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EDITORIAL



Universities, knowledge and regional development

John Harrison^a  and Ivan Turok^b

ABSTRACT

Universities, knowledge and regional development. *Regional Studies*. The rapid expansion of universities and other higher education institutions (HEIs) around the world in recent decades has been followed by growing scrutiny of their role in knowledge production and regional development. This editorial and the papers in the accompanying theme issue reflect on the importance of placing universities at the centre of regional analysis. They examine why analysis of the stresses and strains permeating universities, knowledge production and regional development continues to provide fertile terrain for researchers in which to participate in important intellectual endeavours. Finally, they highlight the value of regional researchers asking the same demanding questions of the institutions in which they work as they do of other sectors of the economy and society.

KEYWORDS

universities; higher education; knowledge production; regional development

摘要

大学、知识与区域发展。*Regional Studies*。近数十年来，大学和其他高等教育机构（HEIs）在全世界迅速扩张，并伴随着对其在知识生产与区域发展中的角色探讨的增加。本编辑评论和接下来的专题文章，反映出将大学置于区域分析核心的重要性。这些文章检视，为何对于弥漫在大学、知识生产和区域发展的压力及负担进行分析，能够持续为研究者提供参与至重要知识努力的丰富领域。最后，这些文章强调区域研究者对于其工作机构质问如同他们对其他经济与社会部门进行探讨的高要求问题之价值。

关键词

大学；高等教育；知识生产；区域发展

RÉSUMÉ

Les universités, la connaissance et l'aménagement du territoire. *Regional Studies*. Suite au développement rapide des universités et des autres établissements d'enseignement supérieur à travers le monde au cours des dernières décennies, on a prêté une attention accrue à leur rôle quant à la production de la connaissance et à l'aménagement du territoire. Cet éditorial-ci et les articles qui figurent dans le numéro thématique considèrent l'importance de situer les universités au cœur de l'analyse régionale. Ils examinent les raisons pour lesquelles les pressions qui se répandent parmi les universités, la production de la connaissance et l'aménagement du territoire continuent de fournir un terrain favorable aux chercheurs où ils peuvent participer à d'importantes démarches intellectuelles. Pour terminer, ils soulignent la valeur des chercheurs régionaux qui posent les mêmes questions difficiles aux établissements où ils travaillent qu'ils posent aux autres secteurs de l'économie et de la société.


MOTS-CLÉS

universités; enseignement supérieur; production de la connaissance; aménagement du territoire


ZUSAMMENFASSUNG

Universitäten, Wissen und Regionalentwicklung. *Regional Studies*. Die rasche Expansion von Universitäten und anderen Hochschulen in aller Welt während der letzten Jahrzehnte hat zu einer wachsenden Untersuchung ihrer Rolle in der

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Wissenserzeugung und Regionalentwicklung geführt. In diesem Leitartikel und den Beiträgen der begleitenden thematischen Ausgabe wird die Bedeutung einer Platzierung von Universitäten in den Mittelpunkt der regionalen Analyse erörtert. Untersucht wird, warum die Analyse der Belastungen und Spannungen für Universitäten, Wissenserzeugung und Regionalentwicklung weiterhin einen fruchtbaren Boden für das bedeutsame geistige Streben der Forschung darstellt. Zuletzt wird der Nutzen von Regionalwissenschaftlern hervorgehoben, die an die Institutionen, in denen sie beschäftigt sind, dieselben anspruchsvollen Fragen stellen wie an andere Sektoren der Wirtschaft und Gesellschaft.

SCHLÜSSELWÖRTER

Universitäten; höhere Bildung; Wissensproduktion; Regionalentwicklung

RESUMEN

Universidades, conocimiento y desarrollo regional. *Regional Studies*. La rápida expansión de universidades y otras instituciones de educación superior en todo el mundo en las últimas décadas ha llevado a un creciente escrutinio de su papel en la producción de conocimiento y el desarrollo regional. En este editorial y los artículos en la publicación temática complementaria se refleja la importancia de situar las universidades en el centro del análisis regional. Se examina por qué el análisis del estrés y las tensiones que penetran en las universidades, la producción de conocimiento y el desarrollo regional sigue siendo un terreno abonado en el que los investigadores pueden participar en importantes iniciativas intelectuales. Finalmente, se pone de relieve el valor de los investigadores regionales que plantean las mismas preguntas complejas sobre las instituciones en las que trabajan al igual que en otros sectores de la economía y la sociedad.

