Gauging the Google gaze: A digital visual analysis of images of a semi-peripheral town

By
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Abstract
This study explores the visual representation of Great Yarmouth, a British coastal town caught between the urban and the rural, as seen through the quasi-monopolistic image search engine Google Images. The research examines levels of pluralistic or biased place representations to consider how rankings employed by Google Images algorithms represent Great Yarmouth's identity. The study adopts a visual culture perspective that recognises the role of images in place making and combines digital methods with an image type analysis to investigate how online representations reflect and create the town's identities. The data shows that Google Images' preference for representing Yarmouth as a sunny seaside town indicates that the search engine prioritises marketable assets above its connections with its hinterland, its diversity of people, and the cultural activities it has to offer. This, the authors state, is a place far away from Tuan's (1979) idea of a place that is given meaning and identity from the perspective of people. Instead, Google Images’ representations of Great Yarmouth are an example of a created form of place making as commodification. The article concludes that the inscribed bias and unbalanced search priority criteria employed by the search engine impact upon the diversity of the semi-peripheral town.

Keywords: place making, Google Images, place representation, image type analysis, visual culture


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Introduction

Towns are caught between the urban and the rural, simultaneously losing shape and identity, while holding together their transitional "semi-peripheral" (Radojevic et al. 2020: 1) condition. As the call for papers for this special issue has claimed, the study of place making and place representation has so far been mainly concerned with the urban and the rural and has paid little attention to small and medium-sized towns. As outlined below, leaving in-between spaces unattended neglects towns as essential interfaces for their rural hinterlands torn between the rural idyll (Little 1999) and the urban norm.

Studies of place representation and mediated spaces are a common theme in communication studies and geography (see e.g. Adams & Jansson 2012, Brantner et al. 2021, Brantner & Rodriguez-Amat 2016, Rodriguez-Amat & Brantner 2016). Given its ubiquity, it is worth investigating how online representations of small and medium-sized towns are manifested and how these reflect and "create" (Skinner 2018) a towns’ identity. In this study – using the visual representation of the British coastal town Great Yarmouth – we apply a visual cultures perspective (Mitchell 1994, Rose 2014, 2016) that recognises the role of images in place making (Rose 2018).

Our case study, the town of Great Yarmouth – a former member of the mediaeval Hanseatic trading alliance, and its rural hinterlands – embodies many complexities. It is a town of contradictions with a rich heritage and a complex present. Almost as close to the Netherlands as it is to London, its rejection of European Union membership – 71.5% of the town’s population voted leave in the Brexit referendum (BBC 2016) – seems to embody the tensions between metropolitan and rural.

This study used the Google Images search platform to explore how the town’s identity is represented visually and how plural or biased these representations are when ranked by the search engine (Rogers 2019) that holds a quasi-monopoly on the search engine market (Mager 2018). The methodological strategy allows for a combination of digital and interpretive (iconographic-iconological image type analysis) methods to analyse the representation of Great Yarmouth on Google Images and contrasts the results with the complex reality and currents that shape the fate of this town today.

Townsin Between: Balancing Capitalist Tensions with the Rural and the Urban

In the two decades that have passed since Jo Little commented on the predictability with which discussions of rural places were framed by the rural idyll (1999: 440), it would appear that, at least outside of academia, little has changed (e.g.
BBC’s Escape to the Country 2022, Dray 2019). The pull of this image of village life on more affluent city-dwellers, embodying values of community, continuity, and a more ‘natural’ way of life, can be seen in the growth of second homes and relocation to rural towns and villages (Ministry of Housing, Communities & Local Government 2020). Yet, as Hamilton (2016: 297) observed, “Rural myths are both real and imagined – a juxtaposition and a blending of the ‘somatic’ and the symbolic.”

The Covid-19 lockdowns of 2020-2021 clearly made both domestic and green spaces highly prized, and working from home made permanent relocation to the rural idyll a reality for those privileged by geographical location and occupation (Sandow & Lundholm 2020). Uncertainty around the rules for overseas travel in the Covid-19 summer of 2021 led those who could afford it to pay inflated prices for domestic travel, exacerbating existing housing shortages in rural areas of the UK popular with tourists and, following Robinson, Martins, Solnet, and Baum (2019), possibly also increasing labour precarity. This pandemic-related trend was also perceived in other countries: in Sweden, Åberg and Tondelli (2021) found greater numbers of city residents relocating to the countryside during the pandemic.

The in-migration to rural areas exists alongside the long-term trend of younger people out-migrating to urban centres (Collantes 2007, Sandow & Lundholm 2020). A recent survey for the Council for the Protection of Rural England (2021) found that, after housing, poor public transport, and poor digital connectivity were commonly cited by young people as reasons for moving to cities. These findings are not specific to the UK, as international studies have found that, in addition to out-migration of working age populations, underemployment and higher poverty and deprivation rates are among the common issues facing rural areas (Wenham 2020: 46).

Generally missing from debates about the rural / urban divide, is the role played by capitalism in constructions of rural and town life. Raymond Williams’ (1973) claim that rural-urban oppositions have long been used as an ideological tool to maintain capitalist power (Kay & Wood 2021: 1), is expanded by Massey’s observation that capitalism is brought into places by human bodies (2004: 8). This can be seen literally in the bodies of migrant labourers, brought in to work in the agricultural sector, and in the movement of people into, and out of, a place.

