio Grande do Sul No. 26). Secretaria do Planejamento, Mobilidade e Desenvolvimento Regional.
- Boden, R., & Epstein, D. (2006). Managing the research imagination? Globalisation and research in higher education. *Globalisation, Societies and Education*, 4(2), 223–236. <https://doi.org/10.1080/14767720600752619>
- Bramwell, A., & Wolfe, D. A. (2008). Universities and regional economic development: The entrepreneurial University of Waterloo. *Research Policy*, 37(8), 1175–1187. <https://doi.org/10.1016/j.respol.2008.04.016>
- BRASIL. (1996). *Lei de Diretrizes e Bases da Educação Nacional – LDB* (Lei no. 9394/96). 20 de dezembro de 1996.
- BRASIL. (2004a). *Lei de Inovação Tecnológica* (Lei n.º 10.973/2004). Brasília, DF, 03 dez. 2014. Retrieved from http://www.planalto.gov.br/ccivil_03/_Ato2004-2006/2004/Lei/L10.973.htm
- BRASIL. (2004b). *Política Nacional de Assistência Social* PNAS/ 2004. Brasília, DF, 15 October 2004.
- BRASIL. (2005). *Lei do Bem* (Lei n.º 11.196/ 2005). Brasília, DF, 21 November 2005.
- BRASIL. (2007). *Programa de Apoio ao Desenvolvimento Tecnológico da Indústria de Semicondutores* (PADIS) (Lei n.º 11.484/2007). Brasília, DF, 2 October 2014.
- Breznitz, S. M., & Feldman, M. P. (2012). The engaged university. *Journal of Technology Transfer*, 37(2), 139–157. <https://doi.org/10.1007/s10961-010-9183-6>
- Brown, R. (2016). Mission impossible? Entrepreneurial universities and peripheral regional innovation systems. *Industry and Innovation*, 23(2), 189–205. <https://doi.org/10.1080/13662716.2016.1145575>
- Cajaiba-Santana, G. (2014). Social innovation: Moving the field forward. A conceptual framework. *Technological Forecasting and Social Change*, 82, 42–51. <https://doi.org/10.1016/j.techfore.2013.05.008>
- Charles, D., Kitagawa, F., & Uyerra, E. (2014). Universities in crisis? New challenges and strategies in two English city-regions. *Cambridge Journal of Regions, Economy and Society*, 7(2), 327–348. <https://doi.org/10.1093/cjres/rst029>
- Clark, B. R. (1998). *Creating entrepreneurial universities: Organizational pathways of transformation. Issues in higher education*. Elsevier.
- Cooke, P. (2016). The virtues of variety in regional innovation systems and entrepreneurial ecosystems. *Journal of Open Innovation: Technology, Market, and Complexity*, 2(1). <https://doi.org/10.1186/s40852-016-0036-x>
- Costa, A. B. d. (2010). The footwear industry in Vale do Sinos (Brazil): Competitive adjustment in a labour-intensive sector. *Cepal Review*, 2010(101), 157–172. <https://doi.org/10.18356/abe2f7e8-en>
- Cruz-Coke, R. (2004). The evolution of Chilean universities from 1981 to 2004. *Revista Médica de Chile*, 132(12), 1543–1549. <https://doi.org/10.4067/S0034-98872004001200014>
- Dagnino, R., & Velho, L. (1998). University–industry–government relations on the periphery: The University of Campinas, Brazil. *Mimerva*, 36(3), 229–251. <https://doi.org/10.1023/A:1004335804375>
- de Donini, A. M. C., & Torrendell, C. H. (2007). Catholic education, state and civil society in Argentina. In Grace, G. R., & O'Keefe, J., SJ (Eds.), *International handbook of Catholic education: Challenges for school systems in the 21st century* (pp. 211–228). Springer.
- Defourny, J., & Nyssens, M. (2010). Conceptions of social enterprise and social entrepreneurship in Europe and the United States: Convergences and divergences. *Journal of Social Entrepreneurship*, 1(1), 32–53. <https://doi.org/10.1080/19420670903442053>
- Dowling, R. (2008). Geographies of identity: Labouring in the 'neoliberal' university. *Progress in Human Geography*, 32(6), 812–820. <https://doi.org/10.1177/0309132507088032>
- Durham, E. R. (2004). Higher education in Brazil: Public and private. In Brock, C., & Schwartzman, S. (Eds.), *The challenges of education in Brazil* (pp. 147–178). Symposium Books.
