Viable, Sustainable or Resilient?

Understanding the hyperlocal business ecosystem

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Abstract

Hyperlocal media are increasingly prominent in local media ecologies. However, economic pressures are their biggest challenge and are therefore our main thematic. The study is based on empirical data from 35 hyperlocals in Sweden, the UK, France, the Netherlands and Belgium. We present a conceptual framework of viable, sustainable and resilient models and find that hyperlocals are diversifying their revenues. Drawing on business ecosystems as a theoretical approach, we find these hyperlocals are surviving by forging symbiotic relationships with media, businesses, advertisers and communities in their environment. With its focus on imbalanced and evolving relations, the approach offers a broad framework to explain how hyperlocal business models are developing through a dynamic system of proximal interdependencies. The results contribute to new knowledge by explaining the revenue diversification of hyperlocals in the digital ecosystemic space.

Keywords: hyperlocals, revenues, business models, business ecosystems, media ecologies

Introduction

Hyperlocals are online news services pertaining to a specific local geographic area. Their prominence over the last decade in media ecosystems has been gradually renewed. In general, they fill an information gap left by mainstream media. In this study we focused on Western European hyperlocal media that operate without structural state subsidies in media environments that are experiencing declining print and broadcast services. This has favoured the growth of journalism from and within communities (Radcliffe, 2012; Tenor, 2018). Where traditional media have their specific national political, professional, cultural and legal characteristics, online-only local media encounter the same challenges everywhere: audiences that are not accustomed to paying for online content, a difficult advertising market with a dominance of international players like Google and Facebook, and little or no structural state support. Although we studied hyperlocals in five different countries we found no clear national differences. All operations face more or less the same issues, allowing for findings from this study to be as relevant for local online operations in Nordic regions as in different national environments.

A scarcity of human and business resources as well as fledgling business models online hinder resilience for hyperlocals in the UK (Harte et al., 2016) and internationally (Horning, 2012; Nygren et al., 2017; Van Kerkhoven & Bakker, 2014). We delve deeper into the digital shift to explore the business models of hyperlocals and their sustainability. Our primary aim was to explore business models as a way to understand revenues, not the converse. We move forward by asking if revenues have diversified, and if a diversification of revenues contributes to increased sustainability. A conceptual framework of viable, sustainable and resilient models is presented to help navigate the emerging confusion around hyperlocal business.

In fact, little is known about the economic experiences of hyperlocals, and research evidence on how and why revenue diversification develops remains nascent. Revenue mapping alone would stop short of answering this question. We add to the field by applying business ecosystems specifically to problematise the revenue models of hyperlocal media. Hyperlocals are presented as dynamic entities, which shape, and are shaped by, relationships of varying size, power and resources that exist in relation to one another but where relations are not perfectly reciprocal: some entities profit more than others. Crucial in this approach is the focus on complex and permanently changing relationships. If ecosystemic relationships exist, what potential effect does such close relations have for sustainability?

With our findings, we expand a nuanced understanding of the experiences of hyperlocals in economic terms. We also propose ecosystems as a theoretical framework more broadly to the media management community as a way to understand revenue diversification in fast-changing digital media landscapes.

A shifting journalism business model

For more than a decade, journalism around the globe has been grappling with the demise of advertising-led business models (Downie & Schudson, 2009; McChesney & Nichols, 2010) seeking alternative revenue route maps (Nel, 2010) and questioning the impact of falling profits and growth on the industry (Bruno & Nielsen, 2012; Fenton, 2011; Levy & Nielsen, 2010). Local media face multifaceted business challenges from the dominance of technology platforms, the erosion of defined geographic audiences and decreased reader loyalty. The lowered price of algorithm-based advertising is insufficient to cover the losses of print revenue (Chyi & Tenenboim, 2016) and nascent development of alternative revenues keeps the earnings of many niche media small (Cook & Sirkkunen, 2015). Low barriers to entry mean many new competitors in fast-changing markets (Briggs, 2012). Legacy publishers have withdrawn from communities and some local newspapers have closed (Lewis et al., 2007; Ramsay & Moore, 2016).

Incumbents have attempted to enter the hyperlocal space with mixed success. In the UK, the Guardian Local experiment closed in 2011, failing to make it commercially viable. Regional publisher Northcliffe Media ran the franchise Local People, a network of paid community publishers, but it closed in 2013. Some hyperlocal chains cover many communities and even whole countries driving synergy from joint advertising, sales and shared resources such as The Examiner and Patch (USA), MyHeimat.de (Germany), Dichtbij.nl (the Netherlands, closed in 2017) and Belang van Limburg (Belgium).

Against this backdrop, the role and prominence of hyperlocal media is changing. The disruptive nature of the internet and open-source technologies is prompting a shift from large media conglomerates towards smaller organisations and entrepreneurial individuals. Hyperlocal media are growing up from the grass roots organically at varying paces and maturity. Usually still in a development phase, it is hard to define a clear standard local news operation and whether a viable business model is emerging (Cook et al., 2016).

