

# Measuring the effects of the social rural university campus

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†Tribute to Paul: This article comes from a proposal we were working on with Paul when he died. David and Paul had worked together closely since 1996 when David employed Paul as a research associate and began to supervise his PhD. They worked together closely on many projects at Newcastle University until 2009 when they both moved to other universities, but still collaborated together. Kate first met Paul as a postdoc at the University of Agder in 2014. It was very much an interdisciplinary meeting: their interests overlapped and Paul took on the role of an unofficial mentor. During their collaboration from that time, which shadowed a number of interdisciplinary research projects, he patiently helped her through her first experiences of fieldwork and interviews. (In his calm response to a particularly nasty second review, he parsed what was useful and then stated ‘the rest is patronising tosh, and I don’t respond to patronising tosh’). We both very much miss his creative spirit, his energy, and his friendship.

## Abstract

There has been demand in many countries for the establishment of small campuses in more rural locations to spread the benefits of higher education both through the provision of university courses and through the positive economic spill-overs for these communities. Evaluations of the impacts of these universities according to current models show limited effects due to their small scale and specialization. Yet whilst there are clearly spill-over benefits from rural campuses into local communities, these are not only of the traditional (knowledge and economic) variety. Rather, regional campuses create social infrastructure that supports these places’ quality of life. This article seeks to develop a proposal for how such social impacts of regional campuses could be evaluated by creating a conceptual framework that articulates how university-region learning communities contribute to socio-economic development trajectories of rural regions. Our overarching hypothesis is that social rural campuses are places where local learning communities work with globally sourced knowledge to make it useful and usable in particular local contexts. Over time, these activities form the basis of regular contact networks, and the benefits they bring become woven into the provision of place-specific welfare services. As a result, the university’s contributions play a more structural role, and the students are involved in creating more lasting benefits by providing the interaction underpinning these structural collaborations. Our model is exemplified through an exploration of the context of the status of rural university campuses in Norway, and a case study of the Academy of Music, an outpost of the multi-campus University of Tromsø (UiT The Arctic University of Norway).

**Key words:** rural university; social impact; communities of practice; rural development

## Introduction

There has been great demand in many countries for the establishment of small campuses in more rural locations to spread the benefits of higher education both through the provision of university courses in areas with low levels of participation and through the positive economic spill-overs for these communities. Analysis of the traditional impacts of these universities shows limited effects due to the small scale and specialization (Charles 2016); however, there are clearly some spill-over benefits into local communities, but they are not spill-overs of the traditional (knowledge) variety, supporting economic innovation. Instead, they are ‘something else’, something that creates infrastructures supporting these places’ quality of life without necessarily driving purely economic growth.

Our diagnosis is that what is not currently understood in terms of this ‘something else’ are the mechanisms by which university knowledge could spill over in these more rural or peripheral regions in ways that would help contribute to socio-economic development trajectories. The nature of a rural or peripheral location may vary within and between countries but has usually implied a relative lack of higher education opportunities and a lower level of participation. Universities and campuses may usually be located in the largest town of a rural area but are intended to serve a region, which is typified by a more dispersed population. Even if these (usually) small campuses cannot offer a critical mass of technology-led research (Charles 2016), they do have students who work closely both with their teachers and (often because of these courses’ applied and/or vocational nature) local businesses and public services (Rokne 2019). University teachers provide global knowledge through their epistemic networks, local partners provide specific practical knowledge, and connected by student learning activities, these learning communities produce globally valid, locally useful knowledge. We claim a *prima facie* case that knowledge communities around these peripheral HEIs may form localized learning communities that support wider regional socio-economic development trajectories.<sup>1</sup>

Accordingly, our overall research question is: To what extent do Regional Higher Education Institutions (RHEIs) in remote or rural regions create local impact by mobilizing local learning communities? How could we assess this through the development of a framework for evaluating the impact on regional socio-cultural infrastructures?

To address this, we therefore seek to create a conceptual framework articulating how university-region learning communities could potentially contribute to socio-economic development trajectories of sparse rural regions, drawing upon case study material from University of Tromsø (UiT The Arctic University of Norway) to exemplify this, and then developing thoughts on how such social impacts could be evaluated.<sup>2</sup> We seek to demonstrate whether social rural campuses—if they indeed exist—are places where local learning communities work with globally sourced knowledge to make it useful and usable in particular local contexts. We suggest that over time, these occasional activities form the basis of regular contact networks, and the benefits they bring become wider than the particular educational need and become woven into the provision of place-specific welfare services. As a result, the university’s contributions play a more structural role in the place, and the students, even those that come and depart after study, are involved in creating more lasting benefits by providing the interaction underpinning these structural collaborations.

