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## **ID 1379 | CHALLENGING PERIPHERALITY THROUGH ACCESS TO THE INTERNET? SOCIO-SPATIAL PRACTICES OF THE CONNECTED RURBAN**

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### **1 ACCESS TO THE INTERNET IN MARGINALISED COMMUNITIES: THE RURBAN STANCE**

Specially in the last two decades, the widespread of the internet has had profound impacts on howspace is organised and experienced, reinforcing the importance of Information and CommunicationTechnologies (ICTs) in its production. While enough attention is being paid to our cities, limited studies onthe impact of internet on the countryside reflect a neglect of specific demands and needs of the ruralpopulation, with the risk that the rural continues to play catch-up with the urban (Craig and Greenhill, 2005).

The prevalence of an urban approach is further explained by the blurring of urban-rural boundaries brought by an extended urbanisation (Brenner and Schmid, 2012; Monte-Mór, 2005).

The foundations of extended urbanisation discussion were laid by Henri Lefebvre in the 1970s, when he anticipated a complete urbanisation of the society that would lead to the “homogenization of space and the disappearance of diversity” (Lefebvre, 1989, p. 23), and culminated with the assertion that, if successful, the planetarisation of the urban would render the deconstruction of capitalism unviable (Lefebvre, 1989). As such, it would render the categories that conform bounded territories and their oppositions, such as city-countryside, inadequate to describe the pervasive encroachment of capitalism.

For Neil Brenner and Christian Schmid (2012, p. 12), “while the process of agglomeration remains essential to the production of this new worldwide topography, political-economic spaces can no longer be treated as if they were composed of discrete, distinct, and universal ‘types’ of settlement”. They challenge the “existence of a relatively stable, putatively ‘non-urban’ realm as a ‘constitutive outside’ for its epistemological and empirical operations” (Brenner & Schmid 2012, p. 13). Discussing the existence of a rural—transitional territories where urban and rural elements mingle and challenge one another—would be simply ineffective.

Questioning the authors’ position, Kate Shaw (2015, p. 591) underlines that “while the urban can indeed be framed theoretically, in some places it is also subject to a powerful demarcation between land inside and outside boundaries—arbitrarily drawn, socially constructed, but not at all theoretical—which produces profoundly different land valuations”. No matter how contentious the urban as a category might be, its practical effects are felt by those people whose inclusion is defined by a matter of location.

Thus, this paper embraces a yet unfinished process of extended urbanisation punctuated by places where a set of hick elements typical from the countryside have not been corroded or dissolved by the planetarisation of the urban. Being so, disregarding further qualifications of space means ignoring the specific socio-spatial arrangements that result from an uneven capitalist-framed urbanisation.

The specificities of the rural motivate a growing body of research to focus on the rural-urban interface (such as Buciega et al., 2009; Cimadevilla, 2010; Grazuleviciute-Vileniske and Vitkuvienė, 2012) with a critical view on how current social, spatial, cultural and economic changes are reshaping territories formerly labelled as rural (Pereiro and Prado, 2013). This paper addresses a gap in literature on the impact of the internet on rural communities’ socio-spatial practices by investigating the interaction between socio-spatial practices and the late introduction of the internet in three marginalised communities: Santo Antônio do Salto (Salto) and Noiva do Cordeiro (Noiva) in Brazil and Pendennis in the United Kingdom. Its main ambition was to find indications to whether internet could foster micropolitics, “a situational politics based on local knowledge and action” (Feenberg, 1995, p. 105), in subaltern groups subjected to both the domination of ‘the centre’ and the resulting capitalist social relations of production that stem from extended urbanisation.

## 2 FRAMING THE DISCUSSION ACCORDING TO LEFEBVRE’S SOCIAL LEVELS

Lefebvre suggested we discuss social levels—global, urban and the everyday—rather than scales, as they are a social extension of social relations, rather than a hierarchy of spatial relations (Lefebvre, 1991). The global level is the level of the institutions, and the most abstract one, i.e., the level of the capital markets and the politics of space. The urban level, or mixed, represents the built and unbuilt domain that mediates the global and the everyday, composed of institutional buildings and infrastructure in general. The everyday is the level of ‘inhabiting’, the lived experience, and also where the social relations of production are reproduced and power relations enacted. Indeed, the breadth of the social, political and socio-spatial impacts of the internet in the rural cannot be grasped by analysing encapsulated scales. The global permeates these communities, reinforcing and sustaining an international division of labour through an unequal access to information and deficient production of knowledge (Dantas, 2006), resulting in consumption of knowledge that comes from outside and the withering of local knowledges.

