



# A Bibliometric Study About the Rural Creative Class: Proposal of a Conceptual Framework and Future Agenda

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Received: 11 June 2023 / Accepted: 12 December 2023  
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## Abstract

This study aims to carry out scientific and bibliometric mapping of the rural creative class. It analyses 57 articles retrieved from the Web of Science (WoS) database and resorts to bibliographic coupling using VOSviewer software to identify the main lines of research on this theme, before advancing new topics for future research. The results identify and classify the prevailing theoretical foci in this domain as follows: (i) Florida's theory and rural areas; and (ii) Urban growth and the creative class. The main contribution of this study lies in showing the need to understand the effective operationalization of Florida's model in rural areas, as a way to raise their sustained economic growth. In addition, network theory is necessary if used to explain the bridge between rural creativity and the place's social capital. A conceptual framework is proposed for the development of rural or sparsely populated areas, presenting the challenge of its application by political decision-makers, as well as trend topics for a future agenda.

**Keywords** Rural creative class · Urban entrepreneurship · Human capital · Entrepreneurial capital · SLR · Bibliometrics

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## Introduction

Traditionally, growth models were based on exogenous factors from an urban perspective, where rural areas only increased agricultural productivity with a migratory flow of excess labour to the cities (Gkartzios & Lowe, 2019). The change in traditional growth models, caused by stagnation at the regional level, directed growth strategies to the micro level of places (Peck, 2005), considering exogenous and endogenous factors (Gkartzios & Lowe, 2019; Gkartzios & Scott, 2014), particularly for rural areas, where social and cultural amenities, and social and human capital became part of decision-makers' strategic axes (Cocklin & Alston, 2003; Cocklin & Dibden, 2005). Rural areas are normally characterised by low population and business density, besides facing various social challenges related to an ageing and diminishing population and low economic development, compared to urban areas (Espo Escape, 2020). Local amenities, such as the environment, landscape, cultural heritage and quality of life, have come to be considered relevant for improved competitiveness (Argent et al., 2007), as they attract new residents who stimulate economic growth in these places (Chi & Marcouiller, 2013). Social capital refers to the dynamic interplay among individuals, fostering the development of socially engaged communities that contribute to the formation of a supportive social environment (Putnam, 2000a, b). Lin (1999, p. 35) provides a comprehensive definition of social capital, "as the resources embedded in a social structure which are accessed and/or mobilized in purposive actions". Building upon this concept, Lakhani (2020) emphasises that social capital encompasses not only the resources inherent in a social structure but also their accessibility and utilisation by individuals in purposeful endeavors. In addition, Lin et al. (2001) postulated that social capital represents a set of resources rooted in social networks that are accessible and used by individuals in their activities. In turn, this environment provides social networks, where there is reciprocity of relations based on trust and tolerance (Audretsch & Keilbach, 2005; Putnam, 2000a, b) with synergies that benefit the whole population. These synergies allow regions to be competitive and grow uninterruptedly (Camagni, 2016), also through the involvement of other agents. This growth capacity is related to entrepreneurship (entrepreneurial capital), which refers to a society's capacity to generate business activity, with a significant impact on regional economic activity (Audretsch & Lehmann, 2005), this being an essential factor in the process of acceleration and sustained economic development (Acs & Szerb, 2007; Audretsch & Keilbach, 2004; Wennekers et al., 2005). Finally, in recent decades human capital has become a priority for most global economies, since it is a driver of economic growth at all levels (Kiuru & Inkinen, 2017). Its definitions have varied between competences/capacities and the level of education and intensive knowledge (Glaeser & Saiz, 2003; Sabadie & Johansen, 2010), and between talent and tolerance (creative class) (Florida, 2005, 2014). Then again, Faggian et al. (2017) argued that creativity, education and entrepreneurship belong to the definition of human capital.

In these circumstances, local amenities, social capital and human capital have been associated with creativity, specifically with Florida's theory (Florida, 2002b, 2005). While widely adopted as a seemingly magical formula for fostering

economic growth in urban areas, this approach has also faced numerous criticisms (e.g. Peck, 2005; Pratt, 2008; Shane, 2000). Mainly, Florida's creative class theory has drawn criticism for its exclusive application in urban settings and its neglect of rural areas (e.g., Gülümser et al., 2010; Hansen & Niedomysl, 2009). As a response, several authors have sought to extend its applicability to rural areas (e.g. Carruthers & Vias, 2005; Deller et al., 2001; Hand et al., 2008; McGranahan & Wojan, 2007; McGranahan et al., 2011; Nuur & Laestadius, 2009; Ström & Nelson, 2010; Thulemark & Hauge, 2014).

Recent studies reveal some of the factors that promote regional development. For example, Naldi et al. (2021) concluded that local amenities are crucial in attracting new firms to rural areas. A study in China demonstrated that entrepreneurs of the creative class who move out of urban centres generate a local competitive advantage (Xiong et al., 2020), while another suggested that rural firms find it more difficult to take advantage of scale economies than those in urban areas (Aryal et al., 2021). Bjerke and Mellander (2022) argued that highly qualified young people in rural areas move to towns based on a financial decision, indicating that rural areas are an opportunity for less qualified individuals. Deller et al. (2022) studied the effect of high-speed broadband on rural entrepreneurship, and finally, Radosavljević et al. (2022) refuted that the development of rural areas could be ensured through protection, improved knowledge and competences of human capital, social capital, application of new technology and stimulating the entrepreneurial spirit.