The next section develops a model of how the social rural campus might interact with its community and how it could be

evaluated. It draws on several literatures from economic geography, communities of practice (CoPs), and higher education studies to provide an integrated perspective. This model is then demonstrated in a particular Norwegian context following a short overview of the case study context. A discussion section then aims to connect the case back to the literature and examine how the model might be used in other contexts before drawing some final conclusions.

## The social rural campus

The focus of this article is what may be termed the social rural campus, the idea of a campus (probably not a full university), which is based in a rural region, usually in a small-to-medium-sized town and which plays an important social role within that community.

Our ambition with the notion of the social rural campus is to comprehensively reframe the urgent debate about universities’ contribution to the knowledge economy and to change the way that researchers, policymakers, and practitioners consider these contributions. This article presents a robust novel conceptual framework that articulates processes by which universities contribute to the knowledge economy, linking macro-processes of research creation and regional development to micro-practices of local knowledge creation in regional contexts. We apply an innovative, promising methodology (CoPs) to trace these multi-scalar links and to make a compelling argument for the delivery of these contributions. By close engagement with policymakers and practitioners throughout the research process, this article presents and exemplifies a model and a short case study that can be taken further to create actionable knowledge to empower users to maximize the contributions that small campuses make to more remote or rural regions.

There has been considerable development of theories of university regional engagement in recent years, with a notable broadening of the agenda from studies of industry engagement and technology transfer to a more holistic consideration of the full range of forms of engagement (Uyarra 2010) and its conceptualization as the ‘engaged university’ (Breznitz and Feldman 2012) or the ‘civic university’ (Goddard et al. 2016). A central issue of this body of work is that the university is more than just a passive knowledge provider but plays an active role in its region, not just responding to specific demands or creating spill-over knowledge, but working in partnership with regional stakeholders to anticipate needs and co-create local initiatives (Allison and Keane 2001; Watson et al. 2011). Whilst much of the literature on the entrepreneurial university (Guerrero et al. 2014; Compagnucci and Spigarelli 2020) sees this role in terms of economic development, and largely driven by university needs, the engaged university perspective sees a more altruistic responsibility, reflecting the role of the state in the provision of funding. As the US Kellogg Commission on the Future of State and Land-Grant Institutions (2000) put it, this is about ‘renewing the covenant’ between the universities and the public to advance the common good.

This implies going beyond collaboration with elite groups such as high-tech businesses or regional government agencies to collaboration with more disadvantaged groups where the university may provide resources that cannot be obtained elsewhere and may help to construct social capital through CoPs (Benneworth 2012). These issues are particularly germane in more peripheral areas where there may be weaker state institutions and where economies are lagging, although it could also apply to poorer areas of metropolitan

districts. Governments have been keen in recent years to encourage university campuses in the periphery and in rural regions as a means to support economic and social development (Charles 2016). However, such developments cannot really be evaluated using the same criteria as in the metropolitan core, partly because the absorptive capacity of the locality is weaker and different policies are needed, and partly because the nature of the university campus tends to be different from the main full-service research universities in core regions (Benneworth 2019).

We therefore propose a novel model explaining how university campuses in remote rural places might potentially contribute to maintaining welfare in these places, drawing together four distinct literatures from rural studies, economic geography, and innovation studies. The four literatures we draw upon relate to four stages of an argument demonstrating the importance of the social rural campus and building a rationale for the way in which socialised learning complements the formal learning of the academy in rooting the campus into the community. These four literatures relate to a fifth concept, that of the CoP. The CoP approach was initially developed to consider how teams dealing with ‘fuzzy’ problems build shared understandings through social interactions to solve those problems (Lave and Wenger 1991). Although early applications were cases such as a medical insurance call centre transferring phoned-in insurance information onto rigid forms, recently there has been a widespread acceptance that CoPs also usefully describe how university groups work (Amin and Roberts 2008; Gertner, Roberts and Charles 2011; Maxwell and Benneworth 2018). The model looks at emergent social interactions that support knowledge exchange and learning, namely mutual engagement, joint enterprise, and shared repertoire.

