Northumbria Research Link

Northumbria University NEWCASTLE

UniversityLibrary

All hubs and no spokes? Exploring the potential of hubs to sustain rural and regional development

Gary Bosworth [ORCID]
Northumbria University, Newcastle-upon Tyne, UK

Koen Salemink
University of Groningen, Netherlands

Abstract
In the arena of rural development, a number of initiatives have adopted the idea of a hub to deliver improved services, promote business development and support local communities. This editorial sets out the rationale for a Special Issue that seeks to understand the additional value that hubs can provide. In particular, we assess their overlapping social and economic goals and the implications for networks and strategies to create, develop and sustain successful hubs. Additionally, we explore opportunities for innovation and new collaborations among different types of hubs with different organisational models and conceptualise how best to develop the 'spokes' that are essential for connecting hubs to both their local communities and to wider stakeholders.

Keywords
hubs, rural development, rural innovation, local networks

All hubs and no spokes? Exploring the potential of hubs to sustain rural and regional development

This editorial introduces a Special Issue that examines why 'Hubs' of various types have become so pervasive in regional development, innovation and local economic policy-making (see, for example, Dovey et al., 2016; Price et al., 2018; Rundel et al., 2020). The selection of articles herein allows us to explore different interpretations of 'hubs' across different places and different types of activity. Through such analysis, the goal of the Special Issue is to identify opportunities for greater complementarity and collaboration among hubs, including the potential for cross-sector, multi-activity hubs to support a range of rural development objectives. Addressing the question in the title, we also examine the prevalence of hubs in relation to the connections that they make as 'no hub should exist as an island' (Goodwin-Hawkins et al., this issue). A key function of any hub is to connect people, places and organisations in ways that promote

Corresponding author:
Gary Bosworth, Newcastle Business School, Northumbria University, Sutherland Building, Newcastle-upon Tyne NE1 8ST, UK.
Email: Gary.bosworth@northumbria.ac.uk

rural development. While the definition of a 'hub' concerns '*The central or main part of something where there is most activity*' (Cambridge Dictionary), understanding their 'spokes', or outward linkages in the local and regional economy, is equally significant for understanding their wider roles in rural development.

The range of "hubs" in rural areas has extended across many activities relating to diverse social, cultural, health and wellbeing, economic, technological and environmental needs of rural places. Rural transport hubs have been discussed in an earlier volume (Bosworth et al., 2020) and this issue adds contributions that focus on **food hubs** (Curry), **enterprise hubs** (Merrell, Rowe et al.), **co-working hubs** (Merrell, Russell et al.; Avdikos and Papageorgiou), **creative hubs** (Hill et al.), **digital hubs** (Rundel and Salemink; Price et al.) and **service hubs** (Goodwin-Hawkins et al.). Each of these combine questions of place and function, recognising that hubs are shaped by their socio-cultural and environmental context, while simultaneously shaping that context through their development and activities.

Addressing distinctive rural challenges

Hubs originate both physically and conceptually from urban regions. Cities have always been economic and cultural hubs and the implementation of hubs across smaller towns and rural regions often seeks to create a substitute for the economies of scale and critical mass that are found in urban centres (Alumur et al., 2021; Ge et al., 2018). This function of local agglomeration can represent both a response to less favourable local economic conditions and a proactive step to capitalise on local development potential. For example, creating 'micro-clusters' for arts and crafts businesses (Merrell et al., this issue) creates an identifiable presence in the local area to attract greater footfall and reputation while simultaneously facilitating collaboration, skills and innovation in a sector

with growth potential. Similarly, although the purpose of co-locating services tends to be expressly to overcome disadvantages of economic location, research has shown how socially innovative approaches can generate greater endogenous capacity and access to exogenous resources (Goodwin-Hawkins et al., this issue).