Looked at from this perspective, the role of nostalgia in perpetuating the concept of the rural idyll through heritage and culture may be well-trodden (Hamilton 2016, Baena & Byker 2015), but its continuing influence may not be as all-pervasive as first appears. The mystification that surrounds this imagined idyll obscures the interconnectedness of town and country and it distracts from
the harms of the capitalist system that shapes and permeates spatial and social inequality (Kay & Wood 2021: 1).

Tensions between the urban and the rural also fit within the debates on complexity and semi-peripheries (Radojevic et al. 2020). Even if that concept has been applied to a larger international scale, the principle of spatial and human fluidity associated with globalised capitalism fits the case of towns. In the globalised economy, towns are essential interfaces for their rural hinterlands, and yet they are also seen as part of the 'left-behind' narrative, implying economic and cultural backwardness and hinterland characteristics (Neel 2018), or have been remodelled as tourist destinations. According to Blagojević (2009, as cited by Radojevic et al. 2002: 2), the semi-periphery is defined by its attempts to both keep up with and resist integration into the urban core while preserving its own cultural identity. This notion of the semi-periphery helps describe and identify phenomena that are analogous to semi-peripheral regions, and highlights the ambivalent positions of small and medium-sized towns. This ambivalence is also echoed in social life and politics: towns have the potential to become sites of resistance against the 'core' status and to resist the reproduction of the structures of international capitalism and inequalities (Neel 2018).

The imperative to move away to meet employment or housing needs, or to conform to “metrocentric” models of success (Wenham 2020: 48) is likely to fracture not only the individuals concerned, but the sense of identity and place in those who remain (Cuervo & Wynn 2014). Furthermore, when semi-peripheral towns use their heritage to attract tourists, the emphasis on the picturesque physical attractiveness of a place replaces the idea of heritage as an expression of the community itself (Bourdin et al. 2019: 25). This view is echoed by Gentry (2013: 514), who notes that in western societies, heritage legislation and conservation focus on safeguarding material remains rather than preserving memories or values.

The competing representations of tourist and local dwellers have been discussed at length (e.g., Haukeland 1984, Dickinson & Robbins 2008) but remain a key aspect to consider. Hence, this paper contributes to a broader research programme that explores these processes of representation of semi-peripheral towns and how they link to identity and place making.

**Place Making Through (Image) Representations**

A sense of place connects people to locations, holds communities together, and forges "spatial coordinates of identity" (Gentry 2013: 514). But place making involves more than just the physical design of a place. The (mental) image and experience of a place are influenced by a combination of real and imagined
elements and historical and mythical events (Lew 2017: 455). The fundamental idea that place and space are socially constructed (Lefebvre 1991, Watkins 2005), activates the urge to think beyond the external representation of place as a symbol of its value.

According to Tuan (1979: 387), the sense of place is best understood from the perspective of the people who have imbued it with meaning. Identities are not static productions (Massey 2004): the complexity of a place incorporates existing, and fluctuating, inhabitants and economic structures that, as Pierce and Martin (2015: 1289) observe, can only be partially and incompletely understood.

Research on space and place has already incorporated such complexity by exploring the multiple dimensions that configure the activity in a space using models that centre around, and are constructed through, social interaction. There, representations of places ought to reflect the multiplicity of networks and interconnections, discourses and competing views to understand places (see Brantner et al. 2021, Brantner & Rodríguez-Amat 2016, Rodríguez-Amat & Brantner 2016). Against this, overly simplistic representations of town and city, or town and country, as city-brands (Falkheimer 2006), or as promotional strategies, do all a disservice and ignore the complexities and nuances that give a place its particular and rich multiple identities. Overlooking particularities and nuances of individual places (for example coastal/inland location and differing levels of wealth), is inadvisable if one wants to convey a sense of place (Wenham 2020).

If individual representations of a place are unique and contingent, they are also (like places themselves) complexly situated in relation to power structures (Adams & Jansson 2012: 307). Mental images and place identity can become trapped in reductive stereotypes, which often are shaped by intentional place making activity through mediated images. Media do not only communicate place identity but also create (Skinner 2018) and produce space (Brantner et al. 2021, Brantner & Rodríguez-Amat 2016). The knowledge that media representations have the power to shape how places are imagined (Nikunen, 2018), also explains the general awareness of the growing importance of media images in cultural, economic, political, and social practices. This is perceivable in the effort to build profitable images of locations by forcing media activity. But these mediated, branded images that are part of marketing strategies targeted to attract businesses, new inhabitants, or tourists, often contradict, or collide with journalistic representations (Falkheimer 2006) and those of local residents or communities. It therefore becomes important to ask which actors succeed in getting their view of a place into the media (see RQ2 below), and how this affects knowledge and perceptions of places derived from media communications, specifically when a place is unfamiliar. Social media activity and hashtags such as #cottagecore
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(Åberg & Tondelli 2021: 45) or #cabinporn, for instance, extend the romanticised promotion of the rural idyll seen in literature and film (Somerville et al. 2015).