While the existing literature provides valuable insights, certain gaps persist. Notably, there is a scarcity of studies examining the applicability and outcomes of the creative class theory in rural areas (McGranahan et al., 2011). Additionally, there is limited research that integrates the constructs of the creative class, entrepreneurship and social capital within rural settings (Crowe et al., 2015). Continued research and discourse on creativity and competitiveness in rural contexts are crucial for a comprehensive understanding of these dynamics (Aryal et al., 2021). Based on these gaps, Radosavljević et al. (2022) propose that human capital and entrepreneurship have been gaining importance in the development of rural economies, which points this study towards understanding the role of the rural creative class in this respect. Consequently, this study aims to carry out scientific and bibliometric mapping of the rural creative class, using VosViewer software. Its main contribution concerns the urgent need to understand the actual operationalisation of the Florida model in rural areas, as a way to raise their sustained economic growth. Another contribution is also related to using network theory to explain the bridge between rural creativity and the place's social capital. Finally, it presents a conceptual framework for the development of rural or sparsely populated areas, presenting political decision-makers with the challenge of applying it.

The structure of the paper is as follows. After the introduction, the short literature review is presented, followed by the methodology and methods, the results, the discussion and suggestions for a future agenda.

## Theoretical Framework

In this study, the rural creative class is associated with the human and social capital of rural areas, due to their entrepreneurial spirit and the close link between these constructs in rural environments. Their unique characteristics promote unique, distinctive business ideas, which generally enhance the reputation of rural areas (Ratten, 2018). That is, rural areas' development is linked to the existing human capital, and to the resources individuals manage to mobilise through their contact networks, so as to make up for the shortage of resources or infrastructure in these places, compared to urban areas. In this context, network theory and the creative class theory are believed to be the theoretical reference for this systematic literature review on the subject of the rural creative class.

In network theory, the bonds, nodes, relations, trust, legitimacy and connection between the various actors and social capital are the fundamental attributes for network formation (Donnell et al., 2001; Parkhe et al., 2006). Therefore, networks have become a fundamental strategy for places, since they are assimilated as flows and relations occurring in urban spaces characterised by formal bonds between economic actors and spatial units at the territorial level (Camagni & Capello, 2004). In addition, due to the globalisation phenomenon being articulated with a network-based strategy, as interlinked, integrated nodes, Castells (2010) clarified that networks should be associated with places' competitive advantage. This author also mentions that business networks in territorial spaces have a dominant role in generating flows and the relations between them, which is reflected in the European Union's 2020 Strategy, and at the regional level these are clearly an important factor in promoting sustainable development.

Networks are evident in the regional integration model defined by the EU, which includes structures, formal and informal coordination and collaboration processes, and so this has become a priority for governments (inter and intra networks) (Siegel, 2016). This argument was defended by Capello (2000), who concluded that implicit to networks are the relations between all the actors in places, providing urban externalities, scale economies and other types of synergies, which are able to stimulate economic growth (Meijers & Burger, 2016), despite requiring active participation, flexibility and open attitudes from the actors involved (Capello, 2000). Emphasizing the importance of networks in places and in harmony with network theory, territorial places/spaces consist of a group of connected actors (Echebarria et al., 2016), who remain independent but work towards a common objective (Alter & Hage, 1993).

Explicitly, strategies that adopt network theory as a premise assume that spatiality should be understood in terms of places, flows and integration in networks, which improves places' economic performance (Pain et al., 2011), the transfer and share of knowledge *inter* and *intra* cities (David et al., 2013; Dijkstra et al., 2013) and greater access to information (David et al., 2013). In addition, places (cities and rural areas) must try to combine their endogenous and exogenous characteristics (Siegel, 2016), in order to promote a place in a network from the network theory perspective (Wall & Stavropoulos, 2017). Here, the relations

formed by places with the various actors must be marked by trust and commitment (Hojda, 2015). That is, these networks must consider the centrality related to their strategic position, structure, autonomy, the density of the flows of information and resources and the intensity of relations between all actors (Ferreira & Filho, 2010).

Consequently, spaces result from the interaction between various actors, from multi-faceted networks including relations between people, organisations, institutions and places (Batty et al., 2012), providing social and environmental benefits and greater efficiency of resources (Networked Society City Index, 2016). According to network theory, this conclusion suggests that places are not isolated systems, as they are integrated and organised in networks, and so a network of territorial spaces is a structure. For the same authors, the nodes of this structure are the various places connected by different types of bonds and channels, where economic flows are changed by the flows of knowledge through the interaction and by global governance (Sassen et al., 2008). Finally, this agglomeration of flows allows the generation and spread of knowledge through the urban and rural structure (Boix & Trullén, 2007; Ynalvez & Shrum, 2011), leading places to become increasingly vibrant and connected (Sassen et al., 2008).

Creative class theory emerged from renewed interest in regional and urban issues. It was formulated by Florida (2002a, b, 2005) and is directed to urban structures and economies supported by the creative class—formed of creative, talented individuals—which is crucial for economic growth. This author argues that this class is intrinsically connected to urban growth and it has been one of the most popular theories, particularly in the USA (northern cities), as regards the economic prosperity of cities/regions (Mcgranahan et al., 2017). Various authors have explored the extent of this theory, for example Hoyman and Faricy (2009), who proposed this theory represents a new urban class, an emerging sector in the economy. Romero-Padilla et al. (2016) argued that it is a contribution to the theory of economic growth and is supported by the generation of knowledge and the emergence of new ideas. Florida (2005) developed a multi-disciplinary, holistic approach that aimed to confirm responses to the growing interest in regional and urban questions. It was grounded on the urban structure and economy and followed on from the arguments of Marshall (1920) about economic agglomerations, around which cities provide stronger labour markets and multiple sharing of knowledge, contributing greatly to increased productivity. Florida (2005) also proposed that the creative class and tolerance are characteristics of creative cities, having been adopted by Berlin, Liverpool, Detroit and Philadelphia, among others, which are undeniable contemporary examples of urban platforms of productivity in economic, social, cultural and creative terms.