The different categories of hubs featured in this special issue all address matters that have a particular connection to rural places. In several cases, hubs meet multiple needs where social and economic objectives intertwine (Curry, this issue; Goodwin-Hawkins et al., this issue). This complexity requires tailored strategies to respond to the distinctive strengths and weaknesses of diverse rural places (Rundel and Salemink, this issue). For example, the appropriate solutions for a low critical mass of businesses may be very different from those addressing inequalities of skills or access to services. Similarly, strategies must consider whether the objective is to strengthen the internal dynamics of a place or the outward connectivity to wider networks. As Bosworth and Turner (2018) identified, the challenges for rural entrepreneurs who serve local communities are very different from those seeking to sell outside their locality.

Rural hubs are more than just agglomerations of people and resources in a purely economic sense – they provide a focal point for engaging with policy makers at a regional scale too. In the case of digital hubs, this provides leverage for communities to engage collectively to lobby for improved infrastructure and associated support, just as co-working initiatives can strengthen calls for greater business support (Kolehmainen et al., 2016). The overlapping social and economic goals of hubs is illustrated by their potential to redress the rural "brain-drain" where the outcome can be more entrepreneurial activity but also a more balanced community with improved opportunities for those who stay in rural areas (Avdikos and Papageorgiou, this issue; Greike and Lange, 2022). These overlapping goals

included emphasis on wellbeing (Merrell, Russell et al., this issue), placemaking (Hill et al., this issue) and collaboration (Merrell, Rowe et al., this issue) with social enterprise models particularly well positioned to address multiple goals (Curry, this issue).

In the UK context, rural service decline is not simply a result of rural population change since many rural areas continue to see increasing populations (Brown et al., 2015; Scott et al., 2017). Instead, service decline can be associated with increased competition and greater mobility among the majority of rural people whose access to services elsewhere, including online, reduces the captive audience for local businesses (Schiffling et al., 2015; Tomaney and Bradley, 2007). As well as this demand-side squeeze, austerity has created additional supply-side pressures to reduce costs of service provision, especially in the public sector (Cowie et al., 2020). Arguably, an over-emphasis on growth and GVA measures for regional economic policy has left essential, but low-growth, sectors under-supported. In some cases, like community food hubs, this has triggered social enterprises to fill the gap (Curry, this issue) who face their own distinctive challenges. More recently, the COVID pandemic has seen hubs adopting digital technologies in new ways to stay connected to their audiences and provide new support too (Hill et al., this issue; Merrell, Russell et al., this issue).

While these 'necessity' drivers of hub development have sparked positive contributions to local rural development, any future strategy based on hubs must examine what sustainable business models will look like. In the next section, we therefore consider some of the more promising opportunities that hubs can offer to their communities before assessing the connections, 'spokes', that are required to turn these into reality.

Creating opportunities and connections

A common philosophy among advocates of innovative or creative hubs is the need for porous boundaries and a management approach that fosters interaction between users, each of which allows a context specific identity to emerge (Clifton et al., 2019; Dovey et al., 2016; Kovács and Zoltán, 2017). While focused on the activities within a hub, effective network development becomes part of the external identity of the hub too. It may simply mean that a place becomes recognised as a creative or entrepreneurial place because of the presence of the hub, but the activities of hub participants can engage wider stakeholders to widen the remit of the hub too. Essentially, the hub becomes more than a feature of the place but a driver of community interactions that spread beyond the walls of the hub – which is essential for if they are to be part of an inclusive model of rural development.

The rationale for this Special Issue was to explore the importance of the spokes, not just the hubs themselves, and the papers herein identify a number of ways in which these connections are created and managed. In the case of food hubs (Curry), the external networks concerned local policy actors for funding and organisational support that were essential to create a joined-up strategy that created the purchasing power and scale to grow the operation. Only with these connections could the day-to-day management successfully provide food to those in need. Elsewhere, the 'spokes' were more concerned with the connections to hub users as with rural co-working spaces that seek to foster more dense socio-economic interactions at the local level (Avdikos and Papageorgiou; Merrell, Russell et al.) and digital hubs that need to bundle together sufficient demand to reach a critical threshold (Rundel and Salemink).