In today’s highly visual culture, iconographic representations not only lead us to the question of what images “mean,” but [also] what they do in a network of social relations: Who or what represents what to whom, with what, and where and why?” (Mitchell 1994: 423). In other words, we ask about the images’ contents, producers, production processes, and effects (Rose 2014). The image taker or provider attributes values to the place and contributes to its place making. Indeed, images charge places with meaning and importance from the moment of taking and sharing them (Brantner et al. 2021, Brantner & Rodríguez-Amat 2016). The particular features of the visual as a holder of meaning (as studied by Graber 1996, Messaris & Abraham 2001, Andén-Papadopoulos 2008, among many others) are particularly suitable for conveying spatial representations (Lobinger 2012). Photographic representations point to which landscapes, buildings, squares, streets, and perspectives are deemed significant. In turn, pictures of places influence people’s imaginaries and expectations about them and can guide their experience (Stepchenkova & Zahn 2013). For example, tourism professionals appear to be more aware of this role of images in place making and put more effort into influencing mental images about places through visual storytelling than urban planners and design professionals (Lew 2018).

**Google Images Search Engine**

We used the Google Image search platform to explore the plurality of representations of Great Yarmouth when ranked by the search engine.

Search engines are not neutral environments. They are governed and they govern and shape priorities within the internet algorithmic ecosystem (Mager 2018; Musiani 2013): While their owners’ and engineers’ norms and values are inscribed within them (Mager 2018), users too create their own biases as the algorithms consider their previous usage behaviour and their geographical location (personalisation). Engineers contribute to the reinforcement of biases by feeding the machines with stereotypical and prejudiced content. This also applies to the affordances of the search engine designed for Google Images, and what Pires, Masanet, Tomasena, and Scolari (2022) describe as the functions made possible by the technology and the social structures that take shape in association with them. Affordances are therefore culturally produced and set conditions for the users to decode their expected use according to certain cultural parameters (Shaw 2017). In this sense, the affordances of the Google Images search engine provide a particular pattern of access, priority, and choice that has been previously designed for a purpose. Following this condition, any Google Images search
must be understood as a search for the textual-verbal descriptions of images: the image tags work as a “latent’ (human, historical, cultural)” (Radojevic et al. 2020: 1) form of bias. It is because of their associated semiotic (Cingolani 2021) and political implications that algorithms responsible for filtering searches and making recommendations became one of the most researched topics amongst digital scholars. The way these algorithms present information in the form of ranked lists can reinforce the idea that certain content is more important or deserving of attention than others, as highlighted by Rieder et al. (2018: 52).

Algorithms designed to personalise experience, usually create a potentially problematic, narrowed, list of ranked recommendations. This hierarchical structure leads to cultural homogeneity, as certain actors and viewpoints are consistently featured while others are not. This can impact the public sphere and democratic opinion formation (Schmitt et al. 2018: 784-785) and thus, Google Images’ algorithms imply structural hierarchies of power.

The technical side of the ranking algorithm is kept secret. Companies such as Google monetise the creative products of users. Search engines are “a biasing technology” (Halavais 2013: 249) that - in the case of Google - contribute to information inequality by favouring certain sources, excluding others, naturalising “results that favour the rich and powerful” (Rogers 2019: 109). Artificial boosting of sources can be achieved through search engine optimisation (SEO), an effort not all source providers undertake or master. Sources from powerful and web savvy actors most likely rank among the first search findings:

Those sites receiving the most links [...] are boosted, as if organically, as the results produced by the algorithm are often described. When mention is made of how sources are buried by engines (through a lack of indexing, or by their measurable dearth of authority or influence), one may speak of engines' social effects. (Rogers 2019: 110)

Rogers argues that Google’s PageRank and algorithmic features that have driven the search engine towards personalisation has led to “algorithmic concentration” (Rogers 2019: 112), describing Google as both monolithic and hegemonic. As of December 2021, Google had a market share of 86% of the global desktop search market (Johnson 2022), giving it a quasi-monopoly on the search engine market in Europe (Mager 2018). The importance of the ranking algorithms is underlined by experiments showing that the links clicked on a Google search result are usually restricted to those displayed on the first page of results (Dorn 2020: 11). Personalization of search results, where findings and ranking are influenced by geographical location and previous usage behaviours, is critically
discussed (Rogers 2019), but can be circumvented by using ‘clean’ browsers (see methodology section).

Like standard searches, a Google Images search defines a hierarchy of results, ranking, prioritising, and filtering contents (notably Instagram blocks Google Image search). Unlike the standard text search results that offer a maximum of 10 results per page and force users to click through additional pages for more results (which, as studies confirm (Dorn 2020), they rarely do), Google Image search displays thumbnails of filtered images on one page, which can then be scrolled through. Although it may well be that users only look at (or click on) the images that appear in the first screen frame, we decided to include the first 300 hits in this project, as it is comparatively easy and quick to scroll through at least the first few lines of images in a single image search. Images are not only ascribed a higher credibility (Messaris & Abraham 2001) but are perceived in fractions of seconds and remembered better than textual information (Graber 1996). Thus, images not only influence the viewers’ perception of place, but multiple images can be viewed and processed in a short period of time.

Case Study – Great Yarmouth

Yarmouth, as it is known locally, is the administrative centre of the Borough of Great Yarmouth in Norfolk with 41,013 residents in the 2011 census. Its wider borough has a population of 99,370 (Great Yarmouth Borough Council 2019) and embodies many of the problems afflicting small and medium-sized towns under late-capitalism discussed above: poor housing, low levels of education, low-skilled jobs, and poor health (Office for National Statistics 2020). In the UK, people in such areas have been designated as "socially-excluded" (DCMS 1999) and, more recently, “left-behind” (Butler 2021).