- Edwards-Schachter, M., & Wallace, M. L. (2017). 'Shaken, but not stirred': Sixty years of defining social innovation. *Technological Forecasting and Social Change*, 119, 64–79. <https://doi.org/10.1016/j.techfore.2017.03.012>
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25–32. <https://doi.org/10.5465/amj.2007.24160888>
- Etzkowitz, H. (2003). Innovation in innovation: The triple helix of university–industry–government relations. *Social Science Information*, 42(3), 293–337. <https://doi.org/10.1177/05390184030423002>
- Etzkowitz, H. (2004). The evolution of the entrepreneurial university. *International Journal of Technology and Globalisation*, 1(1), 64–77. <https://doi.org/10.1504/IJTG.2004.004551>
- Etzkowitz, H., de Mello, J. M. C., & Almeida, M. (2005). Towards 'meta-innovation' in Brazil: The evolution of the incubator and the emergence of a triple helix. *Research Policy*, 34(4), 411–424. <https://doi.org/10.1016/j.respol.2005.01.011>
- Etzkowitz, H., & Leydesdorff, L. (1997). Introduction to special issue on science policy dimensions of the triple helix of university–industry–government relations. *Science and Public Policy*, 24(1), 2–5. <https://doi.org/10.1093/spp/24.1.2>
- wEtkowitz, H., Ranga, M., Benner, M., Guarany, L., Maculan, A. M., & Kneller, R. (2008). Pathways to the entrepreneurial university: Towards a global convergence. *Science and Public Policy*, 35(9), 681–695. <https://doi.org/10.3152/030234208X389701>
- Fayolle, A., & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial Attitudes and intention: Hysteresis and persistence. *Journal of Small Business Management*, 53(1), 75–93. <https://doi.org/10.1111/jsbm.12065>
- Flick, U. (2002). *An introduction to qualitative research* (2nd ed.). Sage.
- Goddard, J., Coombes, M., Kempton, L., & Vallance, P. (2014). Universities as anchor institutions in cities in a turbulent funding environment: Vulnerable institutions and vulnerable places in England. *Cambridge Journal of Regions, Economy and Society*, 7(2), 307–325. <https://doi.org/10.1093/cjres/rsu004>
- Goddard, J., Hazelkorn, E., Kempton, L., & Vallance, P. (eds.). (2016). *The civic university: The policy and leadership challenges*. Edward Elgar.
- Guerrero, M., Cunningham, J. A., & Urbano, D. (2015). Economic impact of entrepreneurial universities' activities: An exploratory

- study of the United Kingdom. *Research Policy*, 44(3), 748–764. <https://doi.org/10.1016/j.respol.2014.10.008>
- Guerrero, M., Urbano, D., Cunningham, J., & Organ, D. (2014). Entrepreneurial universities in two European regions: A case study comparison. *Journal of Technology Transfer*, 39(3), 415–434. <https://doi.org/10.1007/s10961-012-9287-2>
- Guerrero, M., Urbano, D., & Herrera, F. (2019). Innovation practices in emerging economies: Do university partnerships matter? *Journal of Technology Transfer*, 44, 615–646. <https://doi.org/10.1007/s10961-017-9578-8>
- Gunasekara, C. (2006). The generative and developmental roles of universities in regional innovation systems. *Science and Public Policy*, 33(2), 137–150. <https://doi.org/10.3152/147154306781779118>
- Harrison, J., & Turok, I. (2017). Universities, knowledge and regional development. *Regional Studies*, 51(7), 977–981. <https://doi.org/10.1080/00343404.2017.1328189>
- Instituto Brasileiro de Geografia e Estatística (IBGE). (2017). Retrieved from www.ibge.gov.br. Accessed October 2017.
- Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). (2018). *Censo da Educação Superior 2017*. INEP. Retrieved from <http://portal.inep.gov.br/web/guest/censo-da-educacao-superior>
- Isaksen, A., & Trippel, M. (2017). Exogenously led and policy-supported new path development in peripheral regions: Analytical and synthetic routes. *Economic Geography*, 93(5), 436–457. <https://doi.org/10.1080/00130095.2016.1154443>
- Jenson, J., & Harrison, D. (2013). *Social innovation research in the European Union. Approaches, findings and future directions* (Policy Review, WILCO Project Working Paper). Retrieved from https://ec.europa.eu/research/social-sciences/pdf/policy_reviews/social_innovation.pdf
- Jones, D., & Patton, D. (2018). An academic challenge to the entrepreneurial university: The spatial power of the ‘Slow Swimming Club’. *Studies in Higher Education*. <https://doi.org/10.1080/03075079.2018.1534093>
- Juliani, D. P., Silva, A., Cunha, J., & Benneworth, P. (2017). Universities’ contributions to sustainable development’s social challenge: A case study of a social innovation practice. *International Journal of Social Ecology and Sustainable Development*, 8(3), 1–18. <https://doi.org/10.4018/IJSESD.2017070101>
- Kirby, D. A. (2006). Creating entrepreneurial universities in the UK: Applying entrepreneurship theory to practice. *Journal of Technology Transfer*, 31(5), 599–603. <https://doi.org/10.1007/s10961-006-9061-4>
- Kirby, D. A., Guerrero, M., & Urbano, D. (2011). Making universities more entrepreneurial: Development of a model. *Canadian Journal of Administrative Sciences*, 28(3), 302–316. <https://doi.org/10.1002/cjas.220>
- Korosteleva, J., & Belitski, M. (2017). Entrepreneurial dynamics and higher education institutions in the post-Communist world. *Regional Studies*, 51(3), 439–453. <https://doi.org/10.1080/00343404.2015.1103370>
- Lockett, A., & Wright, M. (2005). Resources, capabilities, risk capital and the creation of university spin-out companies. *Research Policy*, 34(7), 1043–1057. <https://doi.org/10.1016/j.respol.2005.05.006>
- MacKenzie, N., & Zhang, Q. (2014). A regional perspective on the entrepreneurial university: Practices and policies. In A. Fayolle, & D. Redford (Eds.), *Handbook on the entrepreneurial university* (pp. 188–206). Edward Elgar.
- Marques, P., Morgan, K., & Richardson, R. (2018). Social innovation in question: The theoretical and practical implications of a contested concept. *Environment and Planning C: Politics and Space*, 36(3), 496–512. <https://doi.org/10.1177/2399654417717986>
- Martin, R. L., & Osberg, S. (2007). Social entrepreneurship: The case for definition. *Stanford Social Innovation Review*, Spring, 27–39.
- Moulaert, F., Martinelli, F., González, S., & Swyngedouw, E. (2007). Introduction: Social innovation and governance in European cities: Urban development between path dependency and radical innovation. *European Urban and Regional Studies*, 14(3), 195–209. <https://doi.org/10.1177/0969776407077737>
- Mulgan, G. (2006). The process of social innovation. *Innovations: Technology, Governance, Globalization*, 1(2), 145–162. <https://doi.org/10.1162/itgg.2006.1.2.145>
- Neves, C. E. B. (2017). Higher education systems and institutions, Brazil. In J. C. Shin, & P. Teixeira (Eds.), *Encyclopaedia of international higher education systems and institutions*. Springer. https://doi.org/10.1007/978-94-017-9553-1_401-1
- OECD PISA (Programme for International Student Assessment). (2018). *Brazil – Country Note – PISA 2018 Results*. Retrieved from https://www.oecd.org/pisa/publications/PISA2018_CN_BRA.pdf. Accessed on 30 December 2018
- Piccaluga, A. (2006). Variety and miracles for successful regional innovation policies: From ‘copy and paste’ to ‘copy and paste special’. In Cooke, P., & Piccaluga, A. (Eds.), *Regional development in the knowledge economy* (pp. 272–277).