In the UK, the term "hyperlocal" covers news that is locally drilled, but the size of the area, degree of entrepreneurialism and the contribution to a democratic deficit differ (Williams et al., 2014, 2016). Howells (2015) explores the dangers of local newspaper closure in one Welsh town, Port Talbot, finding the community underinformed, under-represented and unable to access timely local information. Swedish researchers find hyperlocals able to fill only some of the gaps from declining legacy media (Nygren et al., 2017). They find hyperlocals and legacy media need the same factors for success: dense areas and an advertising base. They find that "hyperlocal is more a question about the relationship to the local society than a question about technical platforms" (Nygren et al., 2017: 47). In the Netherlands, a study of 123 hyperlocals find good content performance and an entrepreneurial spirit but that running a sustainable business in the long term is hard (Van Kerkhoven & Bakker, 2014).

The business and revenue perspective of hyperlocal operations is not often covered in research, as the focus is usually on motives and content (Chadha, 2015; Costera Meijer, 2013; Hess & Waller, 2015; Paulussen & D'heer, 2013; Thurman et al., 2012). Kurpius and colleagues (2010), studying US hyperlocals, found not a single recipe for financial success, identifying a research gap in how different hyperlocals actually work or if they have potential for sustainability. In terms of advertising, ultra-local sites are more appealing to local advertisers for local banner adverts than community or regional sites (Horning, 2012: 103). In the US, Metzgar and colleagues (2011) identified five categories of hyperlocal funding sources, from advertising to donations; however, they stopped short of a comprehensive funding typology. A study of Dutch hyperlocals found "the lack of resources has triggered ingenuity and forced owners, employees and volunteers to adapt to new situations" (Van Kerkhoven & Bakker, 2015: 199). Harte and colleagues (2016) concluded from 34 interviews with independent hyperlocal practitioners that many draw upon a civic discourse rather than business acumen. They focus more on the range of attitudes to hyperlocal economics, ranging from those seeking a market opportunity on the one hand to those resisting income generation on the other. The hyperlocal entrepreneur is not per se the archetype in this field, although hyperlocals often need to develop some entrepreneurial skills (Pekkala & Cook, 2012). All in all, there is conceptual confusion between viable, sustainable and resilient models and little is known about the business model.

Faced with the increasing commercialisation pressures on news organisations online (Phillips & Witschge, 2012), focus has turned to revenue diversification (Grueskin et al., 2011; Kaye & Quinn, 2010). Diversified revenues are the key to success for digital journalism entrepreneurs in Latin America (SembraMedia, 2017), and in the US, local news outlets are trying to include subscription or membership pathways, paywalls and advertising (Holcomb, 2018). In Norway, local newspapers have implemented paywall strategies with some success (Olsen & Solvoll, 2018). Others have taken steps to shift editorial–business relationships to maximise organisational operations (Chadha, 2016).

Whether broader revenue portfolios alone can lead to prosperity is less clear. Massey (2018) found that non-profit web-native news sites did not perform any better with diverse revenues, and for-profits were financially worse off for diversifying their revenues. Overall, maintaining stable revenues through scale, breadth and depth (Jenkins & Nielsen, 2018) has been the key to sustainability at the local level.

Research on business ecosystems

Approaches thus far fit with existing definitions of a business model and business model innovation through various resource components (Amit & Zott, 2001; Chesbrough, 2003; Teece, 2010). Our starting point is to emphasise the importance of revenues and to allow for adaptation. Here a business model is "in the sense of being self-sustainable on the basis of the income it generates" (Brousseau & Penard, 2007: 82). Business models need to allow for elements of change (Linder & Cantrell, 2000) and "how the firm receives and provides value to other entities in the value network and how the entities within the value network inter-relate" (Lambert, 2011: 7) are of crucial importance. Business models are a way to emphasise adaptation and viability (Weill & Vitale, 2001) not just as a value chain approach, but also from the perspective of a multi-actor network, where it is important to consider who is doing business with whom (Gordijn & Akkermans, 2001). Furthermore, we echo Chaharbarghi and colleagues (2003) in regard to the importance of context. Businesses develop in dynamic environments where environmental variables are non-linear and businesses have to constantly adapt.

Drawing on work by Moore (1997), we apply business ecosystems to suggest firms exist in a niche and need to co-evolve with others. Hyperlocals are placed within a complex system of changing media trends affecting revenue creation and capture. We reject strict orthodox models of maximisation that are ill-placed to explain how hyperlocals deal with "exogenous change" (Nelson & Winter, 2009: 399) in favour of the ecological system where all the species are influenced dynamically when they are competing for finite resources (content, direct and indirect revenues, people, support, distribution) with other entities in the network vying for survival. Relations are non-reciprocal and non-linear: some entities profit more than others (Gowdy, 1992).