Furthermore, the widespread of corporate internet is contributing to the exponential expansion of the so-called ‘gig economy’ with the proliferation of apps such as Uber, where workers submit themselves to highly exploitative labour conditions without being aware of the work relations disguised in the so-called

'sharing economy' (Rosenblat and Stark, 2016). Despite being a global phenomenon, the impact of the internet in work relations is deemed to be greater in the countries of the South, where regulation and labour protection are even more feeble. In these places, even when local arrangements lead to alternative social relations to those brewed under a capitalist mode of production and result in particular forms of socio-spatial organisation, there is no significant inside-out or bottom-up triggering effect.

In regards to ICT, the discrepancies in access observed in the urban suggest the strengthening and the emergence of socio-technological peripheries, geographical territories connected to centres in an asymmetrical relationship of technology and knowledge production and use. In countries such as Brazil, this was already denounced by Marcos Dantas (1986, par. 12): "for Third-World countries forced to integrate themselves internationally, the problems become even bigger, due to the dissipation of the so-called comparative advantages, resulting from the application of new technologies in the industrial processes and in the services." Nevertheless, peripheralisation is not exclusive to the Global South and East—always perceived as peripheral and therefore exogenous to the 'developed' nations—, but also happens in the Global North and West—regarded as advanced and the motor of technological development. Central countries are creating peripheries and divides within their own territories at an unforeseen pace.

Locally, this form of peripheralisation presents itself in accordance to existing socio-spatial processes and the ways in which ICTs are being introduced in the everyday. Major corporations successfully implement the consumer model (Feenberg, 2012), extracting as much surplus value as possible all over the world. But it is in the peripheries that this process becomes even more evident: internet provision driven by profit, and service is often poor with high costs.

On the articulation of the urban level with the everyday, technical infrastructure interacts with spatial infrastructure influencing socio-spatial practices. Understanding the technocratic, heteronomous, economically driven articulation of ICTs gives insight to the processes inherent to planetary urbanisation. As extended urbanisation encroaches the countryside, the everyday recurrences that characterised the idyllic rural are gradually becoming an unfinished urban project. There emerges a urban with the prevalence of a heteronomous order conflictive with reminiscences of moderate autonomous approach to the 'inhabiting'. As technology is introduced in the urban, conflicts that were already in place tend to be reinforced. Figure 1 shows the articulations between the different social levels with a focus on the everyday, based on an adapted version of Comparative Political Urban research method Denters and Karen Mossberger (2006).

For its richness, this paper will focus on the everyday, the most intimate social level, and, therefore essential for the reproduction of social relations of production:

*Implicitly, it is accepted that daily life does not boil down to a sum of isolated acts: eating, drinking, dressing, sleeping, and so on, the sum total of consumer activities. Except when society is defined exclusively by consumption (something that is increasingly rare), there is an awareness that consideration of these isolated acts does not exhaust daily life, and that we must also attend to their context: the social relations within which they occur. Not only because each action taken separately results from a micro-decision, but because their sequence unfolds in a social space and time bound up with production. In other words, daily life, like language, contains manifest forms and deep structures that are implicit in its operations, yet concealed in and through them (Lefebvre, 2005, p. 2).*

For Lefebvre (2000), the everyday prevails in the current mode of production, even superseding economics as the defining element of capitalism. "Daily life is key to hegemony and the reproduction of capitalism insofar as it is saturated by the routinized, repetitive, familiar daily practices that make up the everyday in all spheres of life: work, leisure, politics, language" (Kipfer, 2002, p. 132). The everyday holds the key to as much as the maintenance of the status quo as to disruptions in the mode of production that might lead to insurgency: "a revolution takes place when and only when, in such a society, people can no longer lead their everyday lives; so long as they can live their ordinary lives relations are constantly re-established" (Lefebvre, 2000, p. 32).