In the paper by Goodwin-Hawkins et al., rural service hubs present a more complex set of spokes because the hubs mobilise five interlinked domains: social innovation, governance, scale, proximity, service access and provision. In sparser populated rural areas, the logic of combining multiple functions together requires collaboration between service

providers at the local scale who may each have quite diverse sets of exogenous connections. A key finding from this paper is that effective local collaboration can deliver new business models tailored to their rural context. Rather than assuming that a hub is seeking solely to replicate the scale advantages of an urban area, this identifies that rural spaces can present distinctive opportunities for collaboration that would not suit an urban environment. Similarly, in rural digital hubs (Price et al., this issue), the offer might extend beyond technology, recognising the needs for skills development and accessibility among different age groups whereas urban centres might be more segmented to address community, education or business needs. This aggregation of demand-types may present some logistical challenges to ensure everyone is catered for, but it also helps to create new connections within a local place and strengthen community cohesion.

Extending the argument that hubs in rural areas can provide more than functional purposes, some of the papers have also identified their placemaking roles. In the creative sector, 'honeypot' hubs (Merrell, Rowe et al.) and creative hubs (Hill et al.) are each analysed in terms of the wider value that they offer. In the case of honeypots, the 'shop-window' effect of raising footfall combines with enhanced networking and collaboration opportunities and in creative hubs too, the actions of key individuals can create a distinctive identity as well a strong support network. Other rural hubs that support digital connectivity, enterprise or co-working also influence the identity of their towns of villages, not just the hubs themselves. Here, one might argue that the 'spokes' are more ephemeral as the outward effect is to enhance the perceptions of rural places as well as fostering more tangible business networks and trade.

The papers in this Special Issue identify multiple categories of spokes that offer opportunities for hubs to broaden their reach and increase their impact. Figure 1 identifies three types of spokes that radiate out from hubs.

First, there are horizontal spokes that reach out across space to join rural places into other spatial networks; second, there are vertical networks that link small communities and enterprises to larger institutions and thirdly, there are more ephemeral, intangible, identity-based spokes that can influence how people perceive rural places. This three- or four-dimensional view of the spokes that radiate from rural hubs highlights the multiple inter-connected relationships that must be managed if a rural hub is to be successful.

When we conceptualise hubs in this way, the management of networks around the hub becomes a key focus for attention. Rather than focusing on the specific challenges and opportunities that are distinctive to different types of hubs, the discussion continues by considering how hubs can effectively connect with both their local communities and more mainstream institutions beyond the local context.

Discussion

The development of a hub is dependent on the initiative and ambition of a core group of people that are able to attract a critical mass of interest. This is true for technology hubs in Africa (Atiase et al., 2020) just as much as it is for co-working hubs, food hubs or digital hubs discussed here. The extended community is also key for the different forms of outward connection and identity-building that form the spokes that reach beyond the hub itself. We argue that hubs need to be both locally distinctive and outwardly recognisable in terms of their functions. Given the heterogeneity of rural communities a one-size-fits-all model is not appropriate, but it may be possible to find some commonalities from which local adaptations can be made based on informal, place-based collaboration (Hervas-Oliver et al., 2020).

Reflecting this dual identity in the spokes that emanate from various rural hubs, we propose a simple model in Figure 2, highlighting the different features of hubs and their connections that might achieve this.
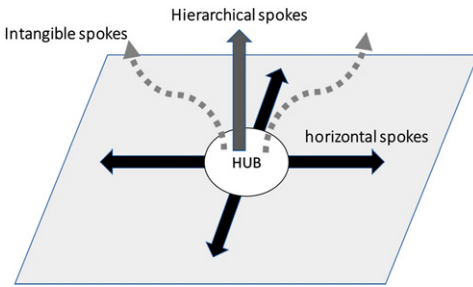
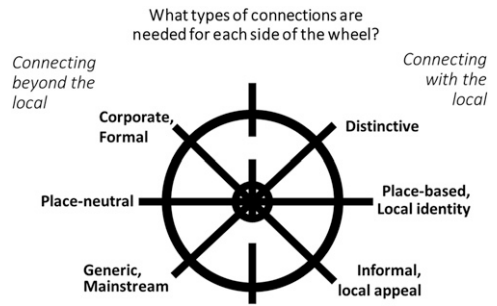Figure 1. Conceptualising four dimensions of spokes.