- Pol, E., & Ville, S. (2009). Social innovation: Buzz word or enduring term? *Journal of Socio-Economics*, 38(6), 878–885. <https://doi.org/10.1016/j.socec.2009.02.011>
- Power, D., & Malmberg, A. (2008). The contribution of universities to innovation and economic development: In what sense a regional problem? *Cambridge Journal of Regions, Economy and Society*, 1(2), 233–245. <https://doi.org/10.1093/cjres/rsn006>
- Pugh, R. (2017). Universities and economic development in lagging regions: ‘triple helix’ policy in Wales. *Regional Studies*, 51(7), 982–993. <https://doi.org/10.1080/00343404.2016.1171306>
- Pugh, R., Hamilton, E., Jack, S., & Gibbons, A. (2016). A step into the unknown: Universities and the governance of regional economic development. *European Planning Studies*, 24(7), 1357–1373. <https://doi.org/10.1080/09654313.2016.1173201>
- Pugh, R., Soetanto, D., Jack, S. L., & Hamilton, E. (2019). Developing local entrepreneurial ecosystems through integrated learning initiatives: The Lancaster case. *Small Business Economics*. <https://doi.org/10.1007/s11187-019-00271-5>
- Rapini, M. S., Albuquerque, E. d. M., Chave, C. V., Silva, L. A., De Souza, S. G. A., Righi, H. M., & Da Cruz, W. M. S. (2009). University–industry interactions in an immature system of innovation: Evidence from Minas Gerais, Brazil. *Science and Public Policy (SPP)*, 36(5), 373–386. <https://doi.org/10.3152/030234209X442016>
- Rapoza, K. (2017). *Brazil is the Worst Economy in Latin America*. World Bank. Retrieved from <https://www.forbes.com/sites/kenrapoza/2017/06/06/world-bank-brazil-is-the-worst-economy-in-latin-america/#7d2d3dcb29f0>. Accessed: 04 Sep. 2017
- Santos, M. L. L., Schmidt, S., Bohnenberger, M. C., & Schreiber, D. (2017). Cultura e governança nas relações interorganizacionais: Um estudo de caso do cluster calçadista do Vale dos Sinos. *Perspectivas Contemporâneas*, 12(2), 131–151.
- Simons, H. (2009). *Case study research in practice*. Sage.
- Smith, H. L. (2007). Universities, innovation, and territorial development: A review of the evidence. *Environment and Planning C: Government and Policy*, 25(1), 98–114. <https://doi.org/10.1068/c0561>
- Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, 41(1), 49–72. <https://doi.org/10.1111/etap.12167>
- Svensson, P., Klofsten, M., & Etkowitz, H. (2012). An entrepreneurial university strategy for renewing a declining industrial city: The Norrköping Way. *European Planning Studies*, 20(4), 505–525. <https://doi.org/10.1080/09654313.2012.665616>

- Tavares, S. M. N. (2009). Governança em universidades confessionais no Brasil: Modelo em construção. *Educação and Linguagem*, 12(19), 219–238. <https://doi.org/10.15603/2176-1043/el.v12n19p219-238>
- Thomas, E., Vieira, L. M., & Balestrin, A. (2017). Mind the gap: Lessons from the UK to Brazil about the roles of TTOs throughout collaborative R&D projects. *BAR – Brazilian Administration Review*, 14(4). <https://doi.org/10.1590/1807-7692bar2017170048>
- Tripl, M., Sinozic, T., & Lawton Smith, H. (2015). The role of universities in regional development: Conceptual models and policy institutions in the UK, Sweden and Austria. *European Planning Studies*, 23(9), 1722–1740. <https://doi.org/10.1080/09654313.2015.1052782>
- Uyarra, E. (2010). Conceptualizing the regional roles of universities. Implications and contradictions. *Entrepreneurship and Regional Development*, 18(8), 1227–1246. <https://doi.org/10.1080/09654311003791275>
- Van der Have, R. P., & Rubalcaba, L. (2016). Social innovation research: An emerging area of innovation studies? *Research Policy*, 45(9), 1923–1935. <https://doi.org/10.1016/j.respol.2016.06.010>
- World Bank. (2018). *Public Policy Notes – Towards a fair adjustment and inclusive growth*. Retrieved from <http://www.worldbank.org/pt/country/brazil/brief/brazil-policy-notes>. Accessed 4 September 2018.
- Wright, M., Clarysse, B., Mustar, P., & Lockett, A. (2007). *Academic entrepreneurship in Europe*. Edward Elgar.
- Yin, R. (2018). *Case study research and applications: Design and methods*. Sage.
- Zhang, Q., Larkin, C., & Lucey, B. M. (2017). The economic impact of higher education institutions in Ireland: Evidence from disaggregated input–output tables. *Studies in Higher Education*, 42(9), 1601–1623. <https://doi.org/10.1080/03075079.2015.1111324>