The first literature is fairly conventional for studies of university regional business engagement and explains the roles of universities in driving local development, through what Bathelt et al. (2004) called ‘global pipelines, local buzz’. This suggests that knowledge flows in regional clusters comprise local circulation of soft, often tacit, knowledge together with flows of more codified knowledge from global sources. Universities sit in two kinds of knowledge networks in parallel (Benneworth and Dassen, 2011): (1) wider epistemic communities via collaborative research and collective activities such as conferences and journals and (2) links with local partners who interact through more informal and social networks as well as through contracts (Christopherson and Clark 2010). Bathelt et al.’s model foresees a cross-fertilization between the two, and, in particular, that the wider epistemic activities can create intense local spill-overs that leave a more permanent imprint on the region by the creation of infrastructures (Korotka 2015). A typical activity in a social rural campus might be that of a ‘science shop’ that arranges for bachelor’s students to work on local citizens’ problems, interacting with their lecturer and the global knowledge community alongside local partners to create useful and locally actionable knowledge. Alternatively, individual academics might bring their global knowledge into informal networks with local partners. This prompts the first proposition:

P1: RHEIs draw on various external resources (from global pipelines) which they mediate into CoPs in remote and rural regions.

The second literature considers the dynamics of that ‘active bridging’ process, distinguishing different characteristics of global and local communities (Adoba-Sam 2019). There are both remote

structured conceptual communications with global partners (e.g. by publication or social media), and direct, interactive communications (e.g. informal problem-solving) with local partners. These two worlds are brought together in universities’ knowledge processes, where participants find ways to function as a single CoP with shared norms, values, and understandings to create mutually beneficial knowledge (Degn et al. 2018; Maxwell and Benneworth 2018). A social rural campus involves teachers, students, and local partners working together on shared projects, creating shared understandings; this shift might come via a local art-school end-of-year exhibition becoming a local cultural festival talked about by locals and media as belonging to the town and not exclusively the HEI. The crucial element here is the mechanism by which CoPs are formed, and this might be related more to the teaching process than to research collaboration. It is not formal classroom teaching that is important here but rather the interactions that may take place around the teaching process—workshops, presentations, performances, etc., in which students, staff, and community work together to co-create an event.

P2: RHEI teaching activities anchor CoPs in remote and rural regions.

The third literature considers the ways that transient learning activities can have a wider structuration effect to provide recurrent contributions to regional socio-economic development, inspired by Cooke’s (2005) ‘Globalization II’ model, which posits that regular interactions between knowledge producers and users create formal and informal institutions that support ongoing interactions. Although Cooke’s model focuses on technological developments in regional innovation systems, the institutionalization of temporary interactions becoming more enduring institutions also applies to non-technological innovations (Grabher 2004). Thomas (2016) applied it the Royal Welsh Show—a venue of annual interactions between farmers, suppliers, and consumers—that became a recurrent venue for agricultural knowledge sharing in rural Wales. A similar dynamic is apparent in business conferences, which play the role of temporary clusters supporting knowledge circulation (Henn and Bathelt 2015). Following Grabher, a structuration effect around a social rural campus might come through the ‘institutional memories’ of collaboration between organizations: university staff and local tourism may attune and plan their activities to best support the local cultural festival as a regional touristic landmark.

P3: RHEI-centred CoPs in remote and rural regions acquire recurrent characteristics.

The final literature concerns the ways that these infrastructures increase the external attractiveness of these places, whether as hard infrastructures such as an agricultural show or as softer infrastructures such as expertise in ‘slow cuisine’ (Hendriks et al. 2017). Evolutionary economic geography sees place success as being dependent on sustaining a pathway where external resources flow into the region (Boschma 2015).

Maintaining rural liveability can be considered in this perspective as a ‘path extension’ process (Isaksen 2015), in which outside investments continue to flow to regional assets, such as innovative forms of agriculture, new high value-added forms of tourism, energy production, or attracting new kinds of residents (Kurikka, Kolehmainen and Sotarauta 2018). In the social rural campus, institutions and infrastructures that develop outside investments that in

turn provide a local development impulse, such as festivals creating new tourism destinations or strengthening existing destinations, bring people and money to these rural places (Moscardo 2007).

P4: Regional assets anchored in RHEI teaching communities attract and leverage further external resources.

The four literatures above are integrated into a single conceptual framework to address our research questions. This model proposes how regional campuses, connected to global knowledge pipelines, could potentially create a local buzz through the operation of their teaching-based knowledge communities. This is summarized in Figure 1, which highlights the fact that there is a movement of knowledge between scales. This model envisages downscaling where, starting from global epistemic knowledge communications, locally rooted knowledge is created, is then embedded in regional communities, and is used in local learning processes. There is then a subsequent upscaling, where local knowledge leverages global value via path extension, with local knowledge activities creating local knowledge assets that in turn become attractive for external research flows.