Media ecosystems research in journalism has focused more on exploring ecologies between media producers, the flow of information and the role of news organisations in networked media ecosystems (Anderson et al., 2015; Deuze et al., 2007; Lowrey, 2012). Studies use ecosystems to understand media as a flow and power dynamic: for example, the Baltimore news ecosystem (Project for Excellence in Journalism, 2010) in which half of the news in all online and offline channels was traced back to the local newspaper. Anderson (2010) also concluded that centralised legacy media were extremely important when exploring the Philadelphia news. Nielsen (2014) has shown the unequalness within ecosystems and concluded that new initiatives rely on keystone media, the main providers of professionally produced news. The ecologies approach has been applied to the sustainability of community media in the UK (Baines, 2012). Hatcher and Thayer (2016) add empirical evidence in their exploration of relationships among news organisations to determine how willing journalists were to form a more collaborative network and find community newspapers and start-ups to be more willing than legacy.

In their analysis of UK hyperlocals, Harte and colleagues (2017: 160) explore "mutually reinforcing online, and offline, practices that underpin relationships between producers and the communities they inhabit" using the frame of direct, indirect and sustained reciprocity. Direct reciprocity is evidenced in volunteers giving their time to hyperlocals while sustained "lasting forms of exchange" (Lewis et al., 2014: 230) are harder to evidence as they rely on a steadier flow of mutual acts of goodwill (Borger et al., 2016). However, the concept of reciprocity is not as well suited to explaining the imbalanced and unequal relationships that are constantly changing in and around hyperlocals that face economic pressures. We also prefer the ecosystem approach over actor network theory (Latour, 2005), which is tailored to analyse flattened adoption of technological innovations in a social context and is therefore less suitable here. Rather, an ecosystem approach via new shared services can address the changing needs and capacity of local news (Aguiar & Stearns, 2016).

Research methods and conceptual framework

Our purpose was to present the business models of 35 hyperlocals in the UK and Europe. Our starting definition of hyperlocal was taken from Nesta's Destination Local programme in the UK as online news or content services pertaining to a town, village, single postcode or other small geographically defined community (Radcliffe, 2012). Following Friedland (2012), we perceived hyperlocals as a layer above personal blogging and social media use but independent from the news coverage of legacy media outlets.

Our sample was in line with the definition of Metzgar and colleagues (2011: 774), who use six criteria: "[H]yperlocal media operations are geographically based, community-oriented, original-news reporting organizations indigenous to the web and intended to fill perceived gaps in coverage of an issue or region and to promote civic engagement." The aim was to explore how hyperlocals from five countries organise their business and generated revenue. We therefore used purposeful sampling from research teams in each country to select a diverse range of hyperlocals in the countries from our trusted networks: smaller and larger operations, hyperlocals in villages and cities, chains and one-person operations (see appendix). We included services from Sweden (2), the UK (13), the Netherlands (12), France (6) and Belgium (2) as these were territories with a similar hyperlocal media landscape in regard to growth, challenges and innovation. While the categories for inclusion could not be standardised, all had moved beyond the first start-up period. This empirical data was gathered in autumn 2015.

The study aimed to identify how revenue diversification contributes to sustainability. Therefore, interviewees self-selected as viable, sustainable or resilient and selected a range for total incomes for the last financial year. A conceptual framework of viable, sustainable and resilient was developed to move beyond the application of terminology interchangeably (see Table 1) and to allow for correlation between total revenues, revenue practices and conceptual classifications. It was designed to close down interpretation and draw boundaries between models, while reflecting business model development as stages.

Table 1. *Conceptual framework for viable, sustainable and resilient hyperlocal business models*

Classification	Definition	Example
Viable	Sites fulfilling a demand or perceived need for content by the audience	Likely to generate €35,000 or less. Often one-man operations working with limited resources. The Charlton Champion, UK, was created in 2010 as an addition to a sister site, 853 Blog. Both created out of passion and frustration, they continue to operate solely through the motivations of the founder. Less focus on page views and generating income but a heavy focus on investigative journalism.
Sustainable	Able to sustain a flow of content to meet that need over time, and likely to draw some "money" as a wage, cover expenses of contributors and/or cover costs of equipment, web hosting, printing etc.	Annual income of €35,000 or more likely. More often a team operation mixing paid staff and some volunteers. The Lincolnite, UK, is an original digital start-up that is now dominating the local scene. Launched in May 2010, the website receives an average of 500,000 a month. Also runs a digital business magazine, job listings, hosts their own digital awards and ecommerce.
Resilient	Media can sustain a flow of content and make profit, or grow/scale the operation by investing the earned revenues	Can have varied incomes but more likely to have annual income above €35,000. Often more structured resourcing allocation. De Utrechtse Internet Courant in Utrecht has an online TV station and also makes videos for third parties. It started in 2011 and has a professional editorial and sales staff. Holding authority to account is their main objective.