Coastal towns, like Yarmouth, highlight that the particularities of place are an essential consideration of place making (Wenham 2020). Yarmouth was once an important fishing and trading centre as well as a seaside resort, but today, the port depends on the North Sea oil, gas, and offshore wind industries (World Port Source n.d.) and its once 1,000 strong fishing fleet lost its last boat in 2008 (Jones 2008).

As a seaside tourist town, Yarmouth could not compete with the guaranteed sunshine promised by package holidays in Spain (Rickey & Houghton 2009). In similar towns around the UK, former hotels became Houses of Multiple Occupancy (HMO) which, from the 1970s onwards saw metropolitan local authorities and organisations (probation, youth services) rehousing homeless and disadvantaged groups in former hotels (Smith 2012: 470).
Despite the above mentioned issues, Yarmouth, with its funfairs and arcades, remains the most popular tourist destination for visitors to Norfolk (Herschel-Shorland & Edwards 2019: 18). Amongst Norfolk locals, there is an understood relationship between social class and choice of location, supported by research carried out on behalf of Visit Norfolk confirming local perceptions that North Norfolk attracts more middle-class people while working-class people are more likely to visit Yarmouth (Herschel-Shorland & Edwards 2019).

With lower property prices than nearby Norwich, and its coastal location, Yarmouth has recently become a destination for cultural workers with ambitions for creating programmes and organisations. These mix traditional approaches to regeneration through culture, e.g. Arts Council England’s (ACE) Creative People and Places projects and the bid to become UK City of Culture 2025 (ACE n.d.; Great Yarmouth Borough Council 2021a) alongside projects generated by in-migrants. The Yare Gallery, housed in a Grade II listed building on the South Quay, is led by the Great Yarmouth Preservation Trust (Yare Gallery 2021) and the former Debenhams department store now houses PrimeYarc, with gallery, public spaces, and artist studios (Original Projects n.d.).

Yarmouth, in 2022, reveals the shifting identity that develops from place making as a relational activity. Its hinterland of marshes, used for summer grazing, merges into fertile farmlands where farmers took advantage of opportunities to employ migrant workers after the Schengen Agreement (Office for National Statistics 2017). While it is clear from Yarmouth’s 2019 profile (Herschel-Shorland & Edwards 2019) that social and economic problems remain, the town’s settled population of workers from Portugal, the Baltic states and Poland (Norton 2019) means that this is not such a monoculture as the ethnically white 96.9% statistics imply (Herschel-Shorland & Edwards 2019).

**Great Yarmouth according to Google Images - Research Questions**

In order to analyse the overarching question about Great Yarmouth’s identity according to Google Images, we have formulated the following research questions:

RQ1: What types of images emerge, and what do they represent?

RQ2: From which actors’ websites (source type) do the listed images originate?

RQ3: What aspects of the social and cultural complexity of Great Yarmouth are prioritised in the Google Images search result?

With these questions we consider the implications of such algorithmic driven representations against the actual complexity of Great Yarmouth.
Methodology

The data was collected by scraping the outputs of the Google query "Great Yarmouth UK" on a clean Firefox browser (without cookies and without user signing in to avoid the effects of personalization on the search results). We tested Googling with and without clean browsers and emptied caches (see Rose 2016; Rogers 2019), and found similar images in a similar order when searching the same keywords from Sweden and from the UK. The script scrolled down to request the first 300 images and automatically screenshots and store them. Their URLs were collected in a dataframe together with the image caption. The automated process identified each image both in the dataframe and as a stored image from the screenshot with the same label. Since the script does not work with the Google Images search engine API, it is not infallible: the screenshot process and automated refreshment of the website caused duplication of some images and jumps in screenshot counting due to the delay in loading the Google site, resulting in a sample of 291 images.

The data cleaning process involved creating a spreadsheet containing the metadata used to manually code the categories described below. The images were then stored in a shared folder on a secure server from where the following image type analysis was done.

To answer the first two research questions, we conducted an image type analysis with the final sample of 291 images combining qualitative and quantitative elements of visual content analysis. This procedure allows for the inclusion of a larger number of images to be examined and interpreted qualitatively (Brantner et al. 2020, Pentzold et al. 2019). The analysis does not focus on individual images but on structural (compositional, thematic) patterns in the material. With this approach, a larger number of images can be analysed without losing sight of the visual specificities of each image type (Grittmann & Ammann 2011). An image type covers all images that have similar meaning or content. The image types were inductively formed from the material using a picture card sorting method (Fincher & Tenenberg 2005) adapted for our purposes.

After moving them into a shared folder, the images were all displayed on a large screen (similar to the Google Image search display). They were then grouped, using an iterative process, according to their visual similarities, placed in separate folders by group, and again displayed on the screen. This procedure allowed us to constantly check the created types for consistency and internal homogeneity and identify what distinguished them from other image types. We ran several sorting loops until the final structure of 16 mutually exclusive image types was achieved. For some image types, subtypes were generated based on visual features, motives and information from coding the source types. Twelve images that could not be assigned to any of the image types were classified as 'others' and further sorted into the subcategories of 'tourist' or 'non-tourist,' based on their visual
content. Each of these images contains its own unique motifs and meanings and therefore could not be assigned to an existing image type, but we assigned it to the ‘tourist’ subcategory if it had a clear tourist reference. Another three images in the ‘others’ category were classified as ‘artefacts’ as they were unrelated to Great Yarmouth. These were images in news media articles, displayed in the search result by the Google Images search algorithm, but were not published within articles about Great Yarmouth. Instead, these acted as cover images in article previews positioned below the stories.