PALABRAS CLAVES

universidades; estudios superiores; producción de conocimiento; desarrollo regional

JEL I2, I24, I25, I28, R58

HISTORY Received 21 April 2017; in revised form 5 May 2017

The rapid expansion of universities and other higher education institutions (HEIs) around the world in recent decades has been followed by growing scrutiny of their roles and responsibilities. The long-established tradition of universities being treated as sites of privileged seclusion and separation from the practical realities of their regions and nations has been replaced by more purposeful perspectives. Put simply, the various stakeholders in universities expect a more direct return on their investment.

Fortunately, universities have much to offer since knowledge and human capital now constitute crucial drivers of prosperity, inclusion and territorial development. Their contributions to wider forms of social enquiry, environmental innovation and critical reflection are also vital at a time of extraordinary challenges and risks facing regions and nations. Geographical proximity and embeddedness are big advantages for universities as agents of change promoting human interaction, transferring know-how, and building trust and common purpose among diverse actors and interests.

The rising expectations placed on universities have been met by far-reaching shifts in their internal culture, organization and leadership. There is much more extensive engagement of academics with the external business community, civil society and different parts of government. Active participation in wider national and international research, professional and advocacy networks is another sign that higher education has been overhauled. International satellite campuses and global competition for students and academic talent also signal a new dispensation.

The diverse pressures on universities have created many tensions and contradictions that are difficult to resolve. Stakeholders have different expectations that often pull in

contrary directions and challenge notions of academic freedom. Is research excellence more important than economic impact and social relevance? Does the national imperative of an educated citizenry outweigh the vocational requirements of employers? How can the competing demands of national, regional and local interests be reconciled? These dilemmas raise major issues of institutional autonomy, accountability and responsive governance.

These developments in higher education have naturally become the subject of burgeoning interest in regional studies. This research builds upon an established body of work on the relationship between universities, knowledge and regional development that dates back several decades (Figure 1). Key concepts have been introduced to illuminate different drivers and dynamics at work, including the 'triple helix' of university–government–industry relations (Etzkowitz & Leydesdorff, 2000), the 'learning region' (Keane Shaw & Allison, 1999; Maskell & Törnqvist, 2003), and 'regional innovation systems' (Benneworth, Pinheiro, & Karlsen, 2017).

Situating universities at the centre of regional analysis reinforces the rich intellectual history of a research community interested in the contribution of higher education to regional development (Bouche, Conway, & Van der Meer, 2003; Chatterton & Goddard, 2003; Goldstein & Renault, 2004; Florax, 1992; Thanki, 1999; Vallance, 2016). It is valuable in prompting regional researchers to ask the same demanding questions of the institutions in which they work that they usually ask of others sectors of the economy and society.

Posing these fundamental questions has become increasingly important as the spirit and purpose of universities has shifted. In an environment of increasing