The idea of the CoP is central to this model in that knowledge exchange is not conceptualized as a deliberative transfer of a piece of information from one person or organization to another but is a socialized process of sharing knowledge among people who are sharing in a common practice (Wenger 2000). Whilst much literature on knowledge exchange focuses on a codified piece of information, such as a patent, that might lead to the commercialization of a product, there is a much wider range of knowledge exchange interactions typically around social and cultural knowledge in which there is no product, but the communication of socialized knowledge, pure knowledge perhaps. There is also the related notion of co-creativity, which recognizes that knowledge is not just transferred,

but also created by participants together in various circumstances (Zeilig, West and van der Byl Williams 2018; Mittner, 2022). Some of this may be termed knowhow, ways of doing things, or may relate to activities without a commercial application. Communication of such tacit knowledge requires demonstration, joint working, and the sharing of experiences among those with common experiences of relevant practices.

Empirically, then, it is necessary to identify CoPs to see whether these are indeed creating common learning communities spanning societal and university partners, and we can establish integrated case studies tracing local development benefits back to learning activities via a threefold method.

- Micro: central to the CoP concept is the need to examine learning processes, tracing the dynamics of three features, mutual learning, joint enterprise, and shared repertoires, that allow the distinguishing of the community topology, which helps explain these local outcomes. These features of CoPs can be tracked by following the interactions between the community members, examining the nature of those interactions, and the ways in which shared repertoires are created and communicated.
- Meso: contextual interviews with societal and university partners can help to identify how these learning communities' recurrent features become formally or informally institutionalized in regional settings. CoPs that have developed informally may become institutionalized in various ways, either by regular meetings and sharing of practice, specific projects, or even through formal membership-based groups.
- Macro: these formal/informal networks can then be explored to identify mechanisms by which external resources (such as tourists, subsidies, research grants) are attracted, stimulating local development. A CoP might for example evolve into a festival

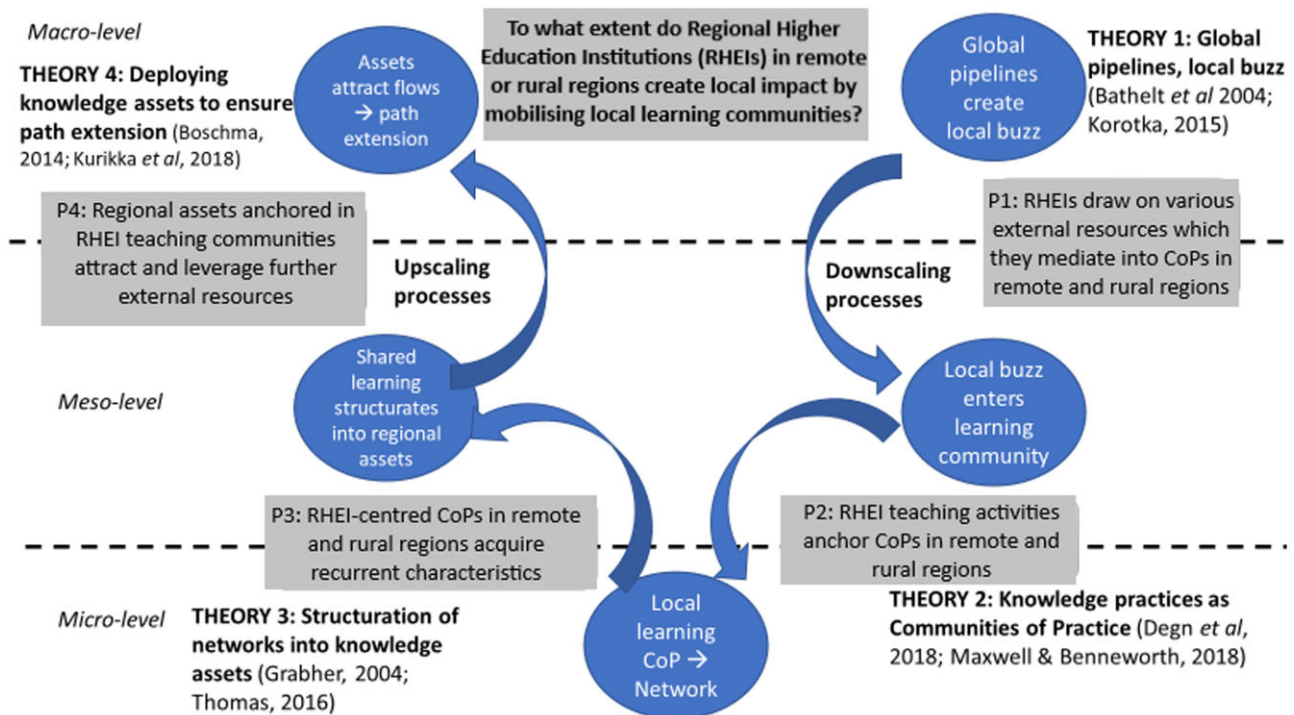


Figure 1. University-centred learning communities affecting rural development pathways.



programme committee, which then establishes a regular festival that attracts tourists to a location with consequent economic impacts on local tourism businesses.