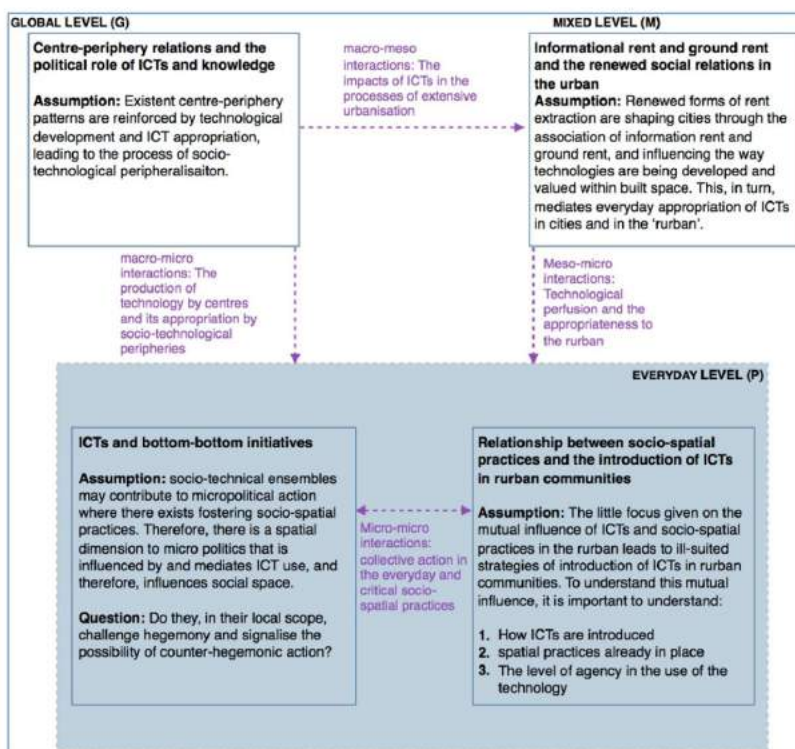


Figure 1: Articulation between the different social levels in regards to ICTs. The author, based on Denters and Mossberger (2006) comparative studies methodology.

Drawing from Lefebvre’s theory, Marcelo Lopes de Souza (2011b) defines spatial practices as social practices dense of spatiality. In this paper, the use of socio-spatial practices, rather than just spatial, aims to highlight the social character of such practices. As social practices, they serve both heteronomy—coercion, domination, imposition—and autonomy—emancipation, self-determination and legitimate self-defence, with the prevalence of the former. According to Souza (2011a, pp. 23-24), “at the level of explicit power, it is guaranteed by the top-down or outside-inside imposition of the nomos, and at the level of ‘implicit infra-power’ (which refers to ‘subliminal messages’, the imaginary), by the weight of transcendence (extra-social sources and justifications of power) and by alienation”. The result is an uneven and unavoidable sociospatial development that “[...] constitutes, simultaneously, a reflex, means and condition for the functioning and reproduction of the capitalist system” (Corrêa, 2007, p. 63).

The rurban evinces the necessity of the uneven spatial development for capitalism, specially underextended urbanisation. Rurban communities feel forced to enter the circuit of capital accumulation, and do so from a marginalised position. The exogenous introduction of urban elements in a previously exclusive rural fabric contributes to the alienation of the population leading to an outside-inside differentiation of the space.

Salto and Pendeen illustrate this process. The implementation of mining companies in both territories impelled a specific spatial configuration and the development of a roughly urbanised core to serve production purposes and industrial flux, hardly considering existing socio-spatial processes already in place. The economically driven division of space affected the social division of space and led to fragmentation. The resulting incongruous space became evident when the companies ended their activities locally.

### 3 SOCIO-SPATIAL PRACTICES AND INTERNET ACCESS IN THE RURBAN

Three rurban communities were studied during 2012-2016. The communities were approached as per information found on site and strategies developed according to preliminary assumptions of how

they implemented and use internet. The empirical research followed an Actor-Network methodology and the following analyses were based on a Marxian theoretical framework<sup>1</sup>. In Salto, a series of non-structured interviews and map aided interviews were conducted, first with known inhabitants and then with a random sample defined according to the conglomerate method. In Noiva, information was collected through in-depth interviews with members of the community in four different occasions and previous works conducted by colleagues at UFMG. In Pendeen, information was collected in the framework of the research 'Digital Neighbourhoods', in the University of Plymouth. Questionnaires and unstructured group interviews took place during 'tea-and-cake' sessions, followed by further in-depth interviews.