We wanted to focus the lens on the lived experiences of hyperlocals as they try to carve out sustainable revenue models in day-to-day operations. A content analysis established the type of content outputs, the social media footprint and the publishing frequency. The number of adverts on the website home page was also counted. Semi-structured interviews were then carried out with site owners or similar roles covering four parts: the company structure and operations (launch date, objectives, content strategy, sources of content, business structure, staffing, costs, technical website information), audience (engagement, traffic analytics), revenue streams (types of revenues, advertising, sales, partnerships, donations, events, marketing) and final considerations (challenges and opportunities). The questionnaire was structured to allow for consistency of questioning across a team of nationally divergent researchers, operating in multiple languages. The questions were developed from previous research identifying sustainable service- and storytelling-orientated business models on the internet (Sirkkunen & Cook, 2012), consultations on journalism sustainability and revenue mapping (Stearns, 2015).
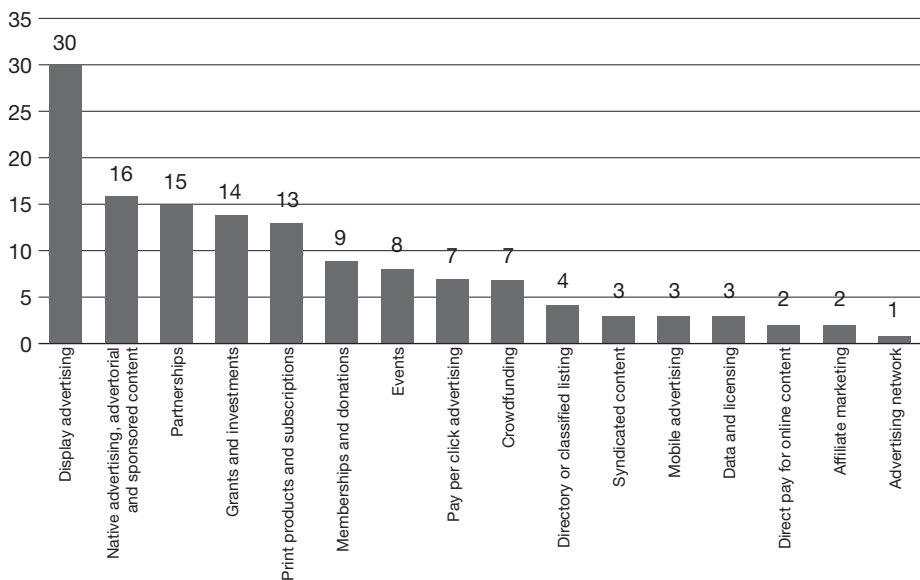
Thematic coding (Gibbs, 2007) allowed content production and revenue practices to emerge, including examples of revenue rates. The coded data was correlated against

the conceptual framework and annual total revenue categories to evidence patterns in business practices. The data was first categorised and analysed as a toolkit of best practice within national media systems and outputted to hyperlocals (Cook et al., 2016). To further explain revenue models, analysis of the semi-structured responses allowed for a taxonomy of business ecosystemic relationships with accompanying examples to be extracted. This approach was crucial in understanding the complex relationships that are permanently changing. It detailed an exploratory understanding of the business ecosystem around hyperlocals and the potential such close attachment to a community has for sustainability.

Results on hyperlocal business models

The majority of the hyperlocals in our research made less than €35,000 and eight made more than €142,000. In keeping with other research, hyperlocals had diversified their revenue models (Smyrianos et al., 2015): 14 cases had five or more revenue streams. The most common model was three revenue streams. Only one case relied on one revenue stream. There was no one-size-fits-all revenue model as diversification happened in varying granularity across all the cases (see Figure 1). Only seven cases used any form of pay-per-click advertising including Google AdSense. Despite only four cases using classified or directory listings, they were noted for their success in offering highly targeted advertising.

Figure 1. *Diversification of revenues (number of hyperlocals)*

Comments: The number of examined hyperlocals was 35. Many of these had diversified revenue models.

The dominant revenue was display and native advertising. Display adverts, typically image-led adverts sold by shape, were often designed in-house or directly by clients. Available advertising units and dimensions varied considerably, as did the rates. The

best-performing dimensions and rates were at *The Lincolnite* and *Shetland News*, UK, where digital billboard "mastheads" sold for around €566 per month, although €57 was the most common. Many produced graphics in-house for free or at a small charge. The Swedish cases followed the trend: 321an's rates ranged from banners at €75 to €258 per month. Neither Swedish case used pay-per-click, mobile or social media advertising. Eight of the services had more adverts on the front page than news items. Native advertising (including advertorial and sponsored content) took the form of home page takeovers, themed content and sponsored talk shows. The two sites with the highest revenues used partnerships, display advertising, native advertising, print products and events. Native advertising was notably uncommon in the French, Swedish and Belgium cases but dominant in the UK and the Netherlands.
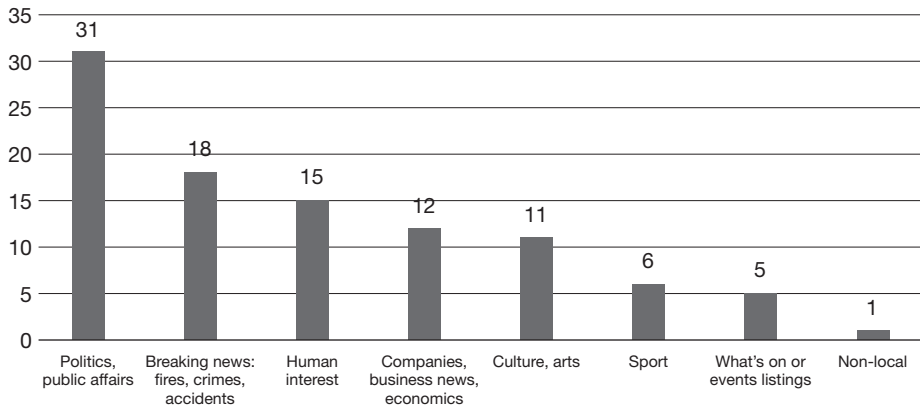
Results on sustainability