In a social rural campus, a CoP might exist at the student cohort level around problem-based learning with local partners: mutual engagement comes through the student activities' relevance for local partners, joint enterprise comes in delivering shared solutions, and shared repertoires are forms of joint meaning that hold the group together.

To illustrate this model, a case study taken from UiT—The Arctic University of Norway is presented. This focuses on a small Academy of Music campus, detached from the main campus and located in a suburban location away from the town centre. Although not strictly rural, it is nonetheless a detached campus in a relatively small town in a highly remote location. It typifies some of the challenges faced by university campuses in more rural locations (often in the main towns of their regions rather than smaller villages) in the changing dynamics of higher education systems. It was chosen for two principal reasons. One is the practical: one of the authors of the study has worked there since 2015 and thus has been able to observe the interactions between the campus and the community over time. The other reason is one that we pick up again in our conclusion: the difficulty of observing interactions without destroying them. The discussion is therefore not based on results or data gathering per se, but instead on critical reflections on experiences and observations as a member of CoP both within the societal context and at the campus in question. Since the campus is in the field of the fine arts, the critical reflections naturally draw on methodologies of artistic research (Crispin 2019). First, some context on the Norwegian system is added by way of context and an introduction.

## The Norwegian context

Norway is a large country with a small population. At around 385,000 square kilometres and a population of 5.5 million, Norway is about the same size as Germany but with a population close to that of Scotland. Two more factors are important here. First, Norway is Europe's longest country, at around 1,750 km. Second, the Norwegian population is unevenly distributed, with most of the population located in the south of the country, and approximately 1.5 million living in the Greater Oslo region alone. Norway is thus a country made up of several urban centres—albeit all rather small on a global scale—with large and sparsely populated rural regions.

In terms of the HEI landscape, Norway has two principal classes. The first is that of the university, which are institutions that offer a wide range of subjects for study. The second is that of accredited *høgskoler*, or university colleges, which are smaller, more specialist institutions (there are also subcategories of university colleges: see NOKUT 2021). At the time of writing, the accreditation organ for Norway, NOKUT, lists 10 universities in Norway, and 22 accredited university colleges (NOKUT 2021).

In the past two decades, following the university reforms of 2003, Norway has seen a series of mergers between university colleges to attain university status (Mørland 2010). The Universities of Agder (2007), Stavanger (2005), The Norwegian University of Life Sciences (2005), Nord University (2010), The University of South-Eastern Norway (2018), and OsloMet (2018) have all been awarded university status in recent years. In addition to this, established universities

have merged with smaller institutions. One of several examples of this is the University of Tromsø's merger first with the former university college in Tromsø in 2009 (which had itself previously merged with the Nordnorsk Musikkonservatoriet, the North Norwegian Conservatoire, in 1994), and then with the former university colleges in Alta (2013), Harstad (2016), and Narvik (2016). These last mergers led the university to change its name to UiT—The Arctic University of Norway, to remove the focus from the Tromsø area to the whole of the Norwegian Arctic region. (To give an idea of scale, the distance from Harstad to Alta is 537 km by road, and UiT also has a campus in Kirkenes, which is Norway's border town with Russia: the road distance from Alta to Kirkenes is 462 km.) The 2016 mergers brought enough students under UiT's auspices that it became (and remains) Norway's third largest university.

The Norwegian higher education landscape thus has rural campuses as an important part of its very make up. They are, additionally, a site of strong feelings, as has been witnessed by the battle that is still raging over Nord University's campus in Nesna, in Nordland. The former Høgskolen i Nesna (Nesna University College) merged with Nord University in 2016, and its closure (to be enacted in 2022) was announced by the university in 2019 to strong negative reactions from the local community (Lysfold and Nygård 2019). Since then, the debate has raged on both sides, with claims over the quality of the teaching and the sparse number of students on one side (Tønnessen 2021), and on the other side, the negative effects of the proposed closure on the local community (Meisjord 2021). 2021 in Norway was a general election year, and one of the main political parties, Senterpartiet (Centre Party), went to the polls in September with a strong focus on regional politics—and saving Nesna campus was one of their election promises (Lage 2021). The new government is a coalition between Arbeiderpartiet (Labour Party) and Senterpartiet, and they announced as part of their negotiations for working together in government that they would ask Nord University to ensure that Nesna would not be closed (Christiansen 2021). Whilst this was met with jubilation in the community, it raised important—and at the time of writing, unanswered—questions about government intervention and universities' autonomy (Svarstad 2021).