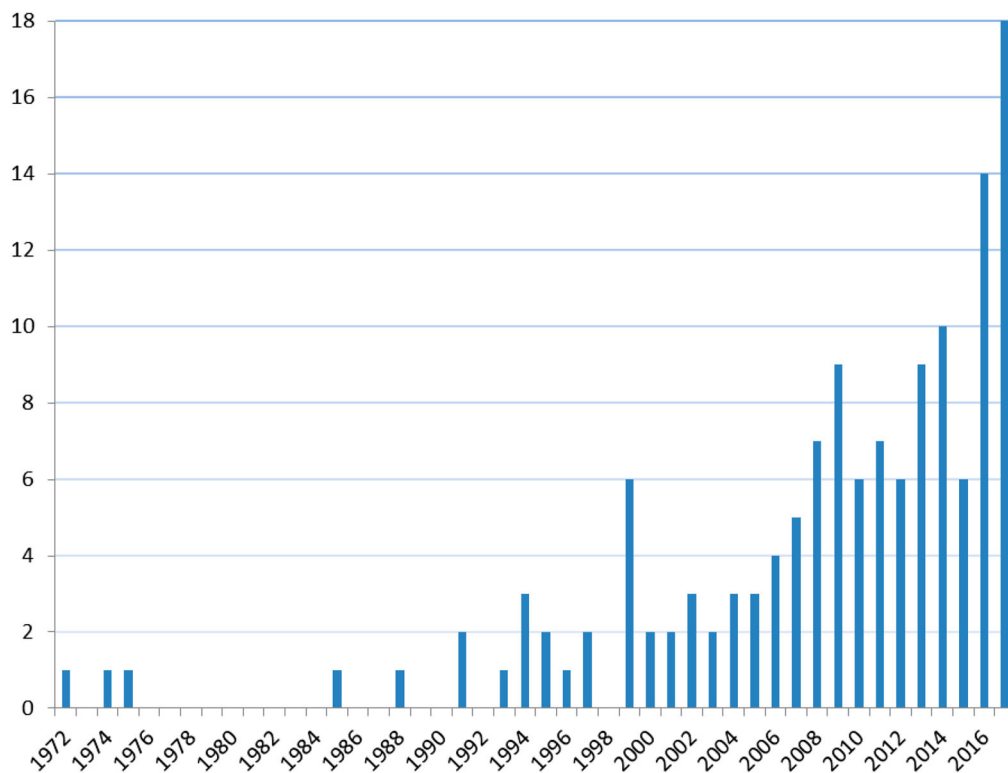


Figure 1. *Regional Studies* papers per volume with 'university', 'universities' or 'higher education' as a listed topic. Source: Web of Science.

competition for resources and financial austerity, all kinds of compromises and sacrifices to the core functions of universities are possible (e.g., Collini, 2012, 2017). Meanwhile, a rising international tide of populist sentiment and nostalgic nationalism threatens to crowd out enlightened thinking and technical expertise based on substantive research. Britain's impending exit from Europe could undermine all sorts of important scientific collaborations and student exchanges. South African universities have recently been destabilized by violent protests and associated challenges to their core value systems, financial models and established curricula.

These are simple examples of increasing uncertainty and volatility facing the higher education sector, with far-reaching impacts on the day-to-day research, teaching and public activities in which universities are engaged. Their responses to these issues are bound to have major ramifications for regional development and provide fertile terrain for researchers to participate in important intellectual endeavours. Indeed, the papers in this theme issue extend and complement a growing body of regional research analysing the stresses and strains permeating universities, knowledge production and regional development.

Pugh (2016, in this issue) tests the argument that universities can stimulate regional development in weaker European regions by focusing on attempts to implement 'triple helix' policy in Wales. She builds upon research on universities and knowledge-intensive business services as sources of regional innovation in peripheral regions (Pinto, Fernandez-Esquinas, & Uyarra, 2015) and rural

locations (Johnston & Huggins, 2016). Pugh adopts a classic approach of stress-testing received wisdoms based on a few exemplar regions that get translated into policy orthodoxies portrayed as universal solutions. In this case it is 'learning regions' (see Keeble, Lawson, Moore, & Wilkinson, 1999, on Cambridge; and Saxenian, 1994, on Route 128 and Silicon Valley). Pugh argues that the triple helix may work well in exceptional regions with abundant world-class universities and knowledge-intensive firms. However, these are in thin supply in weaker regions, so policies connecting universities to regional development need to explore other possibilities. Political leaders need to understand that universities can perform many other roles alongside other organizations.

Larty, Jack, and Lockett (2016, in this issue) pursue the role of intermediaries in regional development by providing valuable evidence about the factors that create effective links between firms to facilitate new collaborations (see also Rantisi & Leslie, 2015, on HEIs as cultural intermediaries). Arguing that previous research has only looked at how intermediaries can expand existing knowledge-exchange networks, they adopt a resource-based view to examine how HEIs and regional government agencies can create and expand new networks. They conclude that while intermediaries' organizational resources provide a strong foundation, they are not sufficient to make the network a success. Key individuals also perform vital functions.

Research on the role of intermediaries, institutions and individuals is opening up a further stream of work looking at a new phase of alliance-building and knowledge

exchange at the regional scale. Cabanelas, Cabanelas-Omil, Lampón, and Somorrostro (2016, in this issue) seek to develop the governance aspect of knowledge networks by studying the impacts of different network characteristics on research performance in Spain. By investigating research groups (alliances among researchers) and research networks (alliances among research groups), they show how strong ties, a defined structure and social trust improve performance. They recommend that policy-makers strengthen ties by encouraging research network consolidation, incentivizing more formal agreements, and defining roles and functions better. They also warn that formalizing research networks should not prevent them from remaining flexible, being periodically renewed, and routinely assessed against their stated objectives.