Well over half the services claimed they were sustainable (13) or viable (12). There was a broad relation between total annual income and the viable, sustainable and resilient framework: even with low income a service can be sustainable or resilient. However, there were proportionally more sites with higher revenues describing themselves as sustainable or resilient (see Table 2). Sustainability and resilience did not directly result from the logic of more diversification: 12 sites describing themselves as sustainable or resilient had fewer than four revenues, while nine sites had five or more revenue streams. Hyperlocal sustainability is not just a question of diversifying revenue types.

Some felt they had sustainable content but irregular incomes. Freely available publishing tools were used, with WordPress being the most popular. Of the 35 services, 23 described themselves as online-only operations, seven as online and the remaining five as multi-channel. Most services, 25 out of 35, published content on a daily basis but there was high variance in publishing schedules and outputs. Politics and public affairs content was dominant (see Figure 2). All services used social media heavily, with six operations having more than 10,000 followers on Facebook. Along with Google Analytics, there was a high use of audience demographic analysis to distinguish content and distribution channels. Half of the services had a Youtube channel.

Table 2. *Range of total annual income set against self-evaluation as viable, sustainable and resilient*

Resilient					Sustainable				Viable			
more than €355,000	between €142-355k	between €35-142k	under €35,000	unknown	more than €355,000	between €142-355k	between €35-142k	under €35,000	more than €355,000	between €142-355k	between €35-142k	under €35,000
0	1	3	3	1	2	3	2	6	0	1	2	9

Comments: The number of examined hyperlocals was 33. (Two of the 35 examined hyperlocals did not self-select as viable, sustainable or resilient.)

Figure 2. *Content (per cent)*

Comments: The content analysis was based on the ten last items published by each hyperlocal. Thus, in total 350 items were coded.

Results on business ecosystemic relations

The study showed hyperlocals leveraging relationships to diversify their income streams rather than relying only on banner advertising or sales. In some cases, these were formal arrangements to share content, services or work on mutually beneficial projects. In others, they were informal arrangements with a wide range of actors. These direct and indirect revenue opportunities developed within the local media ecology across a community of volunteers, stakeholders and more structured organisations to form a dynamic system of interdependencies cooperating and competing. The symbiotic nature of relationships at least in part explained revenue diversification. Hyperlocals were not distant from revenues or sources of revenue but rather in and of them. Our taxonomy provides an overview of the business relationships that formed around hyperlocals, relating in some way to revenue sustainability: volunteers, memberships and donations, community events, other businesses or government bodies, other publishers, advertisers, sales and marketing (see Table 3). Analysis showed a broad correlation between those with more relationships and being more sustainable or resilient, or earning more than €35,000 a year. Therefore, we can say that a business ecosystemic approach can help sustain hyperlocal journalism.

Volunteers

All but six hyperlocals used volunteers in some way. Staffing overall was a combination of full-time, part-time, freelance and volunteer staff, although a small fixed staff was the dominant resourcing structure. Volunteers offering distribution services were offered rewards such as a subscription for free (worth €30) in the case of *321an*, or a work placement through the Swedish Public Employment Service [Arbetsförmedlingen]. According to the Swedish hyperlocal *Sydnärkenytt*, 60 people were encouraged to cover their own stories and submit pictures because "we have to cooperate with amateurs and to coach them". In the UK, volunteers were treated as a symbiotic business relation and offered free advertisements at *The Bristol Cable* in exchange for distributing print editions by bicycle to key drop-off locations, door-to-door and by hand. *VIEWdigital* in Ireland of-