Figure 2. Conceptualising hubs and spokes.

Essentially, we suggest that a hub needs to align with mainstream, professional and place-neutral expectations when communicating with external organisations, but that does not preclude a local identity that is more informal and place-distinctive. For example, if co-working hubs develop formal arrangements with larger employers looking to improve flexible working arrangement for their employees, they need to fulfil certain corporate requirements and if local service hubs are to provide mainstream public services, they need to demonstrate that they can fit in with a regional or national programme of service delivery.

Moving to the right-hand side of the wheel in Figure 2, we see the features of rural hubs that have been strongly emphasised in a number of papers here. They are designed to meet particular needs and to capitalise on their natural environments through being embedded in their local communities. Here, hubs will tap into distinctive features of the local economy to promote opportunities for creative businesses, tourism or lifestyle entrepreneurs and through innovative modes of organisation they can capture local knowledge and ensure that the hub is integrated into the local community. These approaches need not conflict with the left-hand side but, through a strong local identity they should be well placed to engage with the mainstream by offering novel modes of service delivery that might catalyse further innovations elsewhere. In other words, rural hubs cannot simply be the outcome of policy investments to address a local need, nor can they be solely 'bottom-up initiatives'. As Goodwin-Hawkins (this issue) explains, they are likely to function most effectively as part of a rural nexogenous development model (Bock, 2016), where the hub provides a critical space for connection the local and extra-local networks.

An emerging research agenda

As rural populations, their ways of working, and their local service expectations continue to evolve, hubs too will need to keep pace with changing demands. Rural hubs address multiple inter-related social and economic needs which create layers of complexity that can be difficult to manage, particular among hubs facing economic imperatives to generate profits or public sector performance indicators. We therefore advocate new research that helps hub operators to capture the value of local distinctiveness in parallel to effective communication beyond the local area. This could take the form of greater horizontal collaboration among hubs or more effective mechanisms to ensure that hubs are able to work with larger organisations, mirroring findings in the field of rural social entrepreneurship (Lang and Fink, 2019). Furthermore, the research agenda should examine how private, public and social enterprise models deliver different outcomes

and how effectively the different operators are able to work together.

It is tempting to suggest that a single multifunctional space could serve multiple rural hub roles and thus be more efficient in terms of footfall, recognition and economies of scale, but this risks overlooking the heterogeneity of rural places. Therefore, it is essential to understand how local priorities are determined, who local development is for and who the key participants are in rural hubs. We perceive a risk that certain types of hubs might only meet the needs of certain sections of rural society – the digitally skilled, entrepreneurs or innovators for example – but to achieve equitable and inclusive results, hubs need to offer a range of opportunities for engagement. In an urban setting with a greater variety of services and venues, this may be less of a problem, but where a hub can influence the identity and interactions of a smaller community, this merits investigation. The hub provides the *opportunity* to build local connections and cohesion, but we cannot assume that the simple presence of the hub will deliver those outcomes without appropriate management.