### 3.1 TOP-DOWN ACCESS TO INTERNET IN SANTO ANTÔNIO DO SALTO AND PENDEEN

Salto is a Brazilian district of Ouro Preto, former gold capital of Minas Gerais in the 18th century. The lack of formal historical documents implies its peripherality since the gold mining era. Salto did not connect important places or developed strong commerce or agriculture. In the 1930s, starving and unemployed villagers saw the political decision to house an aluminium industry in Ouro Preto as crucial. The job offers attracted people from nearby and contributed to Salto's timid urban development. The arrival of the aluminium plant settled the population who, not starving anymore, did not have a clear reason for mobilisation, and since then the district is dependent on the private sector. The district lacks a socio-spatial organisation able to foster any collective action, contributing to the introspection of the inhabitants. The community gathers in religious festivities and the gastronomy festival, a local event managed by some of Salto's women. Most attempts of mobilisation come from the outside and have failed, such as the village tourism initiative, where locals could use their own infrastructure to welcome tourists, practice with positive response in other districts in the region. The only attempt of internet provision by the local government was frustrated as computers were stolen on the same day they arrived at an improvised telecentre. Currently, this service, specially mobile internet, is provided by private companies.

Pendeen is a 700-inhabitant former mining village established in 1846 in the Penwith peninsula in Cornwall, UK. It developed along the road that connected Trewellard and Higher Bojewyan, both small settlements existing since pre-historic times and still heavily rural. In the 18th century, the village became an important mining hub in the region. The steep increase in population led to the expansion of the village that became a highly self-sustainable parish on its own. The crisis in the mining industry and the closure of the two most important mining companies in the 1980s led to out-migration. The village retracted, leading to the shutdown of many of its shops and the consequent reduction in local employment. Currently, Pendeen is amongst the 25% more deprived and isolated areas in UK. The recent arrival of internet was the result of a massive European Union funded programme with British Telecom to provide superfast broadband to Cornwall. Owing to the highly technocratic nature of the programme, the service has not yet reached most of the population. An initiative of the local community centre and volunteers bridges the gap between infrastructure and local needs, by providing support and infrastructure for the population to benefit from this service independently from the program.

#### 3.1.1 INTROVERTED SOCIO-SPATIAL ORGANISATION AND USE OF INTERNET IN SALTO

In Salto, the implementation of the mining industry in the region had a great impact on subsistence agriculture and led to a dependence on external produce, aggravated in the last years by the cash inflow of commuters and the implementation of Bolsa Família (a social welfare programme to counter extreme poverty in Brazil, in loose translation: family bursary) by the Federal government. Still, it is possible to observe the prevalence of a family economy, based on male productive labour and female reproductive labour and agriculture, that defines the community's everyday. The socio-spatial dynamics of Salto on weekdays prevail on the private sphere, largely dictated by the division of labour: reproductive labour is performed within the households and men are often out of the village for work. The recent change in employment dynamics caused by the shutdown of the local industry suggests a shift in the local economic

<sup>1</sup> The conflicts and possible reconciliation of both fields are dealt in Melgaço and Baltazar 'Anthropophagy In Planning: Building A Theory From The South Through An Association Of Actor-Network Theory And Historical Materialism' in this volume.

and social organisation, with women becoming the primary source of family financial support. For instance, younger generations of mothers rely on the elderly relatives to help raise their children.

Despite an everyday solidarity at the individual level typical from rural settlements, the introverted dynamics of the community and the absence of basic infrastructures (both social and spatial) contribute to a lack of collective engagement and action. It was often stated that the problem of Salto is that “each one is for themselves”. As pointed, “what is missing here in Salto is difficult to get, because what is missing here is cooperation. Here you have, as they say, you know, you just have people to pull you back, right (sic)? Now, to help you, that is hard.” Another inhabitant believes that this lack of collective spirit is the elderly’s fault, and that Salto residents will only be united when “the old die” for the young to take the initiative. Nevertheless, several of the young people interviewed have no interest in taking an active role in the community, and are often motivated to leave the district.