Also for Ratiu (2013), the vast literature on creative cities demonstrates that creative class theory has become a symbolic reference for cities' urban development. This means that creativity has become imperative in the face of economic, social and cultural globalisation, which has caused various problems originating in the phenomenon of increased urbanisation. Therefore, cities focus increasingly on creativity, to combat depopulation in some regions and their economic stagnation (Kakiuchi, 2016; Ratiu, 2013). This has led to revitalising many industrial cities (Ratten, 2017),

among them Silicon Valley, Bavaria Valley (Germany), Silicon Glen (Scotland) and Silicon Saxony (Germany) (Hospers & Pen, 2008). Amin and Thrift (2007) considered that the icons of creative cities are Barcelona, San Francisco and Glasgow, while Romein and Trip (2009) concluded that Rotterdam and Amsterdam are positive examples of long-term development, since they considered the interaction and balance of all their characteristics.

Nevertheless, the potential efficiency in responding to the challenge of cities becoming creative depends on their capacity to attract, retain and stimulate individual talents (Florida, 2002a, b), and so this author developed a model where cities' attractiveness is influenced by the 3 T model—Tolerance, Talent and Technology. Fernandes and Gama (2008) explained that tolerance is related to openness, social inclusion and diversity; talent reflects individuals' degree of qualification and education, and technology concerns the concentration of innovation and high technology. Moreover, these 3Ts provide cultural and social diversity (Florida, 2002a, b, 2005; Grant & Kronstal, 2010), and complete openness to entrepreneurial ideas and technology, which generates a creative economy and can improve cities' economic performance, as claimed by Florida (2002a, b, 2005). In other words, the core of this model is the creative class which includes individuals who use their creativity to benefit economic growth, with a tendency to concentrate in attractive places, specifically cities, according to Florida (2002a, b). Banking on the creative industries, where the main actors are new entrepreneurs in the area of technology, media and entertainment (Scott, 2000), is fundamental for a better understanding of the spatial dimension of creative work in relation to the attractiveness of urban areas, as effective connectivity (partnerships/networks) is relevant for creative workers (Brennan-Horley, 2010), particularly social networks and open collaboration networks to spread knowledge (Przygodzki & Kina, 2015).

Briefly, this theoretical grounding gives understanding of places, whether urban or rural, as a node of connectivity, where the relations created involve all the actors in a common objective, to promote economic growth. This means that networks can be seen as helping to solve problems currently faced by territorial spaces, due to the synergies and externalities that the *intra* and *inter* bonds created provide in spaces, which reflects the theoretical implication of using this theory. Moreover, it is fundamental that territorial spaces create global and added value, that they are attractive to people and business and that they have a vibrant community environment. This attractiveness is associated with the benefit of the existence of networks promoting intangibility in cities around creativity, which has cultural heritage as a catalyst of economic growth. This argument shows the link between Network Theory and Creative Class Theory, where in rural areas connectivity is essential for them to grow and be attractive to the so-called creative class defined in the Florida (2002a, b, 2005) model.

## Methodology

A systematic literature review (SLR) was carried out to respond robustly to the objective defined, resorting to bibliometric analysis (Connor & Voos, 1981; Powell et al., 1996; Quinlan et al., 2008; Wasserman & Faust, 1994; White & McCain,

1998), which can identify trend and emerging research topics (e.g. Chen et al., 2021). In addition, this analysis advances knowledge on the topic studied (Mentzer & Kahn, 1995), a systematisation of concepts, theories and practices (Rowley & Slack, 2004). Previous research (e.g. Prasad & Tata, 2005; Treinta et al., 2014) reported that bibliometrics is performed through standardization of sub-topics, authors, citations, journals, co-citations and others, dimensions of analysis (Pedro et al., 2018) and conceptual contents (Seuring & Mu, 2008).

Aiming for descriptive and bibliometric mapping, the unit of analysis was scientific articles (empirical and reviews), to allow the grouping of the documents with the same objective and core subject (Grácio, 2016). This grouping was guided by the methodological procedures defined by Tranfield et al. (2003), which include planning, development and presentation of the results.

This typology of analysis means adopting a methodical and structured research strategy with regard to the topic of analysis, so that the documents selected for inclusion in the review are representative of the literature on the theme. Therefore, it is fundamental to define eligibility criteria and key words to include in the initial search (Bandara et al., 2011). It is essential to delimit the method of searching the literature, so that the appropriate association between the main topic and the inter-linked constructs will stand out (Treinta et al., 2014). The search was made on 4 January 2022, observing the eligibility criteria presented in Table 1.

The use of ISI/WoS has been widely recognised in the academic world (Harzing & Alakangas, 2016; Zhu & Liu, 2020), and so this database was used for the scientific mapping and bibliometric analysis presented here. The research protocol shown in Table 2 reflects the application of a search method with scientific rigour and high transparency, in order to minimise bias in the literature from collecting data only from WoS (Thorpe et al., 2005; Tranfield et al., 2003). This database is employed as a research tool that assists scientific tasks in various fields of knowledge, providing access to a dataset for large-scale data-intensive studies (Li et al., 2018). WoS is widely used in bibliometric studies and systematic literature reviews (e.g. Geissdoerfer et al., 2017; Paul-Hus et al., 2016; Vicente-Saez & Martinez-Fuentes,

**Table 1** Eligibility criteria

Items	Criteria
Period:	No chronological filter
Online databases:	ISI/WoS (Web of Science)
Keywords:	<i>Rural creative class or Rural creative economy and Rural innovation and Rural entrepreneurship</i>
Systemization by area of research:	Agriculture Economies & Policy; Business; Cultural Studies; Development Studies; Economics; Geography; Hospitality Leisure Sport Tourism; Management; Regional Urban Planning; Urban Studies;
Systematization by document type:	Articles and Reviews
Software used:	Microsoft Excel and Vosviewer
Documents identified:	57