The development of a hub often stems from a core group. At first, to get started, one does not always need a large critical mass of users, especially when funding schemes are available. Smaller initiatives can also have a relatively greater impact in rural communities (Steiner and Teasdale, 2019). However, wider community involvement and accumulation of users is needed to sustain the existence of the hub and to capitalise on potential impacts for regional development. Hubs, and their spokes, run the risk of focusing too much on the external relations and resources, perhaps neglecting the importance of local embeddedness and the inclusion of local stakeholders. Hubs in smaller towns and rural areas are, to a certain extent, forced to create uncommon combinations of functions and stakeholders. A long-term business case for a hub requires a delicate balance between including new users without driving away existing users. This could lead to

innovative combinations of functions and users that one would not encounter in urban areas, where more specialised hubs can be created more easily based on the density and number of potential (specialised) users. However, these uncommon and innovative combinations also present new challenges. For example, local volunteer organisations or social clubs might be keen to make use of space(s) in a hub location, but their schedules should not clash with that of small businesses or self-employed professionals who work from the hub. Practical coordination by someone overseeing the entire hub and its users thus becomes vital for its successful continuation.

Finally, there is also the question of the initial motivation (by the core group) to establish a hub and the expectations of users. In the case of a public service hub, (non-)governmental service providers are probably driven by cost efficiency. Sharing a building and a service outlet ought to reduce fixed costs if the service provider is able to move without high transaction costs. A shared facility might even result in some efficiency for the visitors, as they will be able to make combined visits or appointments. Hubs that are run by community members and organisations want to 'do something good' for the community, but often the hub is a response to rather austere policies of local governments which led to increasing housing costs for their activities. Beyond problem solving or crisis-led motivations, the growth and establishment of a hub to create new networks and greater community cohesion might be a goal in itself (Cabras and Lau, 2019). To achieve this goal, however, hubs must still provide value to their users and a reason to participate. Providing functional services such access to technology, meeting places or essential services can be the conduit for wider activities and interactions that help people to overcome isolation and build community capacity.

Unpacking the motivations and expectations of users, and a more longitudinal analysis of these how these develop over time, will create a better understanding of the long-term impact of

hubs in small towns and rural areas. The contributions to this Special Issue show the potential of hubs for users and wider regional development, but in order to capitalise on this, hubs need to remain on the agenda of regional development policies and research.

Declaration of Conflicting Interests

Funding

ORCID iD

Gary Bosworth https://orcid.org/0000-0001-5381-4399

References

Alumur SA, Campbell JF, Contreras I, et al. (2021) Perspectives on modeling hub location problems. *European Journal of Operational Research* 291(1): 1–17.

Atiase VY, Kolade O and Liedong TA (2020) The emergence and strategy of tech hubs in Africa: implications for knowledge production and value creation. *Technological Forecasting and Social Change* 161: 120307.

Avdikos V and Papageorgiou A (2022, this issue) Public support for collaborative workspaces: dispersed help to a place-based phenomenon? *Local Economy.* in press. DOI: 10.1177/02690942221074941.

Bock BB (2016) Rural marginalisation and the role of social innovation; a turn towards nexogenous development and rural reconnection. *Sociologia Ruralis* 56(4): 552–573.

Bosworth G, Price L, Collison M, et al. (2020) Unequal futures of rural mobility: challenges for a "Smart Countryside". *Local Economy: The Journal of the Local Economy Policy Unit* 35(6): 586–608. DOI: 10.1177/0269094220968231.

Bosworth G and Turner R (2018) Interrogating the meaning of a rural business through a rural capitals framework. *Journal of Rural Studies* 60(1): 1–10.

Brown DL, Champion T, Coombes M, et al. (2015) The migration-commuting nexus in rural England. A longitudinal analysis. *Journal of Rural Studies* 41: 118–128.

Cabras I and Lau CK (2019) The availability of local services and its impact on community cohesion in rural areas: evidence from the English countryside. *Local Economy: The Journal of the Local Economy Policy Unit* 34(3): 248–270.

Cambridge Dictionary. (accessed on 18 March 2022) at: https://dictionary.cambridge.org/dictionary/english/hub.

Clifton N, Füzi A and Loudon G (2022) Coworking in the digital economy: Context, motivations, and outcomes. *Futures* 135: 102439. DOI: 10.1016/j.futures.2019.102439.

Cowie P, Townsend L and Salemink K (2020) Smart rural futures: Will rural areas be left behind in the 4th industrial revolution?. *Journal of Rural Studies* 79: 169–176.