Currently, broadband internet is available through local providers at low quality and high prices, costing the equivalent of a seventh of the minimum wage. Mobile internet, though also low-quality and expensive, is more disseminated as pay-as-you-go service with no long-term commitments and no need of computers. Locally, the way they use the internet reflects the way they use their scant public space and shows the overlapping of previously existing physical networks: the use is based on individual needs and is based on existing social and economic hierarchies. Once Facebook is prevalent, the population has much less access to alternative sources of information and knowledge-building tools, limiting the depth of use of the internet. Furthermore, there is little effort to share local knowledge. Some will use Facebook to advertise their economic activities, such as the quituteiras with the gastronomy festival and the local tourism agency. But still, most of the population do not know how to use other tools available online. More recently, WhatsApp is also being used for people to communicate, but again, it is mainly reproducing the networks they already had before. As it is, the internet fosters only a marginal improvement in the quality of life of Saltenses.

### 3.1.2 THE KEY ROLE OF THE CENTRE OF PENDEEN IN BROADENING INTERNET USE

Pendeen’s current socio-spatial processes also reflect the deprivation and isolation from the 1980’s crisis in the mining industry and the unbalance in the local economic triad: fishing and agriculture were heavily industrialised, and farmers could not adjust and compete. The lack of open spaces for everyday and spontaneous liveliness means that extracurricular activities are organised by volunteers, mostly in the Church and the local community centre—the Centre of Pendeen. These activities are essential for those inhabitants who cannot resort to external sources of leisure or knowledge building.

The Centre of Pendeen is the most recent example of how local community engagement leads to the improvement of local conditions. The community centre was implemented in the former Men’s Institute facilities, created in 1931 to alleviate the high unemployment in the region by providing social support and events. Since then, the centre has become a social and spatial local hub, where inhabitants have the opportunity to meet at social events, such as the farmer’s market, the cinema evening and the different clubs; and to seek advice and help, as the centre organises computer, CV writing and employability sessions run by volunteers. Nevertheless, the community has a track history addressing common issues collectively. Back in 1966, for example, the community raised funds for improvement works to the slipway and path at Boat Cove.

More recently, in 2014, together with St Just’s community, they devised a both online—through social networks and an online campaign—and face-to-face strategies to resist the government decision to reduce the opening hours of the library of St Just. They arranged to continuously borrow books as a symbolic gesture of the importance of the library for the community.

The centre has also an essential role in regards to internet availability. Even though internet was available much earlier, in 2013, superfast broadband was installed in the village as part of the pilot EU programme Superfast Cornwall. Nevertheless, the high costs for individual subscriptions and levels of ICT illiteracy it was virtually impossible for a large proportion of the population to access internet. The centre of Pendeen acts as an intermediary, not only subscribing to the service, but also by securing computer infrastructure and creating different courses, clubs and support sessions based on broadening the concept of access to effective use (Gurstein, 2003). With the interference of the Centre, Pendeen is now regarded as one of the

most successful examples of the Superfast Cornwall pilot. Volunteers advise and tutor the community catering for their individual needs and many people will use the internet to gather information and as a knowledge building tool, even if rudimentarily. Others will use internet, especially social media, to mobilise, as it was seen in the attempt to keep the library at Saint Just's open. Even if on the personal level some have decided to refrain from using the internet on a regular basis, they still see the changes brought by the infrastructure allied with a supporting place for its use.

Local ties have not changed drastically with the penetration of internet, as people still rely heavily on more traditional modes of communication, such as landlines or face-to-face encounters. Mobile technology and email exchanges have been embraced to solve everyday issues. A clearer change can be observed on networks at a broader scale. Software such as Skype have become part of the everyday of a large part of the population, allowing the expansion of social networks. The patchwork club is a good example of how internet access contributes to the expansion of localities. The group, formed in its majority by elderly women, keeps close ties to other clubs located in other countries, such as the USA. They use Facebook as a common platform and have regular meetings on Skype to exchange knowledge. Social media is also boosting local small businesses, such as the Lil's Fish and Chip shop, listed on tripadvisor.com. These examples highlight that internet is becoming an important instrument in the everyday of Pendeenens, but there have been no profound changes in the socio-economic structure of the community. Nevertheless, despite its collective appeal, the reach of the Centre's actions is still very limited, concentrating on the improvement of the quality of life of its inhabitants on an individual basis and not necessarily leading to any social change.