**Table 2** Methodological procedures

Stages	Description
I	All bibliographical data exported to <i>Microsoft Excel</i> for descriptive analysis of the 57 eligible documents, concerning document type, number of citations, distribution per year of publication, authors, areas of research and source titles
II	Identification of flows by key search (clusters) using VOSviewer (version 1.6.4) software, to reveal bibliometric networks (van Eck & Waltman, 2010) through co-citation treatment. This software allows the conception and observation of bibliometric maps to determine the most cited and co-cited authors in the 57 documents of the final database selected, with inherent identification of the clusters and co-citation reference networks (van Eck & Waltman, 2010; Waltman et al., 2010), to identify the frequency with which two documents are cited. This means that the co-citation analysis identifies the frequency with which two documents are cited and the weight of the co-citations those documents show when cited by an additional document (Small, 1973). This reflects the academic world's perception of a field of research (Gmür, 2003) and standardisation by co-citations of the scientific literature on the topic (Jeong et al., 2014)
III	Content analysis of the 57 documents in the final selection, to systematise the most studied research topics in academia, leading to the clusters presented (Seuring & Gold, 2012; Spens & Kovács, 2006). Although this content analysis is somewhat subjective, due to its qualitative nature, this does not refute the validity of its inferences and its scientific robustness (Becker et al., 2012), supported by the structured, systematic approach defined by Tranfield et al. (2003) and Seuring and Gold (2012)

2018), compared to the use of only peer-reviewed articles, due to the presentation of more standardised and solid data (Chen et al., 2017) as well as highly regarded and indexed journals. WoS is a reference in the scientific community (Rodrigues & Franco, 2020) and has been frequently used in recent research (e.g. Ali et al., 2023; Rodrigues et al., 2022; Ülker et al., 2023)). This means that an RSL should increase the transparency of the review process, aiming to minimise subjectivity in the selection of studies and allowing for a structured (or systematic) identification and selection of the literature (Kuckertz & Block, 2021).

In this context, the search string resulted from a search for key words used in other studies related to the topic, so that the return of the search in WoS would be robust, transparent and easy to replicate in any time period, as required in this type of review and in line with the arguments of Saur-Amaral et al. (2013) and the advanced WoS search by topic (search (in title, abstract, author keywords and Keywords Plus®) was used. After completing this procedure, the data was extracted and summarised as follows: Results found=57; Sum of the Times Cited=1712; Average Citations per Item=30.04; h-index=21. Finally, given that only 57 documents were extracted, no other data eligibility criteria were applied afterwards, which means that these were the ones used in the biometrics. The choice of areas of knowledge was also geared towards rurality, regions, among others, given the topic that was intended to add knowledge.

Bibliometrics is a quantitative analysis for examining publication patterns within an area of knowledge (De Bellis, 2009), making it easier for researchers to analyse the literature in that area and identify its most relevant contributions (Bichteler & Eaton III, 1980); it is commonly combined with scientific mapping techniques to visualise the scientific structure of a specific field of research (Cobo et al., 2011). Bibliometric

analysis covers various measurement topics, depending on the types of information sought (Van Raan, 2005). The most commonly used are as follows: (i) citation-based analysis (Bichteler & Eaton III, 1980); (ii) co-wording analysis ((Bichteler & Eaton III, 1980); (iii) keyword occurrence analysis and (iv) co-authorship analysis (Van Eck & Waltman, 2014a, b). Citation-based analysis encompasses citation analysis per se, co-citation analysis and bibliographic coupling (Van Eck & Waltman, 2014a, b). Co-citation analysis is the most common method (Ding et al., 2001). A co-citation occurs when two publications are frequently cited by other articles, it is very likely that these two references have something in common (Braam et al., 1991). As a bibliographic technique (Van Eck & Waltman, 2014a, b), co-citation analysis is used to discover “clusters” of co-citation pairs, which allows academics to gain more insight into the knowledge bases and intellectual structures of scientific research (Pasadeos et al., 1998).

In sum, the methodological procedures guiding the bibliometrics are presented in Table 2.

These procedures involve the use of VOSviewer software. This analyses the relations between the bibliographic references and researchers and creates maps of cited references associated with a certain research topic, particularly through topographical network maps resorting to a coincidence matrix, which groups by co-authorship and co-occurrence, as presented in the following sections.

## Results and Discussion

### Scientific Mapping

The 57 articles analysed are distributed in time as shown in Fig. 1.

Figure 1 shows the scarcity of publications per year on the creative rural class, reaching a peak (6) in 2011. This underscores the necessity for a systematic literature review. Such a review is imperative to enable academics and local decision-makers to discern the key insights and significance from the existing scientific literature on this growing and pertinent phenomenon. This is based on the arguments of

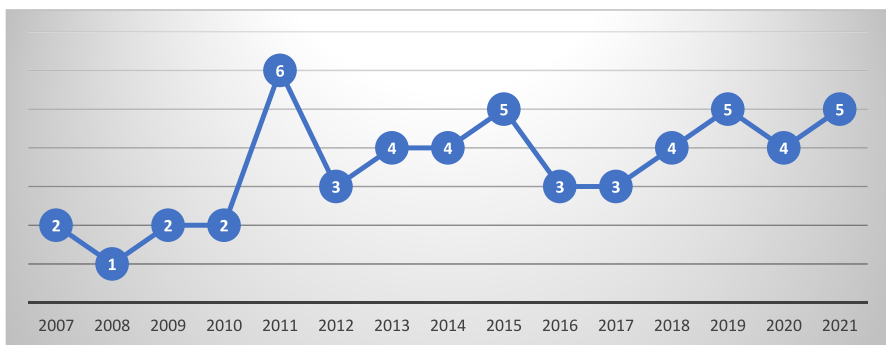


Fig. 1 Distribution over time

Radosavljević et al. (2022), who concluded that the economic, intelligent, inclusive and sustainable growth of rural areas is linked to the entrepreneurial spirit of human capital and raised by natural amenities, by knowledge and by the competences of that capital. This spirit represents creative human capital that has been attracted to rural areas—rural creative class—taking advantage of economic opportunities, creating their own business in exchange for the local amenities provided and a better quality of life (Gulumser et al., 2009). However, the rural creative class is distinct from the creative class proposed by Florida (2002a, b, 2005), “...but they are people in action who realize economic opportunities and create their own innovative activities” (Gulumser et al., 2010, p. 546). Intra and inter networks are also crucial, since “network is all the interrelations of actors in the region that contribute to different stages of the success process, especially to the promotion and transfer of the innovative output. In a knowledge-based economy, a network is not limited to face-to-face relations, but includes relations obtained by any communication facilities in which the knowledge of transfer can be realized. Therefore, in the ICT era, one of the main tools to widen or create a network is the use of diverse telecommunication systems” (Gulumser et al., 2010, p. 550).