The polysemy of images themselves and of the image types means that some images are difficult to classify into a single type, either because their motifs and aesthetics are less obvious, or they are interpreted differently by the researchers (Pentzold et al. 2019). In the present study, there were only a few such ambiguous cases. When these occurred, the three researchers discussed the specifics together until agreement was reached.

For the description and interpretation of the image types, we used images typical for the respective types and subjected them to a combined iconographic-iconological analysis (Brantner et al. 2020). The method suggested by Grittmann and Ammann (2011) for image type interpretation links the analysis of quantifiable structures and patterns to a detailed analysis of the manifest and latent meaning of images. The aim is to find the dominant idea of the event or topic that is visualised in an image type and over the whole material, that is, the intrinsic or symbolic meanings, the perceptions and ideologies, that are underlying the image motifs and connected issues and events.

In addition, to answer RQ 2, we analysed the source type for each image. That is, we classified the websites according to which source type their domains belong to. We started the process with several predefined categories: news media, tourism organisations, holiday accommodation booking sites, travel guides, social media, which were inductively expanded based on the material. The final categorisation is shown in Table 2.

To allow the analysis of the amount of user-generated content available in the material, for images found on social media, we discerned whether they were provided by destination marketing organisations, accommodation providers or other tourism-related businesses, or if they were user-generated content (UGC) by tourists or locals. However, some social media platforms (e.g. Instagram) generally block Google Images from indexing images. Websites that could not be assigned to any of the source types were categorised according to whether they were tourism-related (e.g. marketing a specific venue) or not (e.g. local businesses, care homes) and classified as either ‘others (tourism specific)’ or ‘others (non-tourism specific).’
<table>
<thead>
<tr>
<th>Image types</th>
<th>% of total</th>
<th>Image sub-types</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maps</td>
<td>5.2</td>
<td>Empty beaches</td>
<td>9.3</td>
</tr>
<tr>
<td>Aerial view (of a coastal town)</td>
<td>5.2</td>
<td>Beach life</td>
<td>8.3</td>
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<tr>
<td>Yar - Mouth</td>
<td>1.7</td>
<td>Fun fair</td>
<td>7.2</td>
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<tr>
<td>Empty (coastal) landscape</td>
<td>3.1</td>
<td>Mini golf</td>
<td>1.7</td>
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<tr>
<td>Yarmouth beach as tourist space</td>
<td>17.6</td>
<td>Miniature village</td>
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<td>Playground</td>
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<tr>
<td>Fun fair &amp; day leisure</td>
<td>10.7</td>
<td>Historic views</td>
<td>4.5</td>
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<td>Historical events</td>
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<td>Fair night life</td>
<td>2.4</td>
<td>Hotels and cottages</td>
<td>7.9</td>
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<td>Other recreation (horserace, cycling,</td>
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<td>Rooms</td>
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<td>boats)</td>
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<td>Shopping</td>
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<td>Quay</td>
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<td>The historical Great Yarmouth</td>
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<td>Tourism facilities (buildings and</td>
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<td>rooms)</td>
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<td>Other buildings (residential space)</td>
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<td>Real estate</td>
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<td>Rooms (residential space)</td>
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<td>Artefacts</td>
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Table 1. Image types (N = 291)
Results and Interpretation

Table 1 describes the percentages of images of each type and subtype identified in the data, followed by a brief description - with examples - of the different types. Following this, Table 2 shows the relation of providers of the pictures and their distribution. Lastly, before the final discussion, there is an interpretive exploration of the implications of these types and image providers (sources) in relation to the particular representation of Great Yarmouth provided by Google Images.

Analysis of Image Types (RQ1)

Maps
The Google Image search results page covered some images of maps. These locate Great Yarmouth within the region and UK.

Aerial view (of a coastal town)

Aerial-views or high angle extreme long shots visualise Yarmouth’s location by the sea. While we find some images where the place mainly appears as a tourist coastal town focusing on tourist leisure attractions or the beach (middle), we also find images that additionally show the place as a town, which makes it appear less ‘touristy’ (left, and in particular, right).
Yar - Mouth

Aerial-views of the port, where the River Yare meets the sea, are also featured.

Empty (coastal) landscape

Eye-level long shots representing an empty, coastal landscape emphasising nature are typical for this image type. These images mainly featured on tourism-related websites, showing (almost) no indication of human presence and represent a romantic gaze promising solitude.

Beaches as tourist spaces
This image type consists of two subtypes. The observation that Great Yarmouth beach is consistently portrayed as a sunny tourist space in both types is underlined by the fact that all but one of the images were provided by tourism-related websites or stock image providers.
a) **Empty beaches**

Instead of depicting an empty romanticised coastal landscape devoid of human presence, the photographs in the first image type, ‘empty beaches,’ represent the tourist space of an inviting beach. The human presence is indicated by artefacts such as beach huts (middle), seating areas, information boards (right) or the Britannia pier (left). All but one of these were published on a tourism-related website or by a stock image provider.

b) **Beach life**

These show the same space, but here the beach is activated by people enjoying ‘life on the beach’ at an always sunny town beach. The pictures resemble the ‘empty beaches’ type in terms of scale and angle but highlight how the spaces function as a holiday resort. The images in this category differ in the number of people depicted, indicating different experiences, from rather quiet beach days (left) to sometimes busier ones, but they show that both are possible and that beaches in Great Yarmouth are seldom overcrowded.
Fun fair & day leisure

This image type contains images representing the several seaside tourist attractions in Great Yarmouth such as the fun fair, mini-golf course, and Merrivale model village.