### 3.2 NOIVA DO CORDEIRO: SOCIAL DISRUPTION ENHANCED BY INTERNET ACCESS?

Noiva is a community in the fringes of Belo Vale, a 7.000 inhabitant city in Minas Gerais, Brazil. According to local accounts, the community started when, in the 19th century, newlywed Dona Senhorinha left her husband for Francisco Fernandes fleeing to the outskirts of a nearby village. Due to strictly catholic rules, the couple was excommunicated and raised their family in isolation, creating a strong bond among the family members. Fifty years later, their granddaughter Delina married an evangelical minister who founded a rigorous religion 'Noiva do Cordeiro', reinforcing local prejudice against the community. Harsh rules, which included daily prayers, constant fasting and public punishments led the community to extreme poverty. It was only in the 1990s, with the minister's death, that the community concerted to fight poverty. Its inhabitants have started to undergo a process of critical awareness (Demo, 1995) and questioned their own peripherality.

They have created traditions that bond the younger generations together but also reversed their isolation by attracting attention to their own cultural ties. The arrival of steady rural internet in 2011, through the federal programme GESAC, expanded and accelerated this opening up process, first allowing the community to improve the quality of life and then increasing the interface with capitalist activities, contributing to profound changes in local socio-spatial organisation.

Noiva has a peculiar social structure when compared to other small Brazilian rural communities. It results from an internal movement of rupture from local strict ruling based on religious grounds and a recent movement of openness by allowing and creating social interfaces with the outside. Both processes are leading to a systematic re-appropriation of local space. It started with a symbolic change: in the 1990s the church was transformed into a 'bar'—a space for celebration. The public space slowly transformed into an engagement arena, where common struggles could be addressed. Overhauled, space marked a shift on their perception of public contributing to a socio-spatial organisation based on a communitarian spirit that can be acted upon the space itself.

Despite perceiving leadership within the community networks (especially D. Delina, the matriarch and Rosalee, one of her daughters), they organise themselves non-hierarchically to assign the chores and the productive work. To avoid female out-migration, women ventured in productive activities for income, specially sewing: they started producing lingerie, first joining previously owned non-professional sewing machines. The factory started with no fixed working hours and they would interrupt production every cropping season, when everyone harvested for subsistence agriculture. Products were initially sold in Belo Vale, at craft fairs in Belo Horizonte and other cities and to visitors that go to the community. Formally, they created two associations that allow them to access public funds and legally sell what is

produced. Due to the group cohesion, Rosalee was elected city councilor, defending their rights and interests in the governmental sphere. Since the 2010s, the community ventured in medium-scale agriculture by first cultivating pepper and tangerine to supply the Redistribution Centre of Minas Gerais, and then diversifying production. Specific cultural activities were created to cultivate local bonding and create a common cultural identity, as well as to produce and share knowledge. These were later developed into Noiva do Cordeiro em Show, diverse professional cultural groups, including a Lady Gaga cover, their most successful number. From the 2000s onwards, they invested in regional networks to counter isolation. They shared their diverse cultural and educational activities with marginalised communities in the region, changing the negative perception. The foreign interest in the community lifestyle is explored in the form of 'social tourism', with clear implications in their socio-spatial organisation that is changed to please visitors, often conflictive with previous practices. ICTs, specially internet, have an important role in this change. If, at first, they were digital illiterate, in 2006 they became a reference in the region for establishing the first rural informatics lab (CIDEC) through a partnership between the local association, the Committee for Democratisation of Informatics and Vale Foundation. Rapidly they became known as rural pioneers. Internet was first available in CIDEC in 2008; and in 2011, a governmental project guaranteed broadband internet at no cost. It soon became an essential tool, used for research and knowledge building, as knowledge was essential for the community's turn: to disrupt radical religious beliefs; to overcome prejudice from neighbouring regions; to improve economy, with these search for references to the lingerie collections or inspiration for the artistic groups' performances; to reinforce the local lifestyle through courses for younger generations, games and theatre plays; and to learn and exercise their rights.

Regionally, CIDEC gave the villagers a voice in the region leading to a local inversion of power relations: Noiva acquired a centrality it never had. The importance of CIDEC faded away in the following years, as equipment aged and mobile internet was made possible through the acquisition of a mobile antenna.

Locally, they use mobile phones to talk to each other, rather than knock on doors. The pervasiveness of mobile internet is observed in the increasing importance of social media in the community, if compared to 2013, even surpassing the importance of information and knowledge (Fig. 2).