The final result of carrying out Stage I (Table 2) is summarised in Table 3.

Table 3 shows that the documents selected present an average citation of 30.12 citations, which was reflected in the h-index of 20. This means there are 20 documents with 20 or more citations (Hirsch, 2005). This metric is useful because it discounts the disproportionate weight of highly cited articles or those that have not yet been cited. This metric relation is highlighted in Table 4.

Analysis of Table 4 reveals that the most cited article (266) was the first one published (McGranahan & Wojan, 2007), presenting an extensive multi-variate model to determine the impact of creative class employment on total employment. These authors demonstrated that creative employment is positively associated with rural, as well as urban, growth.

Another important metric is the Journal Impact Factor (JIF) calculated from data indexed in the Web of Science Core Collection, which is highlighted in Table 5 for the journals with more than one publication.

In Table 5, the JIF demonstrates the quality of journals and the quality of articles published therein. All the journals refer to the Social Sciences Citation Index (SSCI), except for Local Economy, which refers to the Emerging Sources Citation Index (ESCI).

Figure 2 presents the researchers with most articles on the topic, with Argent, N. publishing in Q1 (Argent et al., 2013, 2014) and Q2 journals (Argent,

**Table 3** Research overview

Description	Number
Results found	57
Sum of the times cited	1717
Average citations per item	30.12
h-index	20
Web of Science	

**Table 4** H-index 20

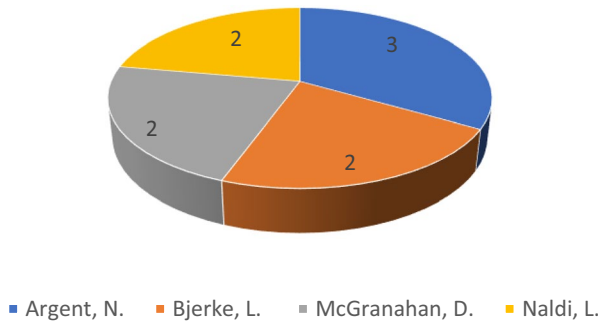
Authors	Source title	Total citations
McGranahan and Wojan (2007)	Regional Studies	266
McGranahan et al. (2011)	Journal of Economic Geography	166
Naldi et al. (2015)	Journal of Rural Studies	153
Stephens et al. (2013)	Journal of Regional Science	92
Herslund (2012)	Sociologia Ruralis	83
Stam et al. (2008)	Geografiska Annaler series b-Human Geography	82
Isserman et al. (2009)	International Regional Science Review	73
Elmhirst (2011)	Geoforum	57
Argent et al. (2013)	Applied Geography	52
Verdich (2010)	Australian Geographer	52
Jackson (2007)	Development and Change	52
Argent et al. (2014)	Annals of the Association of American Geographers	49
Huggins and Clifton (2011)	Environment and Planning a-Economy and Space	45
Bagheri and Tousi (2018)	Cities	33
Olfert and Partridge (2011)	Spatial Economic Analysis	30
Faggian et al. (2017)	International Journal of Urban and Regional Research	28
Robinson and Noriega (2010)	Political Geography	23
Bjerke and Mellander (2017)	Annals of Regional Science	22
Pettit (2019)	Environment and Planning d-Society & Space	21
Richards (2019)	Tourism & Management Studies	21

WoS

2019); Bjerke, L. in Q1 (Bjerke & Mellander, 2022) and Q3 journals (Bjerke & Mellander, 2017). McGranahan, D. published only in Q1 journals, these being the most cited publications (totalling 432 citations) (McGranahan & Wojan, 2007; McGranahan et al., 2011). Naldi, L. also only publishes in Q1 journals with a total of 157 citations (Naldi et al., 2015, 2021).

**Table 5** Journal impact factor (JIF) and others

Journal	Publications	JIF 2021	Quartile	Category	Country
Cities	3	6.077	Q1	Urban Studies	England
Journal of Rural Studies	3	5.157	Q1	Regional & Urban Planning	England
Applied Geography	3	4.732	Q1	Geography	England
Journal of Urban Affairs	2	2.559	Q3	Urban Studies	USA
South African Geographical Journal	2	1.662	Q4	Geography	South Africa
Economic Development Quarterly	2	1.077	Q4	Urban Studies	USA
Local Economy	2	0.5	Q3	Economics	England
Other sources (1 publication)	40				
<b>Total</b>	<b>57</b>				

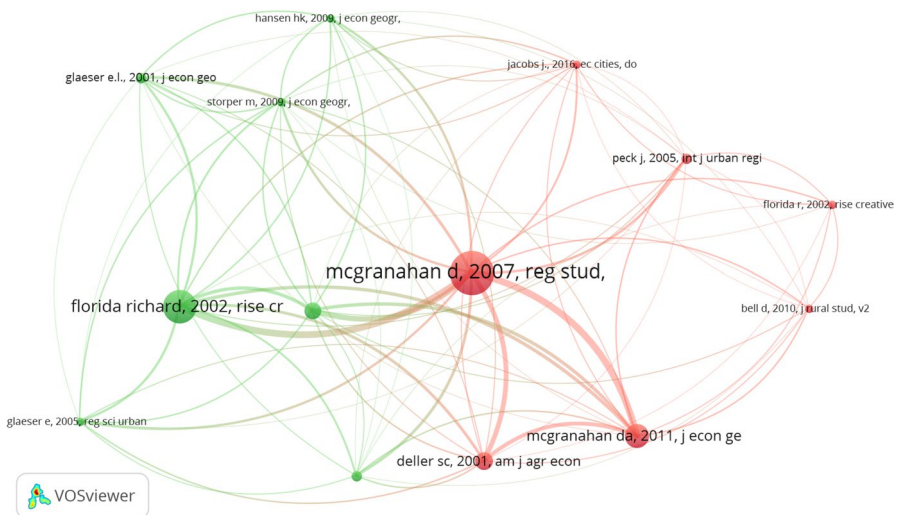


**Fig. 2** Authors with more than one publication

Following this scientific mapping, the next sub-section presents the bibliometric analysis.