Fun fair nightlife

These image types show nightlife at the funfair area. All have a similar appearance, emphasising the lights on the seafront. In addition, the images use the same colour palette, patterns, and models.

Other recreation

Six pictures that are different visually and in terms of content, are grouped together because they depict other leisure activities (cycling through beautiful forests, boat trips along an idyllic river, visiting horse races). All were found on tourism-related websites. This is the only image type that contains visualisations of the rural hinterland (middle, right), however, on all three images it is visualised as a tourist space.
Postcards, Posters, post-its

These images are either invitations to come to, or greetings from, the tourist destination (observable on the image), consisting of current or historic postcards and advertising posters. The images in the middle and the right show continuity in the idea that holidays are affordable for everyone.

Historical Great Yarmouth

Historic photographs and paintings, mainly showing the market square (left, middle); the image on the right shows the town hall and quay. In the images, the focus is on town life in the area depicted rather than tourism or historicity.

Shopping

'Shopping' mainly shows the same street - Regent Road - full of people who could be either tourists or locals. It is not possible to determine individual shops. Only
two of the photos are user-generated content from tourists on social media, the rest originate from news media and stock image providers.

**Quay**

Images of the quay emphasise the closeness to the water and usually feature the historic town hall. The presence of ships (centre) implies some harbour activity.

**Culture/heritage architecture**

This image type collects photographs of the cultural and architectural heritage of Great Yarmouth, such as the Minster, the town hall, or the Empire theatre. The Empire (right photograph) and Windmill (left photograph) buildings (built around 1900) are former cultural (cinema, theatre) venues turned into a restaurant and amusement arcade/mini-golf course respectively. However, even though on some images visible paraphernalia indicate that these places and historical buildings have been turned into tourist and entertainment resources, the historicity of the buildings is central to the representations (unlike the “funfair” pictures in which they can sometimes be seen or glimpsed in the margins).
Included is a computer-generated projection of the Great Yarmouth Winter Gardens revitalisation project. Built in the late 19th century of glass and steel, the restoration of the beachfront building is part of Great Yarmouth Borough Council’s (2021b) “our town deal vision”. Even though the building (listed by the Victorian Society as among the ten most endangered buildings of the Victorian and Edwardian eras) is also a tourist attraction, the Council stresses the importance of its revitalisation for local residents, communities, and economies, converting it into a heritage, arts and education hub. However, this is the only image found in the data that envisions the future town, visualising the process of place making as “place-enhancing” (Gymóthy 2020).

Other buildings and other rooms (residential spaces)
These two image types include images of houses and flats for sale or rent on the real estate market, shown either from the outside or inside, buildings and interiors of local businesses and street views of the town.

Tourism facilities
This category features photographs depicting Great Yarmouth’s hotels, holiday cottages, and rooms in both. The hotels shown are mostly built in the turn of the century/Victorian style, exceptions being three pictures of the functionalist Premier Inn hotel chain. Holiday rentals range from a wooden chalet to terraced houses.

Analysis of the Image Sources (RQ2)
The images originate from a wide variety of websites. The 291 Google Image search images in the final dataset came from 144 different domains, most of which were based in the United Kingdom. Alamy, a stock image agency, and Visit Great Yarmouth, the town’s official destination marketing site, achieved the most image hits with eight each. The English Wikipedia was third with seven images, six of which appeared in the same entry on Great Yarmouth. It is not surprising that Wikipedia ranked so high in the search results due to Google’s and Wikipedia’s symbiotic relationship (for a discussion see Vaidhyanathan 2011). The first image displayed by the Google Image search algorithm comes from Wikipedia, but the remaining images from Wikipedia are scattered relatively evenly throughout the image repertoire.

Dreamstime, another stock image provider, also had seven hits. Another 59 domains had between six (the personal travel blog handluggageonly.co.uk, the public broadcaster BBC, iStock - another stock image provider owned by Getty images -, the tourism social media platform Tripadvisor, and the official regional
tourism website Visit Norfolk) and two images in the dataset, for the rest we found only one image each.

As described above, we classified the different domains into source types. Table 2 shows them separated by whether they are related to tourism or not. Results show that of 144 images, almost half came from tourism, travel sites, and similar contexts. Over 10% of all images came from online booking sites (international, national, and specialised ones). Local and regional destination marketing organisations also succeed in placing their images among the Google search results. Together, tourism marketing and tourism industry websites account for over a third of all images listed by Google Images (35.6%).

User generated travel content accounted for 8%. While we cannot claim that this number is comparably low, we can see that the images generated by the Google Images Search about Great Yarmouth are not dominated by a spontaneous tourist gaze, but by a strategically defined one. Moreover, we found no significant differences between the image types used by tourists and those used by the tourism sector. Tourist images together with destination, accommodation, tour operation, attraction marketing, and booking site images as well as image stock photographs – which mainly depict the town as a tourist destination – dominate the image repertoire.

Interestingly, national news media (e.g. BBC, The Guardian) seldom appear in the image search result (6.2%), and regional or local news media are almost unseen by the Google Image search (1.7%).