There are important implications to the pace of explosion to the outside: spectacularisation of the festiveness of their cultural; the loss in importance of bonds with nearby communities; and an increased interface with capitalist activities, observed in the importance given to tourism and the professionalisation and diversification of production, among others, as it can also be seen in the time comparison in Fig 1.

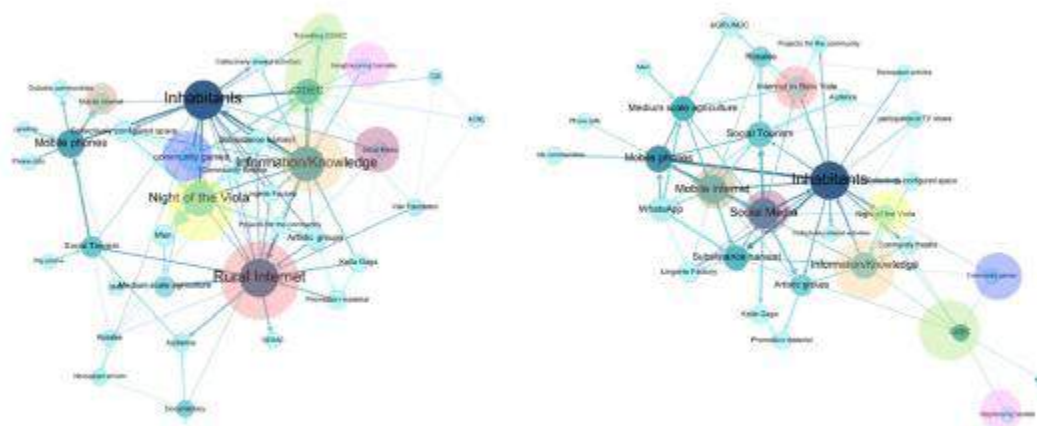


Figure 2: 2013-2014 and 2015-2016 networks of introduction of internet and some elements to be discussed, produced with the use of Gephi software. Source: the author, 2016



## 4 CAN INTERNET HELP COMMUNITIES CHALLENGE THEIR PERIPHERAL POSITION?

Socio-economic and geographical peripheries have been often neglected by Eurocentric simplified narratives that take the marginalised 'Other' for granted (Noxolo et al., 2012) by pinning centres as fixed points that emanate 'proper' knowledge. This macrological approach fails to account the 'micrological texture of power' (Spivak, 1988, p. 279) sealing the fate of the marginalised as eternal recipients of knowledge. While ICTs reinforce the macro centre-periphery conflict, as technological infrastructure is unevenly distributed in the globe, it confronts the stability of the centre-periphery dichotomy by allowing for "less contiguous modes of communication are subversive tools for organising new kinds of centrality and horizontal concentration" (Merrifield, 2013, pp. 40-41), time and place specific.

For Andrew Merrifield (2013, p. 42), centrality is no longer being at the centre, "[it] calls out for people and acts, for situations and practical relationships". It is never fixed and needs constant negotiation and mobilisation, reflecting the encounter of citizens. That is because centrality is not about fixation—not of people, situations or space. As much as it is related to social relations, it depends on how such relations are spatialised. This study points that communities that have weaker ties tend to reproduce the pattern in the physical and digital spaces they occupy. ICTs may afford centralities, but also further socio-technological peripheralisation, influenced by their implementation in the everyday and interaction with existing socio-challenging spatial practices. Associated with ICTs, space responds to change and acts onto people fostering or hindering action. And the way the internet is being introduced in the rural reinforces peripheralities by validating the exertion of power from the different social levels in the everyday: technology is produced in central countries and implemented top-down with little bottom-up active response, often leading to conforming uses of internet that contribute to the reproduction of the already existing oppressing conditions.