It is with this national climate and debates in the background, though with a less controversial case study, that in the next section we apply the proposed model of a social rural campus.

## Applying the model

2021 saw the 50th anniversary of the Academy for Music of UiT—The Arctic University of Norway. The Academy for Music, hereafter referred to as Konsen (its semi-official nickname used by the university and locals alike, after its Norwegian name Musikkonservatoriet), has around 100 students and over 50 academic staff. Although it is in the town of Tromsø, it is situated on the south of the island of Tromsøya, away from the main UiT campus, which is at the north of the island. Whereas much of UiT's student accommodation is on the north of the island, Konsen students are usually housed in the one area of student accommodation that is on the south. Although the actual distance between Konsen and main campus is not particularly far—Tromsøya is only 10 km long—between them lie the city centre, the airport, the bridge to the mainland and the Arctic cathedral, and Tromsø's tunnel network. Konsen's teaching takes place within its premises or in local concert venues, and it houses its own administration and library. (In other words, students do not have to travel to the main campus for



formation of CoPs and social benefits, an additional set of benefits are brought into focus, but these can also be connected to wider, long-term regional development processes. It can be argued that such social benefits are more likely to be the main gains in rural areas, although similar processes and benefits may also be seen in urban areas where the same kinds of processes can also take place. This approach does not, however, lend itself to neat standardized quantitative measurement, although as will be seen some numbers can be identified at different stages, however, these are not standardizable across cases. In the discussion, we therefore want to draw out lessons from the case study for the wider operationalization of the model.

As the model has four steps, each presented as a proposition, then each of these can be used to assess the progress of the socialized learning process, the characteristics needed for success, and the kinds of impacts that might be observed.

The first step (P1) is the incorporation of knowledge from global pipelines (Bathelt, Malmberg and Maskell 2004) into the local offering, which we may term a process of **downscaling**. This acknowledges that the presence of a university campus in a region brings in external knowledge, both embedded in the experiences of academic staff, but also continually renewed through their engagement and practice within wider academic epistemic networks (Cohendet et al. 2014). A core characteristic of the academic is the connection both to the local academic institution and to their virtual disciplinary tribes (Becker and Trowler 2001), sometimes formalized through visiting positions in other countries and maintained through conferences and other networks. In this sense there is an enhanced potential where a campus and academic community is internationally oriented, bearing in mind that this is only realized through subsequent local engagement (Benneworth and Hospers 2007). It is assumed that an internationally oriented academic might have more to contribute than one who is very locally focused as they have the potential to bring new ideas and practices into local CoPs. Whilst CoPs are vehicles for learning they can also be stultifying without a flow of new members with new knowledge, entering through what is termed legitimate peripheral participation (Wenger 2000). So, this downscaling process requires the application of new external knowledge alongside the development of, and participation in, CoPs involving the community. Measurement therefore may focus on the international orientation of the campus—origins of staff and students, level of expertise and research engagement of staff, and continual engagement in international knowledge exchange. This must be placed alongside engagement in CoPs, so the campus is not seen as some kind of ivory tower plugged into the global pipelines but not the local buzz. In the Kosen example, the fact that a significant proportion of the performance staff live outside of Tromsø and are engaged part-time at UiT and part-time with professional ensembles or as freelance performers (in addition to the time devoted to artistic research that is part of their university job description) means that there is a continual knowledge exchange on both the regional and national (often international) levels.

To give another example of this from a very different region, Heriot Watt's School of Fashion and Design is based in Galashiels in the Scottish borders but with programmes also in the University's Dubai campus, and the school deliberately encourages collaboration and joint working between staff and students across the two campuses in very different global contexts. So, the work in Galashiels, emerging from a century old tradition of supporting the local woollen industry, but with a strong sense of innovation in a UK context,

is connected with cutting edge fashion from the Middle East as well, in addition to the other national and international connections the school has.

The crucial issue in this application of global pipeline theory is that the university campus has the global connections, is engaged in international collaborative research, and the staff participate in international activities. Reviews of rural campuses suggest that some struggle to attract the best researchers and the complexity of job roles in smaller institutions leaves limited time for research (Wolfe and Strange 2003). The successful social rural university therefore has to have evolved a strategy that reinforces the position of research specialization, which is not always the case in rural branch campuses (Charles 2016).