The structure and governance of research networks is pursued by Harrison, Smith, and Kinton (2017, in this issue) when examining the rise of transregional university alliances in the UK. They are particularly interested in the emergence of new spatial imaginaries and regional identities resulting from organized research collaboration between major universities. Their analysis links to long-standing debates in regional studies over the concept of the region. It reveals a transition away from universities being recipients of top-down regionalization (i.e., placed within an existing template of fixed regions by the state) towards them becoming active agents shaping new rounds of regionalization with the state and other actors. These new spatialities of higher education praxis, and the processes of regionalization which underpin them, represent just the first step. The authors recognize that new expressions of regionalism are largely inconsequential if they cannot develop spatial integrity and a deeper-rooted sense of regionalism. They show how university collaboration is consolidating around six regional alliances, which could deepen existing uneven geographies within the higher education sector.

New regional imaginaries are also important in the paper by Li and Phelps (2016, in this issue), albeit at a much larger scale and adopting a more quantitative approach. Extending regional studies of polycentricity in inter-city economic and transport linkages (e.g., Hoyler, Kloosterman, & Sokol, 2008; Liu, Derudder, & Wu, 2016), the authors use publication databases to analyse knowledge production within the Yangtze River Delta (YRD) region of China and beyond. They show that the YRD's hinge role in knowledge collaboration is mainly at the national rather than at the global scale. Hence, the YRD still has some way to go to integrate with other knowledge-production systems. Nevertheless, international linkages for Shanghai are already stronger than regional linkages. Further internationalization of Chinese HEIs seems inevitable as expanding knowledge production is evidently a dynamic process in motion.

The next three papers extend this quantitative approach to the study of universities, knowledge and regional development. They shift from the research function of universities towards their other principal role as educators. The starting point for Nifo, Scalera, and Vecchione (2017, in

this issue) is the stark regional differences in student preferences for science, technology, engineering and mathematics (STEM) subjects vis-à-vis humanities and social sciences in Italian post-secondary education. An econometric investigation of over 80,000 graduating students reveals how the quality of regional institutions and the rule of law are statistically significant variables. These neglected factors warrant further research to understand students' higher education choices.

Frenkel and Leck (2017, in this issue) return to the question of whether HEIs can spur development in weaker regions. They revisit the fundamental institutional and spatial aspects of graduate employment. First, do universities equip graduates with the knowledge and skills to meet the needs of the labour market? Second, does the spatial mismatch between where students graduate and are subsequently employed result in a 'brain gain' for some regions and a 'brain drain' for others? Iammarino and Marinelli's (2015) recent study found that affluent northern regions of Italy benefit disproportionately from the investment in university education made in southern regions because of this process. Frenkel and Leck demonstrate that in Israel there is a stronger education-job match in STEM subjects than in the social sciences. This has important spatial and policy implications because graduates from universities in the southern region of Italy migrate to the core in much greater numbers than from universities in the northern region where there is a better supply of STEM-related jobs.

Hermannsson, Lisenkova, Lecca, McGregor, and Swales (2016, in this issue) consider the broader implications of higher education for regional development. They adopt a 'micro-to-macro' approach for assessing the system-wide impacts of two specific benefits from HEIs: technology spillovers and productivity spillovers in the labour market. In the context of increasing university tuition fees in England, they identify several methodological concerns about how existing research calculates the benefits of HEIs. They argue that by focusing too heavily on private market benefits, the true societal benefits are underestimated. The ramifications could be serious if the outcome is underinvestment in higher education. Their paper demonstrates the value of regional research in influencing public debates. It is also a useful reminder that practical matters of methods and data can be just as influential as theoretical concepts and ideas.

The final paper by Addie (2016, in this issue), in the Urban and Regional Horizons section, problematizes the external facing 'third mission' of universities beyond their research and teaching functions. Set within the context of critical urban theory, Addie debates how neo-liberalization and extended urbanization require reimagining the urban role of universities. The urban is a contradictory process characterized by multiple competing voices and interests, as is the modern university. Addie proposes a theoretical shift from the 'urban university' to 'universities in urban society'. In undertaking this manoeuvre, his aim is to move beyond the excessive place centrism in traditional work on the urban university to open up new terrain on which to

debate the internal/external, inclusive/exclusive, centralizing/decentralizing, top-down/bottom-up, place-based/process-led dynamics and contradictions which universities in urban society have to manage, mediate and negotiate.

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