<table>
<thead>
<tr>
<th>Source type</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism-related source (n = 144, 49.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism marketing and tourism industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodation booking sites</td>
<td>30</td>
<td>10.7</td>
</tr>
<tr>
<td>Local/regional tourism websites (official)</td>
<td>15</td>
<td>5.2</td>
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<tr>
<td>Local/regional tourism websites (non-official)</td>
<td>6</td>
<td>2.1</td>
</tr>
<tr>
<td>Local hotel/resort website</td>
<td>9</td>
<td>3.1</td>
</tr>
<tr>
<td>Local leisure attractions</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td>Tourism tours provider</td>
<td>6</td>
<td>2.1</td>
</tr>
<tr>
<td>Facebook page of vacation home rental/hotel</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Tripadvisor tourist company GC</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Twitter handle of GY DMO</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Online travel guide</td>
<td>25</td>
<td>8.6</td>
</tr>
<tr>
<td>User generated content</td>
<td></td>
<td></td>
</tr>
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</table>
Interpretation of Google Images’ Representation of Great Yarmouth (RQ3)

The 291 images encapsulated in 16 types share broad commonalities. The constant reference to the seaside and the articulation of a particular kind of touristic life fits well with the abundant aerial views, composed of thirds, striking the viewer with bands of town/sand/sea (see Table 1 and the image examples). The ‘empty beaches’ category emphasises this aspect: the angle of the photo helps to conjure up the texture of the sandy beach and, while there are no people present, the symbols of the seaside point to this being a beach where a visitor can hire a deck-chair or buy an ice-cream. This approach, centred on the sandy beach as the place to be, dominates in four categories: ‘aerial views’, ‘empty beaches’, ‘beach life’, and

<table>
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<tr>
<th>Source Type</th>
<th>N</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripadvisor UGC</td>
<td>5</td>
<td>1.7</td>
</tr>
<tr>
<td>YouTube personal travel channel</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Personal travel blog</td>
<td>15</td>
<td>5.2</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great Yarmouth Port Authority</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Mapping</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Others (tourism specific)</td>
<td>12</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Stock image provider</strong></td>
<td><strong>36</strong></td>
<td><strong>12.4</strong></td>
</tr>
<tr>
<td>Non-tourism related source (n = 111, 38.1%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real estate</td>
<td>16</td>
<td>5.5</td>
</tr>
<tr>
<td>Great Yarmouth Borough Council</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Other authorities</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Encyclopaedia Britannica</td>
<td>2</td>
<td>0.7</td>
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<tr>
<td>Wikipedia</td>
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<td>2.8</td>
</tr>
<tr>
<td>Image sharing platform</td>
<td>6</td>
<td>2.1</td>
</tr>
<tr>
<td>City rating blog (for locals)</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Personal blog (nontravel)</td>
<td>6</td>
<td>2.1</td>
</tr>
<tr>
<td>cultural/architectural history</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Art/Art project</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>eBay</td>
<td>5</td>
<td>1.7</td>
</tr>
<tr>
<td>Online shop</td>
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<td>Local news media</td>
<td>5</td>
<td>1.7</td>
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<tr>
<td>National News Media</td>
<td>18</td>
<td>6.2</td>
</tr>
<tr>
<td>Others (non-tourism specific)</td>
<td>17</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Table 2. Source type (N = 291)
'postcards/posters', and recalls the most fundamental touristic appeal of golden sand, and space for tranquillity on an uncrowded shore. The presentation of the seaside and accompanying activities (e.g. 'life on the beach'), call to a nostalgia for a remembered childhood - playing to the notion of the holiday as an escape from reality. The proximity of town to beach becomes the central selling proposition and de-constructs the small, diverse, and complex town into a de-personalised tourist destination. The ubiquity of the sunny day becomes the concluding statement. Only three pictures show cloudy or rainy views although climate data shows that in Great Yarmouth it rains 119 days per year (Climate and Weather n.d.)

It is perhaps in the activities categories that Google Images plants Great Yarmouth within a social hierarchy. As mentioned by Herschel-Shorland & Edwards (2019), the town is a popular destination for working-class tourists, and this is demonstrated by the emphasis on activities such as amusement arcades and the funfair, rather than other activities and cultural opportunities, e.g. galleries, museums, or heritage and historical walks.

The spread of image types and of image sources shows a very particular picture of Great Yarmouth. The insistence on tourism, on beach and sand, and on rentable accommodation, articulates an understanding of a place designed for visiting rather than living. It is not a place to work or study, but to be enjoyed by the disconnected Sunday visitor, or annual holidaymaker. This is underlined by the image types that depict buildings, where hotels, bed and breakfasts, and holiday rentals dominate. What we see in this projection of a sunny town by the sea is a Google Images search engine prioritising Yarmouth’s chief marketable asset: a fun day at the beach and its attractions - rather than the diversity of activities the town has to offer. Which is why it never rains in Great Yarmouth - according to Google Images.

Discussion: The Absent in the Pictures

The critical dimension of the analysis of the images provided by Google Images search engine raises the question of what is not represented. The dominant representation of Yarmouth as a tourist destination, masks and distracts from other aspects that define Great Yarmouth in its incomplete richness. Radojevic et al. (2020) have already expressed their concerns about Google Images as a valid technology for depicting urban spaces. The contrast between the multiple factors that define Great Yarmouth against the repetitive image patterns and providers supports these concerns. It is not possible to determine whether the causes of these absences are the opacity of algorithmic recommendations, or the limitations of the platform itself (e.g. that it is blocked by Instagram). However, it is possible to explore the implications of such limited and partial representations of the town.
by exploring what is absent in the image repertoire used as a sample. We have organised these absences along three lines: the absence of the hinterland, culture, and Yarmouth’s people.