The second step relates to the use of teaching activities to anchor the CoPs and may be termed **anchoring** (P2). Here the focus is on the use of student-related activities to support and reinforce CoPs and ensure the university is strongly linked with the local society, both directly through the work of locally based students and through their interactions with local community partners. This form of interaction is usually described as service-learning and is relatively common in the USA, less so in Europe, but seems to be increasing. It is a form of pedagogy where the student takes their academic skills into the community where they can be applied for community benefit (Vogelgesang and Astin 2000). In the Kosen case, we see students performing alongside community members or doing supply teaching in local music schools, and students specializing in music education undertake their professional experience in local mainstream schools. Many disciplines have some element of professional practice where students do part-time work in their professional settings and become enculturated in those professional communities. There is a two-way process, however, as students and their teachers introduce new ways and skills into those practices, as well as acquiring existing practices. In disciplines without strong professional associations, the student engagement may take place through student community projects. Here, the experience of the Dutch Science Shops is instructive as students work with community groups in undertaking research projects to address community needs (Wachelder 2003).

The students thus can be seen as boundary spanners, members of the university/academic CoP (Degn et al. 2018), but also as legitimate peripheral participants (Wenger 2000) in the CoPs outside of the institution in a similar manner to the Knowledge Transfer Partnerships examined by Gertner, Roberts and Charles (2011). Through simultaneous membership of both CoPs, the students provide an effective mechanism for two-way knowledge transfer through buzz.

Here, then, the measurement activity may focus on the proportions of students engaged in different forms of community activity either formally within their educational programmes or through voluntary activities. The challenge for the university is to try to connect these activities to areas of expertise within the university as well as to the CoPs within the community.

The third step is the **institutionalization** of CoPs into long-lasting assets (P3), and this might take the shape of some form of association, a regular event such as an annual festival, or the formalization of student placements into an annual programme. This is intended to go beyond the normal reification of knowledge within a CoP: the production of artefacts, stories, and events that reflect the shared experience (Wenger 2000). This could be some kind of formal body or activity as opposed to the informal nature of the CoP. An epistemic community could provide the 'plumbing' or ecology for a series of projects within which learning takes place, in what Grabher (2004)

terms communiality—lasting intense ties, based on common history, with strong trust relationships. The key point here is that, rather than being a one-off event, a commitment develops, which ensures a deepening of the learning and hence impact. In the Konsen case, this is illustrated by the formation of ensembles and founding and/or participating in annual music festivals. This phenomenon has not been extensively studied other than work on projects (such as Grabher 2004) and exhibitions such as Thomas' (2016) work on the Royal Welsh Show and is the most novel aspect of this framework. As Thomas argues, the regular—if only annual—interactions between actors through a shared event can help to sustain a CoP and promote ongoing learning.

Our initial observations of this process in our case study need to be replicated elsewhere to develop the conceptual understanding as well as to develop appropriate indicators. Measurement of such institutionalization is difficult and instead examples should be identified, although once identified the scale of engagement can be monitored—such as how many people from the university and community are involved—the geographical reach in terms of membership can be mapped, and the connectedness through social networks can also be mapped.

Finally, the **upscaling** step of the process takes us back to the conventional macro-level analysis of university impacts by looking at the attraction of external resources and outcomes (P4). If the institutionalized CoPs generate events, for example, we can include the economic impacts of these in conventional university impact studies (Blackwell, Cobb and Weinberg 2002), even though such studies may be criticized as politically manipulable depending on the assumptions made (Crompton 2006). In our examples of cultural networks and events, this can be seen in the form of attracting visitors to the area to participate in a festival, with the concomitant impacts on the travel and hospitality industries, as well as on the external profile for the region through media and personal recommendations (Moscardo 2007). Here, we perhaps need to consider the difference between an event wholly hosted by the university and one hosted in the community with university involvement. Whilst there is no reason why a university might not organize a concert or create a museum or art gallery, and these might attract some visitors from outside the region, the added weight of working with the community and a range of external funders and promoters may create much more impactful events and attractions. Similarly, the university may add value to a community-initiated event and increase its attractiveness. In a highly competitive cultural tourism market, then, the joint endeavour could be considered to have an advantage. In the Konsen context, there is a very simple financial benefit for tourists and locals alike to take into account here: concerts organized by the university are free and those organized by the community with high student involvement are priced as low as possible. In a region that attracts a high number of tourists, often on a tight budget in one of the world's most expensive countries, the chance to attend a free concert by next year's professionals in a venue that usually charges an entry fee often comes as an extremely pleasant surprise. In addition, when students are members of established bands/ensembles with local followings, their (free) exam recitals can be standing room only. This kind of impact is difficult to measure on a financial scale, but monitoring of attendance, as well as more altmetric monitoring such as an overview of social media hashtags and trends (Tahamtan and Bornmann 2020), would give an indication of both local and broader impact.