Curry N (2022, this issue) The rural social economy, community food hubs and the market. *Local Economy.* in press, DOI: 10.1177/02690942211070798.

Dovey J, Pratt AC, Moreton S, et al. (2016) *The Creative Hubs Report: 2016.* UK: British Council.

Ge H, Canning P, Goetz S, et al. (2018) Effects of scale economies and production seasonality on optimal hub locations: the case of regional fresh produce aggregation. *Agricultural Economics* 49(2): 157–169.

Goodwin-Hawkins B, Oedl-Wieser T, Ovaska U, et al (2022, this issue) Rural service hubs and socially innovative rural-urban linkages: a conceptual framework for nexogenous development *Local Economy.* in press. DOI: 10.1177/02690942221082040.

Greinke L and Lange L (2022) Multi-locality in rural areas - an underestimated phenomenon. *Regional Studies, Regional Science* 9(1): 67–81.

Hervas-Oliver J-L, Gonzalez-Alcaide G, Rojas-Alvarado R, et al. (2020) Emerging regional innovation policies for industry 4.0: analyzing

the digital innovation hub program in European regions. *Competitiveness Review: An International Business Journal* 31(1): 1059–5422.

Hill I, Manning L and Frost R (2022 this issue) Rural arts entrepreneurs' placemaking – how 'entrepreneurial placemaking' explains rural creative hub evolution during COVID-19 lockdown. *Local Economy.* in press. DOI: 10.1177/02690942221083838.

KolehmainenIrvine JJ, Irvine J, Stewart L, et al. (2016) Quadruple Helix, innovation and the knowledge-based development: lessons from remote, rural and less-favoured regions. *Journal of the Knowledge Economy* 7: 23–42.

Kovács J and Zoltán E (2017) Rural enterprise hub supporting rural entrepreneurship and innovation – case studies from Hungary. *European Countryside* 9(3): 473–485.

Lang R and Fink M (2019) Rural social entrepreneurship: the role of social capital within and across institutional levels. *Journal of Rural Studies* 70: 155–168.

Merrell I, Füzi A, Russell E, et al (2022 this issue) How rural coworking hubs can facilitate well-being through the satisfaction of key psychological needs. *Local Economy.* in press. DOI: 10.1177/02690942221075598.

Merrell I, Rowe F, Cowie P, et al (2022 this issue) 'Honey pot' rural enterprise hubs as micro-clusters: exploring their role in creativity-led rural development. *Local Economy.* in press. DOI: 10.1177/02690942221085498.

Price L, Deville J and Ashmore F (2022 this issue) A guide to developing a rural digital hub. *Local Economy.* in press. DOI: 10.1177/02690942221077575.

Price L, Shutt J and Sellick J (2018) Supporting rural small and medium-sized enterprises to take up broadband-enabled technology: what works? *Local Economy: The Journal of the Local Economy Policy Unit* 33(5): 515–536.

Rundel C and Salemink K (2022 this issue) Hubs, hopes and high stakes for a relatively disadvantaged low tech place. *Local Economy.* in press. DOI: 10.1177/02690942221077120.

Rundel C, Salemink K and Strijker D (2020) Exploring rural digital hubs and their possible contribution to communities in Europe. *Journal of Rural and Community Development* 15(3): 21–44.

Scott M, Murphy E and Gkartzios M (2017) Placing 'Home' and 'Family' in rural residential mobilities. *Sociologia Ruralis* 57: 598–621.

Schiffling S, Karamperidis S and Nelson J (2015) Local shops vs. Online retailers: competition or synergy? *Scottish Geographical Journal* 131(3–4): 220–227.

Steiner A and Teasdale S (2019) Unlocking the potential of rural social enterprise. *Journal of Rural Studies* 70: 144–154.

Tomaney J and Bradley D (2007) The economic role of mobile professional and creative workers and their housing and residential preferences: evidence from North East England. *Town Planning Review* 78(4): 511–530.