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EDITORIAL

Innovation in regional graphics (and academic communication)

Jen Nelles, Kevin Walsh and Elvis Nyanzu

ABSTRACT

This editorial explores the importance and power of regional graphics for communication in both academia and practice. This journal regularly publishes regional graphics, which feature one or a series of visualizations accompanied by short text that frames the value of the research and includes methodological points. In the relatively short life of the journal, regional graphics have generated a significant amount of engagement and regularly appear on the list of most viewed and trending articles. This collection assembles a diverse range of regional graphics to showcase the variety of ways that visualizations can be used to convey regional arguments, to raise the profile of this type of contribution to *Regional Studies, Regional Science* and to highlight innovations in visualizations that can also be used to enhance standard length articles and academic engagement beyond this medium.

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Regional Studies, Regional Science regularly publishes regional graphics. These contributions feature one or a series of visualizations accompanied by short text, which frames the value of the research and includes methodological points. In the relatively short life of the journal, regional graphics have generated a significant amount of engagement and regularly appear on the list of most viewed and trending articles. This is testament to the power and versatility of graphics as tools to transmit complex information in a concise, accessible and often arresting manner.

However, while the regional graphic is a regular feature in *Regional Studies, Regional Science*, we felt that the value and impact that these visualizations make on academic discourse and to practice deserved more of the spotlight. Our aim was to assemble a diverse collection of regional graphics to showcase the wide range of ways that visualizations can be used to convey regional arguments to raise the profile of this type of contribution to *Regional Studies, Regional Science* and to highlight innovations in visualizations that can also be used to enhance standard-length articles and academic engagement beyond this medium. We were particularly inspired to raise the profile of our regional graphics due to the popularity and innovation in visualizations catalysed by the #30DayMapChallenge – a movement that started on Twitter by one of our guest editors, Topi Tjukanov.[1]

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The #30DayMapChallenge and innovation in regional graphics started in 2019 and is a daily mapping/cartography/data visualization challenge that occurs annually in November, initially aimed at the spatial community, but which has broadened its appeal over the years. For each day of the month participants are challenged to create a map based on a specific theme (some examples include points, polygons, islands, elevation, etc.), set by Tjukanov on the challenge website.[2] Tjukanov is a geographer and senior map designer at Mapbox. The challenge has gained worldwide recognition, and the 2021 edition saw participation from more than 1200 mappers across 90 countries and 32 languages resulting in over 9000 maps (Patino, 2021).

As academics interested in regionalism and regional space, the guest editors revelled in the veritable firehose of fascinating graphics that each iteration of the challenge generated. In this month-long frenzy of graphics we found many lessons relevant to regional graphics in particular, and academic communication in general.

The nature of the challenge – to adopt a different way of visualizing data every day – meant that contributors had to be innovative and creative. The mappers who were accustomed to working with specific datasets were often able to show different facets of that data using different techniques. Experimenting with methods outside of their comfort zones (or the obvious) sometimes revealed interesting insights, but also highlighted the advantages (and sometimes glaring disadvantages) of applying different approaches to the same questions, problems or data. These insights were as valuable to the observer as to the creator and demonstrated the importance of tool selection in graphic visualization as well as the value of trying to see, and show, data from different angles. As academics, we are incentivised to compile our research in the format of academic journal articles where writing is the primary form of visual communication. Visuals sometimes accompany the words, but the text dominates. We should perhaps be inspired by the adaptability of the mappers taking part in the #30DayMapChallenge and challenge ourselves to see our own work differently by adopting different tools, reducing our own message to a single graphic, and allowing the image to do the communicating. What different kinds of insights would such an experiment yield? What different dialogues?