### Bibliometric Analysis

As already mentioned, bibliometrics (co-citation network and bibliographic coupling) corresponds to Stage II (see Table 2) of this SLR, using VosViewer software. Here, two clusters (red and green) were obtained, as seen in Fig. 3. This analysis of co-citations aims to identify the relations between publications and creates common aspects in the bibliographic references of the articles cited (Hou, 2017), where “in the network view, circles represent nodes, and lines show the links amongst the nodes. The colours identify the clusters where the nodes are located. The size of the nodes indicates how frequently a specific article was used as a reference” (Arici et al., 2021).



**Fig. 3** Network of co-citations

Figure 3 shows that Florida (2002a, b, 2005) and McGranahan and Wojan (2007) are the most co-cited authors in the green and red clusters respectively. This could be due to Florida (2002a, b, 2005) being the father of the creative class theory in urban spaces, while McGranahan and Wojan (2007) applied it in rural areas, in a pioneering study. Tables 6 and 7 present co-citations for both clusters.

Cluster 1 deals with the applicability of Florida's theory in rural areas and as argued by Peck (2005) places' struggle to attract the creative class, while Cluster 2 addresses the role of the creative class in urban growth. However, the 57 documents originating the clusters include authors from both clusters in their bibliographic references, which means that the rural creative class should be studied holistically and dynamically, with it not being possible to replicate the same formulas, but rather adapt to the typology of spaces. For example, Faggian et al. (2017) say it has been widely recognised that knowledge and talent are essential for economic growth in the twenty-first century, but human capital should be characterised by creativity, entrepreneurship and its level of education; these arguments are based on studies by researchers in Clusters 1 and 2 (Deller et al., 2001; Florida et al., 2008; Florida, 2002a, b; Glaeser, 2005; McGranahan & Wojan, 2007; McGranahan et al., 2011; Storper & Scott, 2009). To study the effect of territorial conditions linked to the existence of centres of creativity in non-urban areas, Escalona-Orcao et al. (2018) also based themselves on research in both clusters (Bell & Jayne, 2010; Florida et al., 2008; Florida, 2002a, b; McGranahan & Wojan, 2007; McGranahan et al., 2011). Also, Xiong et al. (2020), examining the creative class in non-urban tourist destinations, reviewed articles includes in Tables 6 and 7 (Florida, 2002a, b; Florida et al., 2008; Hansen & Niedomyśl, 2009b; McGranahan et al., 2011; McGranahan & Wojan, 2007).

Overall, these clusters show that the rural creative class is an emerging topic and its study should continue. Florida's theory is still subject to criticism due to the redundancy of application and gentrification regarding the classification of creative occupations, despite the argument that the creative class plays a major role in countries' economic growth and should not be neglected by local decision-makers. The studies selected (57) showed precisely that this class is increasingly important in rural and urban spaces to raise regions' economic growth, with hard and soft amenities being attributes increasing the attractiveness of rural areas (e.g. Crowe et al., 2015; Isserman et al., 2009; McGranahan et al., 2011; Naldi et al., 2021; Ratten, 2018), some of them lost in time.

The study by McGranahan and Wojan (2007) is very similar to the other articles regarding the references cited. These authors considered there is a lack of empirical proof of Florida's theory, that it has limitations regarding measurement of the creative class and is only focused on urban areas. Besides these criticisms, they contradict it by demonstrating that the predominance of open-air spaces and natural and recreational amenities attract the creative class to rural areas, leading to their economic growth. They also argue that the quality of schools, social and cultural interaction, the existence of an active artistic or craft local community and the rich cultural heritage provided by rural life is attractive to a creative class distinct from the one considered by Florida.

Table 6 Cluster 1—Florida's theory and rural areas

Authors	Strength	Co-citations	Contributions
McGranahan and Wojan (2007)	91	29	Demonstrating that employment in creative occupations is positively associated with growth in rural areas. They also found that a better quality of life and local amenities in rural areas attract the creative class, which becomes the key to their growth. However, this creative class differs from the one proposed by Florida (2002a, b, 2005), as it is older than the one in urban areas
McGranahan et al. (2011)	55	16	Concluding that the creative class's employment rate is closely associated with the growth of new businesses and employment, especially in rural areas with recreational facilities in the open air, and that it is important to give value to rural amenities to promote rural growth in a knowledge economy
Deller et al. (2001)	45	12	Studying the construction of multi-dimensional measures for natural resources, amenities and quality of life, as attributes for an empirical model of regional economic growth. Application of this model in rural areas revealed that those with major natural resources and amenities and offering a better quality of life show a strong, positive relation with their growth. Furthermore, these areas can use these attributes associated with tourism to stimulate their growth
Peck (2005)	21	7	Strong criticism of Florida's theory of creative class, claiming that creativity strategies channel and restrict, subtly, urban policy. They considered that the return on these strategies is somewhat evasive, since urban creativity is still a soft "law" for a time of high competitiveness
Bell and Jayne (2010)	17	6	A critical reflection on the elaboration of emerging policies on creative rural industry in a county in the UK. These authors criticise existing policies for being focused on urban creative industry and neglecting cultural rural policy, despite these industries beginning to be understood as a driver to reconsider rural economic and cultural life. However, much remains to be done
Florida (2002a, b)	14	6	Argued that creative people are the key drivers of regional and urban growth. These people—the creative class—are attracted by a tolerant urban climate, open to new ideas and new people. So cities with a high density of this class will have better economic performance, as they present relevant levels of innovation, entrepreneurship and creative business. This means that cities should be characterised by tolerance, talent and technology (3Ts) and by cultural diversity, for the formation of new business, job creation, and economic growth
Jacobs (2016)	24	6	The interest of this book to the agricultural economist is mainly in the first few chapters where the thesis is put forward that cities do not arise as is often assumed, out of the surplus of rural development, but that rather cities as trading centres develop first and are a source of rural innovation which radiates out from them. The need to feed a concentrated group of traders leads to the development of more intensive agriculture around city boundaries; the presence of a concentration of skilled crafts throws up innovations, such as metal tools, and chemical fertilizers which can be used in agriculture. These innovations gradually spread outward along trade routes from cities and modernise agriculture. Urbanisation thus is a pre-requisite of development rather than a consequence of it