Clare Cook & Piet Bakker

Table 3. *Taxonomy of business ecosystemic relationships*

Relationship	Revenue classification	Example
Volunteers	Non-monetary exchange or subsidised services	Rewarding delivery services, free use of office space, using freelance photographers for free to have their work linked and social media presences promoted, employment support in the form of salary or personal subsidies in exchange for opportunities for people to return to work
Memberships and donations	Payment for additional services, financial pledges of support, monetary donations from a wide community base around a specific project or commission	Cooperative business structure, readers club, donations
Community events	Ticket sales, entry fee, sponsorship, spin-out services or by reaching new audiences	Pop-up workshops, party events, conferences
Other businesses or government bodies	Revenues or cost-saving benefits, non-monetary exchange of time and skills, licence revenue model	Project collaborations, exchange of content ideas and expertise building with media know-how, acting as a front end to high-street retailers, website collaborations with local civic or tourism organisations, non-journalism projects with civic value
Other publishers	Distribution deals, syndication, resource sharing	Exposure through parent, sister or incumbent local print publications, editorial partnerships, content sharing, data sharing, shared sales management, non-exclusive court reporting deals with public service broadcaster, advertising partnerships with regional publishers
Advertisers	Advertising deals, advertorial, native advertising, sponsored articles, an event feature, home page takeovers, classified or listings	Discounts for repeat advertising business, incentives for long-term advertising contracts, advertorial talk show of local businesses, sponsored podcasts, classified and directory models, offering commissions to people in other organisations from lead generation
Sales and marketing	Commission-based sales, profit share on revenue generated from advertising and sales, subcontracted sales, sales networks	Part-time sales also doing their own client network, commission-based advertising salesperson, paid sales staff within the team, subcontracting to independent commercial agents, pooled resources to appoint a joint sales and marketing person with other hyperlocal services, pooled advertising inventory

fered non-paid placements with educational bodies. For some, informal non-monetary exchange was in the form of services while for others it was an exchange of office space.

Memberships and donations

Membership models offered publishers the opportunity to convert community vested interest into revenues as a pledge of support. *The Bristol Cable* ran a cooperative, with members jointly making decisions. The average donation was €3.4 per month. With more than 400 members, they generated around €1,000 a month. In France, all cases except *Rue89 Strasbourg* used membership or donations. Subscribers to *Mars Actu* could invest funds in the "entreprise solidaire de presse", a French tax incentive. *Angers Mag* had a business club with membership and donations. Memberships only generated marginal revenues. Membership rewards included free printed publications, invitations to annual seminars, commenting on articles' pre-moderation and participating in organised debates.

Crowdfunding from a wide community base around a specific project or commission generated between €1,000 and €41,000 in our sample. *Rue89 Strasbourg* created Strasbourg Connect, a project to integrate social functions into the website. The Swedish and Dutch cases were an exception. *Sydnärkenytt* had not used crowdfunding and, despite an appeal for readers to rescue the *321an* by giving a monthly small donation, only around eight readers had engaged. Third-party sites such as PayPal, Flattr and J'aime L'info also allowed readers to give donations but these generated little revenue.

Community events

While time-consuming and complex, events offered hyperlocals community- and brand-building opportunities and the social aspect of getting people together: for example through food festivals, discussion forums and community training. They generated revenues either from ticket sales, sponsorship, spin-out services or by reaching new audiences. In the Netherlands, *Den Haag Direct* ran events for companies with the average cost to the company for one workshop being €10,000. They also organised smaller pop-up workshops for €150. *Alphens* sold tickets for third-party events such as a Restaurant Week. Revenues were approximately €15,000 per year. *e52* organised a monthly "light breakfast" and a biannual start-up event generating sponsorship and entry fees at around €1,500 per event. The Swedish cases did not host events.

Other businesses or government bodies

Hyperlocals found close relationships with other publications and local businesses operating in the same local system, open to sharing skills and resources. These relationships opened new revenue or cost-saving benefits to the hyperlocals. This was particularly evident in the UK. At its simplest, skilled professionals such as accountants donated time for free as a public good. In others, local businesses or government bodies developed a symbiotic relationship. For example, *The City Talking*'s parent company, Hebe Works, developed Leeds Data Mill in partnership with Leeds City Council with a potential licence revenue model to form a hub for an open data culture in the city. Users could create data visualisations built from council data. A further approach was affiliate marketing.

Other publishers

Within the ecosystem, hyperlocals shared resources "to take the pressure off". For example, *e52* produced a monthly newspaper for their 150 subscribers, also distributed by the local tourism board, boosting advertiser appeal. *Mars Actu*, *Angers Mag*, *321an* and *Ditiswijk* occasionally syndicated to local, national press, TV channels or other organisations for a fee. Editorial partnerships demonstrated a willingness to team up for distribution opportunities, such as between *Rue89 Lyon* and a free weekly cultural magazine. In the UK, developers from a number of hyperlocals shared data and co-evolved to manage sales and content between sites, mirroring the same advertising rate card. Leeds-based *The City Talking* partnered with regional publisher Johnston Press in a mutual arrangement combining reach, content and resources. *The City Talking* was distributed inside Johnston Press title the *Yorkshire Evening Post* once a month, allowing them to reach a "slightly younger and a slightly hipper audience". The advertising inventory was sold by Johnston Press, who managed most of the advertising sales and relationships, and shared advertising revenue back to *The City Talking*.

In the local media ecosystem, some entities profited more than others from relations: some were dominant, others were weak. This was particularly the case where there was an imbalance in reputation and a skewed influence on web traffic with dominant public service broadcasters. While hyperlocal *Blog Preston* said there was a "conflict" and "mixed message" regarding external linking, in Shetland, the *Shetland News* had a good working relationship with the British Broadcasting Corporation (BBC). They were paid for reporting custody appearances and criminal cases in a "very generous non-exclusive deal with the BBC meaning we can also sell court copy on to other UK mainland-based newspapers and use the copy on our own website".