The Absence of the Hinterland
As a semi-peripheral town, Yarmouth’s connections with its surrounding landscape and environment should be visible. Yet while there is an abundance of images showing Yarmouth’s sea boundaries, the grazing marshes used by livestock, open farmland and clusters of small villages that surround it are absent. Nothing seems to recall Yarmouth’s history as a Hanseatic town or its contemporary relationship to agriculture. The one place of work, the harbour, central to Yarmouth’s role in the oil, gas and renewable energy sector, is visible, but even this is from the bird’s eye view and is therefore part of the ‘picturesque’ (see Bourdin et al. 2019). Very few images depict the surrounding area, and, where it is included, this as a background to places transformed into commodified spaces of relaxation.

The Absence of Culture
The second absence is that of culture and transformed heritage. When images show historic architecture, these are mainly buildings repurposed as entertainment centres. Even exceptions such as the town hall are usually present as a backdrop to the quay. And while some images emphasise historical aspects, these buildings alone cannot represent the thriving cultural life that exists in Great Yarmouth’s communities of artists and creators (Original Projects n.d.). Instead, the concentration of images portraying traditional seaside entertainment, such as the funfair activities, presents Great Yarmouth as a monoculture. There are no traces in the images of its candidacy to become a UK City of Culture 2025, which alone signals the existence of cultural organisations beyond tourism. Cultural events such as Yarmouth Festival (n.d.) or Finding Emerson Photo Festival 2021 (Utter Nonsense n.d.) are absent, implying that the image-set representing culture/heritage/architecture do not speak as cultural spaces.

The Absence of People
The third line of absence is Yarmouth’s people, whose residents and workers are largely erased in the image set by the ubiquitous tourist. The image set barely shows the people of Great Yarmouth engaged in their everyday activities, emphasising Radojevic et al’s (2020: 1) observations that an “aestheticization of the urban projects” makes social life unnoticeable. In this case it is less of an aesthetic gesture and more of an approach that commodifies the town as a place for sun, sea and fun, rather than a place to live. Also striking in the image collection is the disengagement with people (with the exception of two images from news media.
in the ‘others’ category). One shows a group of people working for the council celebrating a successful project and the second is a ‘mugshot’ of a young man convicted of drug dealing. All other human activity is seen from afar, creating an image of a faceless and distanced town, representing hardly anyone with whom the onlooker could establish a relationship (Kress & van Leeuwen, 2006).

These three lines of absence are significant when considering the role played by Google Images in representing Yarmouth, and of what is lost when such reductive strategies are adopted. The absence of everyday practices and people in representations of rural landscapes and their interconnected towns, which attract inward migrants and tourists alike, can, in effect, erase already marginalised communities and aggravate perceived differences between the metropolitan centre and the semi-peripheral town and its rural hinterland.

Conclusion

Google Images’ search results prioritize portraying Great Yarmouth’s identity as a town situated on the edge of the sea with hotels, a funfair, shops and a long, sandy beach. The sun shines, there are donkey rides, amusement arcades, mini-golf, and a miniatures village, giving an example of a created form of place making (Skinner 2018) as commodification. Such a representation skips and hides the tensions of a town battered by the capitalist waves of both the rural and the urban settlements: employment and migration, cultural diversity and historical heritage, infrastructure and services. Google Image’s representations of place drift away from Tuan’s (1979: 387) idea of place identity as emerging from people’s perspectives. Instead of a complex assemblage of diverse views the digital image of the town is flat and composed of replicated fragments.

This empirical research opens two relevant strands of discussion: first, methodological, and second conceptual. The use of digital methods to discuss representations of place is here an entry point. Certainly, Google Images search engine results are not neutral. The inscribed bias and search inequalities of the engine (Rogers 2019; Rose 2016) have been mentioned earlier; but still the results of the search are broadly determined by which representations would be discoverable online, and this alone opens strands for further research. Indeed, methodologically this experience seems to raise many operational and technical questions: from the specific discussion about the nature and internal wiring of the search engine algorithm, to the questioning of the search strings used, and the number of images acquired. However, this digital methods experience has brought a systematic opportunity to study the online representation of place.

The second contribution is conceptual. The concept of representations of place has been systematically defined as an assemblage of diverse competing
views echoing the variety of dwellers and visitors, tourists and labourers, and their interests. But what Google Images has shown is less diverse (RQ1 and RQ3). Analysis of image sources (RQ2) revealed that most of the digital visual representations of Great Yarmouth are owned by corporate businesses and tourism marketers selling sun and sea. Visions of inhabitants and artists, of historical sites and communities barely surface in the first three hundred image search results. This is a conceptual point because it might require establishing new dimensions to the notion of representations of place which highlight the role of power and the forms of imposition by which representations are established. The classic oppositions between tourism and locals or between economic growth and social inequalities are here deepened by a search engine that presents itself as neutral and actors knowing how to game its algorithm (see Halavais 2013; Rogers 2019). Google, in this sense, is not a referee of the competing understandings of the town, but a player imposing homogeneity where diversity should thrive. And yet, the experience presented here is only a start: future studies should investigate whether this methodological approach will elicit similar results when applied to other semi-peripheral towns beyond the UK.

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Endnotes

1 If no specific copyright owners were given for the images, we have cited the copyright owners of the websites that featured them.

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