Table 7 Cluster 2—Urban growth and the creative class

Authors	Strength	Co-citations	Contributions
Florida (2002a, b)	61	22	See Table 6
Florida et al. (2008)	47	11	Addressing the effectiveness of educational versus professional metrics of human capital (i.e. creative class) and its spatial distribution, aiming to create a taxonomy of creative occupations, based on competences and not on potential talents. In addition, the attractive characteristics for this class are a combination of economic opportunities, political and business leadership, services, values (tolerance and trust) and lifestyles
Glaeser et al. (2001)	29	7	Exploring consumer cities as a function of population density. However, consumption is related to the level of well-being provided by cities. They concluded that cities providing greater well-being grow more quickly than those providing less, showing this is not dependent on salaries but on well-being
Glaeser et al. (1992)	27	7	Addressing cities' growth based on various theories and with new data on major industries in the USA "...find that local competition and urban variety, but not regional specialization, encourage employment growth in industries. The evidence suggests that important knowledge spillovers might occur between rather than within industries, consistent with the theories of Jacobs." (p. 1126)
Glaeser (2005)	26	6	A critical review of the book by Florida (2002a, b), making harsh criticisms, for example, the way of measuring the creative class, the excessive focus on highly qualified professions located in urban spaces, which can create gentrification
Hansen and Niedomysl (2009)	26	6	Focus on understanding the migration of the creative class, postulating that this is slightly greater than the flow of other groups, that this migration generally occurs after finishing university and that the creative class migrates for jobs and not for places
Storper and Scott (2009)	31	6	Re-interpreting the creative class regarding its mobility and its role in cities' growth

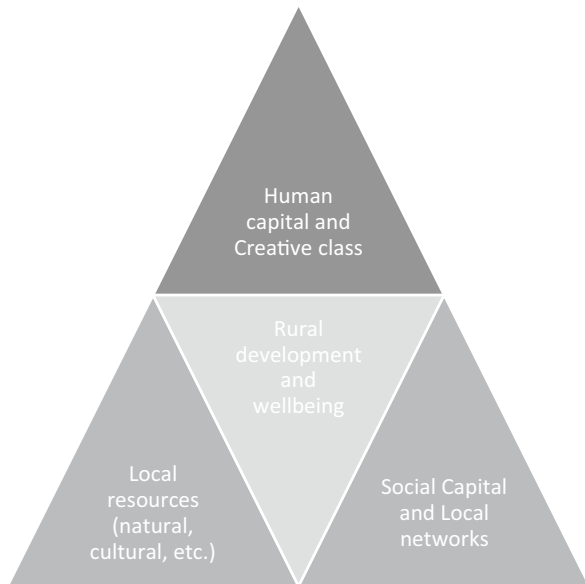
This theory has also been criticised because of its role in gentrification and mobility (Grodach, 2012, 2013; Peck, 2005; Ponzini & Rossi, 2010), which was studied in the rural context by Fleming (2009), who aimed to identify the characteristics of creative economy strategies. The author concluded that creativity and economy are interlinked, as a strong economy gives greater support to the arts, and innovation and creativity generate ideas and a vibrant society. Nevertheless, this depends on a place's specific characteristics, such as the landscape, the resources available, social isolation, fragmentation and the nature of rural gentrification.

The importance of local amenities as a factor of places' attractiveness was reinforced by Naldi et al. (2021), who studied their role in new companies setting up in rural areas, concluding that they are fundamental for this to occur in such areas. Escalona-Orcao et al. (2018) also stated that among the hard and soft amenities of rural or smaller urban areas, only the economic activity index, market quota, the population's level of education, diversity, size and business services are predictors of creative clusters in these areas.

In this scenario, in order to form creative clusters in rural areas, there must be cooperation between the various rural areas, i.e. a network of local actors. The creative class has mobility as a function of its attraction to a given place, and so the quality of a place is a key factor in attracting this class. This aspect, including a better quality of life through rural and recreational amenities in the open air, attracts creative young people to live and work there, rather than in urban areas (Argent et al., 2013). This was mentioned by McGranahan et al. (2011), who also indicated that growth in rural areas is associated with those amenities, entrepreneurship and the creative class. However, for Ratten (2018), it is necessary to promote the bridge between social capital in these areas and the creative class and entrepreneurship, to connect different groups in the community and allow openness to tolerance (Florida, 2002a, b). The author also postulated that the capacity to build social capital is associated with historical social relations, and so it should be used as an instrument of economic growth in rural areas.

It is important to understand why creative people move from an urban to a rural area. For Verdich (2010), this is related to the particular characteristics of small places which are attractive to the creative class. These include recreation in the open air, family time, proximity to nature, a strong sense of community, heritage and culture, which keep this class in these areas. However, the features of the creative class defined by Florida (2002a, b, 2005) should not be replicated in these areas, but rather an implementation of a creative model adapted to their characteristics, endogenous resources, competences and creativity (Richards, 2019). This means that for there to be rural economic growth, a different creative class should be attracted (McGranahan & Wojan, 2007), since its presence is a key factor for the emergence of creative industries and employment (Stam et al., 2008). Recent research corroborates these arguments, as local attributes of rural areas stimulate entrepreneurship, and therefore economic growth (e.g. Naldi et al., 2021; Radosavljević et al., 2022), but strategies adapted to these areas must be activated, according to Aryal et al. (2021). Briefly, rural areas' development is achieved by attracting human capital, namely creative, talented individuals, with the potential to develop local entrepreneurial capital through their capacity

Fig. 4 Conceptual framework



to activate networks and find business opportunities arising from these places' specific amenities, whether natural, cultural or others. In turn, increased quality of life and the economic development of rural areas will have an impact on the capacity to attract more human capital, in a virtuous circle of growth.