Advertisers

Loyalty was an important factor in creating and capturing advertising revenue. The main advertisers were local authorities, public institutions, large retailers, cultural organisations, real estate, chamber of commerce and banks. Reinforcing findings by Nygren and colleagues (2017: 43), "offering a new channel for local advertisers is also an important purpose of the hyperlocal". In the Netherlands, half of the hyperlocals offered incentives for long-term contracts. In France, emphasis was on direct advertising of more than six months to boost repeat business. Six out of 13 of the UK services offered discounts for repeat or long-term advertising contracts with businesses. However, *Sydnärkenytt* cite resistance from advertisers: "We discovered that local tradesmen were sceptical towards online advertising."

Taken together, crucial in the approach of native advertising was the focus on relations (support, encouragement, facilities, audience behaviour) that were more complex in digital contexts. Native advertising was most popular in the Netherlands (six out of 11 services) and the UK (six out of 13). Many hyperlocals leveraged close relationships with advertisers to carve out new formats, with associated revenues. *321an* developed a podcast, recorded and edited on request of local entrepreneurs. *A Little Bit of Stone* sold the upper tier of their inventory as a dual package to include a display advert with a sponsored article, but this was time-consuming. *VIEWdigital* was "trying to monetise

on partnerships mostly through the themed magazines", for example writing a piece on food poverty sponsored by the Food Standards Agency.

Making classified advertising or listings work as a revenue source relied heavily on working closely with businesses in proximity with much variance in pricing. The Dutch service *Ditiswijk* and the UK's *Visit Horsham* developed classified and directory advertising models teamed with social media for a one-stop shop for local businesses. The French *Angers Mag* tried classified advertising but found it too difficult to compete against market leaders.

Sales and marketing

There was no homogeneous solution to business staffing. Direct advertising sales came from a mixture of cold calls, inbound enquiries and editorial leads. There was a mutuality between editorial and potential advertising revenues, such as returning to a company that had been featured in editorial or asking new businesses featured in stories to consider advertising. Hyperlocals talked of "nurturing one-to-one relationships" with larger advertisers taking several months. Advertising networks provided a single point of contact for multiple website sales by aggregating all advertising inventories. However, there was imbalanced remuneration. *The Bristol Cable* used the advertising network Ethical Media Sales & Marketing at a 70:30 revenue share to sell across a number of local and national bundles. In the Netherlands, the network ToLocal offered national advertisers a network through local websites with automatic sale of display, video, mobile and native advertising, taking 40 per cent of the revenues. In France, *Terri(s)toires* said the local advertising market was "eaten by the biggest local media with their internal advertising networks".

Conclusions

Knowledge of hyperlocal revenue models is nascent and rarely the primary focus of academic studies. However, there is an ongoing trend of community and hyperlocal media constituting a growing cohort of niche journalism we know little about. Our study addressed this through a cross-country detailed examination of hyperlocal business models. The results from our study showed European hyperlocals to have little homogeneity in the production process and much variance in business strategies and objectives. There was also little consistency in terms of goals: some wanted to diversify their operations and adapt while others wanted to scale. It was a "messy" ecosystem (Moore, 2014: 27) where hyperlocals take on varying forms and definitions of success and scale (Radcliffe, 2012). This echoes digital advancements of local media sectors in the US (Holcomb, 2018).

The study found 18 hyperlocals earned under €35,000. Almost every model was built on a small professional staff and a rather large number of volunteers. Hyperlocals have diversified their revenue models: 14 cases had five or more revenue streams. The most common model was to have three revenue streams. Only one case relied on one revenue stream. The dominant revenue was display (30) and native advertising (16). In a fragmented media landscape, there were varied approaches to revenues across the five countries. Revenue was marginal in most cases, particularly compared to incumbents.

We present viable, sustainable and resilience as a conceptual framework to understand hyperlocal business models in this heterogeneous context. It offers a route map by which conceptual confusion can be navigated. Eight services said they were resilient, yet even with low income a service can be sustainable or resilient. However, there were proportionally more sites with higher revenues describing themselves as sustainable or resilient. Viable sites are likely to generate €35,000 or less and be one-man operations working with limited resources; sustainable sites are more likely to have annual incomes of €35,000 or more with a mixed team operation of paid staff and volunteers; resilient sites can have varied incomes but are more likely to have annual incomes above €35,000 and often more structured resourcing allocation. While the taxonomy classifications were self-reported in this study, they could be more rigorously applied by researchers as empirical classifications moving forward. Despite the definitions, interviewees found it hard to pinpoint their model. In order to close down interpretation, more clarity is needed on characteristics at each stage. In particular, more knowledge is needed to understand how businesses move from sustainability to resilience where the distinction is currently less clear.