Looking beyond cultural events and the attraction of tourists, what other forms of upscaling are feasible? Another form of external resource may be investment—funding from government for innovative public services, or private investment in businesses, which emerge from or engage with the CoP. For any such external resource input some estimation of the benefit arising from the university engagement should be possible, although it requires close investigation of the individual cases rather than the inferred assumption of multiplier effects from university spending. Rarely would such impacts emerge from the standard multiplier methods anyway, as they are not usually linked to university spending, or to university income streams such as revenues from licensing technologies or selling stakes in spinoff companies. The social rural campus model is a challenge to conventional university impact assessment not as an exception to the rule, but more to point out that the rule has been developed from exceptional cases of large research-oriented universities in metropolitan centres, and cannot simply be applied to all universities.

## Conclusions

The focus of this article has been to look beyond conventional university impact studies to examine how we can identify and measure the 'something else' that universities add to their communities, especially in those smaller rural campuses that lack the scale and big science which it is assumed leads to economic spill-overs. These other kinds of impacts and engagements are often linked with elusive, social relationships, and as such their evaluation may carry some risks—how do we measure their effects without destroying them or getting in the way of the activity? Over-analysis could lead to attempts to change the dynamics of CoPs in ways that are detrimental, yet it is also important to learn from what works in particular situations to pass on the lessons to other places. Studies that continue to focus on economic multipliers and patents will miss a set of other important impacts with the result that they are undervalued and could be inadvertently (or ill-advisedly) closed down by changes in university management.

It is argued that having a better conceptualization of the processes by which positive effects are induced is central to sensitive measurement. In the model of the social rural campus, a central place is given to the social interactions in CoPs. What is important is not knowledge as bits of information passed over an organizational boundary, but socialized and integrated processes of collective learning, often through intensive interaction over time. What information may be needed by the community need not necessarily be identified a priori, but instead discovered through long-term interaction. It is the process of that interaction which is what matters, and impacts are emergent. Measurement thus needs to be part of a self-awareness of the academic participants, but not an iron cage (DiMaggio and Powell 1983) that is imposed from above and might redirect efforts to those things that can be more easily measured.

This presents a challenge for both researchers and policymakers who have traditionally focused on formal measurements of economic value or business engagement as way of valuing the contribution of a university to its community. By the conventional measurement of economic output, small rural campuses have limited local impact, and focusing on patent licences or research contracts might suggest that such campuses have little to contribute as neither they nor the



surrounding community are science intensive. So, impact evaluation studies need to be reframed to focus on the contributions that can be made rather than those that may be easier to measure. It suggests a change of approach from the reliance on a few economic or codifiable indicators to the assessment of a social process and the dynamics of the interactions between academics, students, and community practitioners. Practically, we need more detailed process studies that focus on how to maximize the community benefits of CoPs, where the outcomes may be highly heterogeneous rather than a standardized model of a spinoff firm.

For university managers and policymakers, though, there is a need to recognize that the community benefit is an important aspect of these campuses in addition to the individualized benefit to each student. Whilst each student benefits from their experience of higher education, the model of the social rural campus seeks to identify how the community can benefit alongside the student, where the student becomes an additional route of wider community value creation through knowledge exchange, promoting learning among community members, building social capital and community resilience, and ensuring some continuing benefit even if the student then leaves the region on graduation, as many do. The benefits can be seen through rather more convoluted logic chains than are usually applied in evaluation and impact studies, but policymakers need to make the investment to identify the connections in these logic chains as a counter to the neoliberal emphasis on individualized benefits and costs.

The difficulty in many national HE systems is that university managers have to be aware of and are often driven by competition measured in terms of funding for student numbers, and international performance rankings. This has led to pressure on rural campuses that struggle to match the metrics of the big urban universities. In some cases, rural satellite campuses have been scaled back or even closed as a consequence, with no consideration for the community social impact. Policymakers and university managers together need to take a wider perspective, and we argue that the approach set out in this article can help in that journey.

The social rural campus model thus offers a way to conceptualize a different set of interactions and impacts for universities on their communities, which could be especially helpful in small rural campuses, perhaps especially (though certainly not exclusively) those with a cultural orientation. In this article, we have explored how it might be implemented via a case study from Norway, which has allowed us to exemplify the key processes, but more work is needed to experiment with this approach in other contexts and locations, and working across a range of disciplines.

## Notes

1. In this article, we use the terms 'rural', 'remote', and 'peripheral', not exactly interchangeably but rather according to the context, to designate different kinds of locations that are outside of large urban centres.
2. The theoretical underpinnings and model presented in this article were to be submitted as a research project proposal to the Norwegian Research Council in May 2020, with Paul as PI, Kate (co-author here) as deputy manager, and David (also co-author) as part of the project team. As Paul died whilst the proposal was being finalized, the planned project did not take place, so here we present the model and one of the case studies that inspired it.

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