Finally, supported by the above discussion, a conceptual framework (Fig. 4) for the growth of rural areas is presented.

This means that rural development is increasingly related to individuals' wellbeing, which is provided by natural, cultural resources and inimitable social capital that can form networks. This combination of amenities makes these places attractive for the creative class. In addition, attracting this class to such places stimulates entrepreneurship and new businesses that will increase economic activity, since rurality is re-invented based on creative and cultural industries.

## Conclusion and Future Agenda

This systematic literature review revealed that Florida's theory of the creative class has been subject to much criticism, mainly by being oriented only to urban, densely populated areas, where the 3Ts indeed exist. However, many scholars have argued there can be a differentiated rural creative class, a class of another age-group that looks for other lifestyles, a better balance between family and work, and a higher quality of life. Here, natural features and landscape, cultural heritage and social capital play a fundamental role in attracting that class to rural areas. This means that Florida's model for urban growth must always be adapted to the attributes of rural areas, which due to the pandemic have become more sought after. These areas should take advantage of this to grow and increase their standing in countries.

In an increasingly connected world and with the growing appreciation of creativity, and as a consequence of the pandemic, there has been a remarkable transformation in the migration patterns of the creative class. While big cities used to be the undisputed epicentres for creative individuals in search of opportunities and inspiration, rural areas are emerging as surprisingly attractive destinations for this constantly evolving class. The movement of this class towards rural areas is not just limited to the search for a quieter life, although this is also a significant factor and one that they ponder, as this social phenomenon is rooted in an understanding of how rural areas offer a favourable environment for creativity to flourish in unprecedented ways. This embrace by the rural creative class of a new rurality is linked to the following issues:

1. **Escape from urban bustle**—Cities used to be centres of frenetic activity, but this bustle often depletes creativity. Rural areas offer a tranquil contrast, allowing creatives to escape the constant pressure of the urban environment. The slower pace and connection with nature can provide a mental clarity that is essential for artistic creation
2. **Open space to promote experimentation**—Many rural creatives find large, accessible spaces for their projects, such as workshops, studios and more affordable plots of land that make it possible to experiment, prototype and create without the financial constraints that often accompany city life
3. **Emerging creative communities**—As more creatives settle in rural areas, local creative communities are flourishing, which offer opportunities for collaboration, networking and knowledge sharing, transforming rural areas into vibrant creative hubs in their own right
4. **Access to technology**—The digital revolution and the expansion of high-speed connectivity mean that rural creatives no longer need to sacrifice connectivity by residing in rural areas, as they can maintain their online presence, collaborate globally and reach international audiences from there
5. **Authenticity**—Many creatives seek a deeper connection with the natural environment and local communities. Life in rural areas allows them to get away from the artificiality of cities and live more authentically, which can serve as a source of inspiration.

In summary, as rural areas become emerging centres of creativity, it is important to recognise that this trend is driving economic development in these areas, creating jobs and revitalising communities that, in many cases, were facing decline and depopulation, bearing in mind that rural areas are becoming a magnet for the creative class, not just as a refuge, but as an environment that nurtures imagination and innovation in unexpected ways. This movement represents a fundamental shift in the understanding of what is possible outside the big cities and is a testament to the power of creativity to transform not only individuals, but also rural communities around the world.

Nowadays, rural areas represent much more than agricultural production. They have a social capital of historical knowledge, local culture, a sense of community, and circularity of natural resources, which are recognised by highly qualified

professionals, such as those belonging to the creative class whose activity is facilitated by information and communication technology.

Florida's 3Ts can be adapted to the rural domain, if networks, partnerships and cooperation are part of decision-makers' strategies for rural areas. This argument justifies using Florida's theory and network theory in this study, as when endogenous and exogenous resources are used to benefit economic growth, synergistic flows are created, contributing to rural areas increasing their relevance in countries.

Throughout this theoretical study, cooperation among locals and the creativity associated with entrepreneurship were found to be the axes of rural places' development. When linked to their unique amenities, they create bonuses for rural communities and forgotten places can gain a new life, as the rural creative class appreciates community relations, nature and a different lifestyle from that provided by urban areas. Florida's claims have been greatly criticised, because of their urban orientation, the classification of creative occupations and the gentrification these cause, but if a model is adapted to the rural context, the situation can be different. Residents can welcome creative people who will generate a vibrant community, open to creating new social capital covering Florida's 3Ts, in exchange for finding a better quality of life.

As for trend topics, these must involve the axes of the rural creative class, namely, understanding how rural areas are becoming attractive to creative people who move there, as this rural creative class differs from the one proposed by Florida. Future study should include empirical research in rural areas where this class already exists, adopting qualitative methodology to understand their characteristics and how and why they decided to move to a non-urban area. Another aspect is associated with local decision-makers in rural areas, i.e. examining whether their growth and investment strategies in these areas bring the expected return—economic growth, population growth, for example.

**Acknowledgements** The authors are grateful to the anonymous referees of the journal for their extremely useful suggestions to improve the quality of the paper. The authors gratefully acknowledge financial support from National Funds of the FCT – Portuguese Foundation for Science and Technology within the project “UIDB/04007/2020”.

**Funding** Open access funding provided by FCTIFCCN (b-on).

**Data Availability** There is no data availability.

## Declarations

**Conflict of Interest** The authors declare no competing interests.

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