The asymmetrical revenue diversification of hyperlocals is explained through business ecosystems. Counting the number of revenue streams against the conceptual framework does not go far enough in explaining sustainability: more revenue types does not correlate to sustainability and resilience alone. Each hyperlocal carved out revenues in and of the proximal relationships that exist around it based on its needs. The sector offers many characteristics of an ecosystem composition: a dynamic system of interdependencies between people and relationships cooperating and competing in the proximal setting. Our findings suggest hyperlocal media are nurturing a set of formal and informal relations with a wide range of actors and stakeholders in the community in order to develop diversified revenues and survive. Under niche theory (Dimmick, 2003), sites extract resources from their proximal market and adapt to their local conditions.

The results from our study resulted in a taxonomy of hyperlocal business ecosystemic relationships relating in some way to revenue sustainability: volunteers, memberships and donations, community events, other businesses or government bodies, other publishers, advertisers, sales and marketing staff. These do not represent an exhaustive list. On the contrary, this exploratory study suggests the need for a comprehensive catalogue of relationships co-evolving in and around hyperlocals. However, analysis showed a broad correlation between those with more relationships and being more sustainable or resilient, or earning more than €35,000 a year. Therefore, we can say that a business ecosystemic approach can help sustain hyperlocal journalism. While the results should be treated with caution, they signal that those non-legacy digital-first hyperlocals that have leveraged relationships to develop their business models forward are more likely to be sustainable or resilient.

Responding to the call by Picard and Lowe (2016: 62) to "clarify underlying factors that influence the dynamics of complex change", we set out to highlight how relationships within the ecosystem are developing as part of the lived economic experiences of hyperlocals in order to probe the business sustainability question more deeply. The revenue model in particular requires interaction and permanent adjustment between journalists and relations (advertisers, volunteers, local businesses) to be sustainable. The development of the hyperlocal niche refers to not only content, but also a bespoke

offering in terms of what works for income generation. We find that new patterns of revenue income are emerging from the symbiotic relationships. Non-legacy digital-first local media are increasingly leveraging the relationships around them to develop their revenue models. Yet they can also be exploited. As a result, the diversity and constantly changing nature of hyperlocal economic relations would make it almost impossible to paint the picture of a typical hyperlocal business model.

According to DeRienzo (2015), the hyperlocal sector is "a diverse and eclectic mix of small, independent local journalism start-ups". This heterogeneity drives changing relationships of cooperation, co-evolution and competition between players, allowing for uncertainty and non-linearity. Rather than trying to dominate markets and take control, in the new ecosystem-based economy, companies thrive "by working collaboratively" (Jarvis, 2009). In turn, that means mapping, partnering and incubation opportunities to "make your competitors your collaborators" (Schaffer, 2011).

Against this backdrop, further research is needed to better understand the nature of hyperlocal business ecosystems. Who gains what from whom and to what end? For example, a focus on hyperlocal exploitation by other publications in the supply chain would be valuable. The findings open new questions to develop a more robust set of explanatory empirical criteria, and correlations between sustainability and resilience, to develop business ecosystems theory as applied to journalism. One approach would be a comparative approach to the economic relations by hyperlocal media compared to other regional or national entities both contemporaneously and historically. The study also raises new ethical dilemmas that have emerged from proximal partnerships for remuneration.

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Appendix

Hyperlocals in the study

Country	Site	Website URL
UK	Bitternepark.info	http://bitternepark.info/
	Visit Horsham	https://www.visithorsham.co.uk/
	Charlton Champion	http://charltonchampion.co.uk/
	Shetland News	http://www.shetnews.co.uk/
	The Bristol Cable	http://thebristolcable.org/
	OnTheWight	http://onthewight.com/
	VIEWdigital	http://viewdigital.org/
	Blog Preston	http://blogpreston.co.uk/
	A Little Bit of Stone	http://alittlebitofstone.com/
	Deeside.com	http://www.deeside.com/
	The City Talking/Hebe Works	http://www.thecitytalking.com/
	The Ambler	http://www.theambler.co.uk
	The Lincolnite	http://thelincolnite.co.uk/
France	Marsactu	https://marsactu.fr/
	Rue89 Lyon	http://www.rue89lyon.fr/
	Rue89 Strasbourg	http://www.rue89strasbourg.com/
	Aqui.fr	http://aqui.fr/
	Angers Mag	http://www.angersmag.info/
	Terri(s)toires	http://www.terristoires.info/
The Netherlands	Ditiswijk	http://www.ditiswijk.nl
	dongen.nieuws	http://dongen.nieuws.nl
	De Utrechtse Internet Courant (DUIC)	http://www.duic.nl
	Vers Beton	https://versbeton.nl
	Prinsenbeeknieuws	http://www.prinsenbeeknieuws.nl
	Den Haag Direct	http://www.denhaagdirect.nl
	e52	https://e52.nl/
	Arnhem Direct	http://www.arnhem-direct.nl/
	Liwwadders	http://www.liwwadders.nl/
	Alphens	http://www.alphens.nl
	It Nijs	http://itnijs.nl/
	Dichtbij	http://dichtbij.nl
Belgium	Brusselnieuws	www.brusselnieuws.be
	De Koep	www.dekoep.be
Sweden	Sydnärkenytt	Sydnarkenytt.se
	321an	321an.se