Of all three communities presented, Salto was the one showing the highest level of passive appropriation of the internet. There, the activities carried online reproduce the dullness of their everyday—"insofar as it is saturated by the routinized, repetitive, familiar daily practices that make up the everyday in all spheres of life: work, leisure, politics, language, family life, cultural production" (Kipfer, 2008, p. 199). The overall use of social media reveals a shallow exploitation of the internet that can be grasped by understanding the hegemonic construction of access and mirrors a hegemonic production of space. Thus, it is possible to observe that "media (institutions, technologies and representations) disembody social practices, while simultaneously making these practices and experiences dependent upon the media as such" (Jansson, 2010, p. 179). Despite its formal centre—where the Church, the square and small commerce are located—it has no centralities. Its longitudinal spatial configuration, reinforced by two spatial discontinuities—the river and the water channel—hinders action and contributes to the reproduction of political poverty, the inability of a given community and its individuals to mobilise in the various spheres of common and individual life (Demo, 1994). Despite also being a marginalised periphery, Pendeen has managed to develop a local centrality that extrapolates its limits with the implementation of the Centre of Pendeen, only possible because of the existing collective engagement in the village. The centre, in turn, stimulates this engagement through targeted actions that also contribute to marginal micropolitical action. By doing so, the community centre is actively contributing to the improvement of livelihoods in the region.

Initially, Noiva developed a local centrality by strengthening existing connections and investing in regional connections mediated by ICTs. D. Delina's house (now communitarian) became also a centrality acting as a nodal point for decision-making and bonding. It became a centralised periphery regardless of its economic-geographical position, which no longer strongly defined who they were. Noiva benefited from being on the outskirts of capitalism: they developed their own conviviality rules and created interfaces with capitalist society when seen fit. With this arrangement, they were able to improve their living conditions without compromising their beliefs and social structure. In fact, its centrality was not connected to production capital, but to information and knowledge—their lifestyle was a valuable capital to be traded. Nevertheless, the unfolding of the community throughout the last five years leaves the question whether centrality is unassailable from centralisation. Noiva became a reference for the nearby communities, as it was provided with something unique—be it technology, knowledge or a social organisation that calls the attention of outsiders. That granted them a symbolic capital that, seen as such, became a source of power. Could Noiva be a new centre that feeds off from its peripheries? Recent developments suggest that no, because it is difficult to operate in the outskirts of capitalism without being swallowed by it. Looking from outside, it seems that they are willing to bypass the regional ties built over

the years (and even the central position they occupied) in favour of closer relationship to already established centres, such as Belo Horizonte or São Paulo. They seem unaware of the compromises that such a decision demands. Drastic changes in their working patterns are being followed by adaptations in their socio-spatial organisation, affecting their own everyday, and the long-lasting consequences of this shifts are still not clear.

## 5 INTERIM CONCLUSIONS

The three communities illustrate that appropriation of internet follow, generally, existing levels of peripheralisation and rarely contribute to a profound socio-spatial development. They also ascertain that, to envision change from within, communities need to produce fostering spaces for the internet to be better explored and for the stultifying tendency of the everyday to be overcome, towards micropolitics. But that is not enough. Salto and Pendeen suggest a conforming approach to the internet, which is not used to overcome peripherality as such, but as means to improve the quality of life with very limited production of local knowledge. Differently from Salto, though, Pendeen has a nodal point, the Centre of Pendeen, that works as a very local centrality and contributes to (moderate) collective mobilisation. In Noiva, the internet briefly was used as a tool to challenge peripherality, despite being a periphery. While they did not innovate internet use, the way it improved on the local production of knowledge impacted on their thinking, and, to a certain extent, questioned the mode of production. Their socio-spatial organisation, coupled with the internet allowed them to become a regional centrality. Still, the same internet increased the interface with capitalism and re-shaped part of the community, which, on its turn, offset its disruptive potential. Noiva underscores that even if the internet contributes to the furthering of previously existing socio-spatial autonomy, it may, over time, foster heteronomous and conflictive socio-spatial practices, illustrating a vicious circle where gains in autonomy allowed by effective use of the internet are further absorbed in the system because of the internet model. To conclude, the more ICTs become essential to the maintenance of capitalist structure, the less likely they will formally mediate social change. The way the internet privileges the consumer model shadows horizontal forms of solidarity, where alternative centralities that not based on structural dependency can be built among peripheries. We need to continue looking for bottom-bottom encounters that blossom with the use of internet (even if produced by the centre) and understand the socio-spatial practices at place. These might hold the key to new forms of micropolitics, and to the redefinition of centralities as envisioned by Lefebvre without relying on the relations established by the capitalist mode of production. Nevertheless, detecting the insurgent rural is a combination of patience and fortuity. Seeds might abruptly appear, and in the same intensity, be re-absorbed into the system.

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