Another important lesson, for graphics and academic communication alike, is that complexity is not necessary to create impact. In its purest form, the #30DayMapChallenge encourages participants to make a map on the specified theme every day *from scratch*. Many do not adhere to that interpretation and present polished, professional work that reflects the theme of the day but that were previously created over more than a single day. However, those who do are forced to work within tight time limitations. One consequence of this is that participants often must keep things simple. Sometimes simple translates into basic, ordinary or uninteresting. But in other instances, simplicity generates clarity, increases accessibility and magnifies impact (Blaise & Dudek, 2014). Some of the most powerful graphics produced were the simplest, showing that innovation in regional graphics sometimes means doing more with less. Therein lies another lesson for academic communication more broadly: just because we *can* say things in a complicated way does not mean we *should*. Furthermore, the process of distilling the complexity of our research into simple terms is another form of the exercise of shifting perspective to 'see' our own work differently.

Finally, the #30DayMapChallenge highlights and celebrates one of the most important dimensions of graphic visualization: accessibility. Presenting (often complex) information graphically can reduce communication barriers and encourage people to engage with topics that seem inaccessible. This kind of tool is invaluable in broadening audiences for our research and generating impact, particularly in the era of social media. The #30DayMapChallenge, however, also highlights another dimension of accessibility – that this is something that happens not only on the information consumption (observer) side of the equation but also on the creative side. The challenge attracts people from a wide range of backgrounds, from accomplished professionals to hobbyists all of whom have the potential to create graphics with impact. Armatures

armed with good data, a clear message and a basic facility with visualization tools (of which there are many to choose from) are also capable of, and sometimes end up, pushing the boundaries of the medium. In a similar vein, we want to emphasize that regional graphics in this journal should not be, and are not, exclusively the province of the very experienced and highly skilled. Anyone with an interesting message and the means to convey it is encouraged to submit their work.

It is with these ideals in mind that we put out a call for regional graphics for this special issue. The submissions that we received reflected both the breadth of topics that fall under the banner of regional studies and regional science and the variety of types of regional graphics. Each of the contributions exemplifies at least one aspect of the themes discussed above: seeing data in new ways, simplifying the complex and prioritizing accessibility.

Radburn and Beecham's (2021, in this issue) graphic of neighbourhood deprivation in England depicts this data in a different way than it is normally mapped – using a spatially ordered treemap rather than a conventional map. Showing the data this way reveals patterns that are ordinarily obscured due to the differing geographical density and distribution of spatial units on conventional maps. Kontou's (2022, in this issue) use of three-dimensional cylinders to map spatiotemporal changes to Arctic sea ice similarly uses a novel technique to bring patterns of change that are difficult to show in two dimensions to light. The cylindrical presentation enables viewers to pick out anomalies more clearly in both space and time. Sattler et al.'s (2021, in this issue) map of the global knowledge economy combines maps and graphical elements to draw attention to uneven development and increasing macro-regional inequalities as well as to the relationships between those measures. On a similar theme, Kogler and Kim's (2021, in this issue) map of the UK knowledge and technology spaces combines methods to reveal the degree to which the evolution of those spaces is reliant on international knowledge spillovers. Ballantyne et al.'s (2021, in this issue) map of retail visits in the Chicago region during the Covid-19 pandemic combines graphical elements with an animated map to highlight drastic shifts in both the nature and spatial implications of consumption behaviour during the crisis. This presentation demonstrates and raises important questions about the configuration of retail geographies that are relevant beyond the Chicago region and context of the pandemic.

Other maps in this special issue seek to simplify the complex, relying on clean visualizations to make their arguments. Maximenko and Maximenko (2021, in this issue) map the physical location of bank branches in Moscow revealing obvious geographical gaps. In a similar vein, Mikhaylova et al.'s (2022, in this issue) map of digitalization of urban space in Kaliningrad aims to show spatial correlations between the build environment and digital access. In this case, showing a map series enables a quick visual assessment of the relationship between areas of higher speed digital infrastructure and age of buildings to construct an argument about significant gaps in digital coverage. Janes-Bassett et al. (2021, in this issue) also use a map series to explore the relationship between agricultural expansion and the carbon storage potential of the natural environment in the East of England. These maps show clear links between the loss of forests in the conversion to agriculture with significant implications for national climate change and carbon sequestration strategies. Mewes and Ebert (2021, in this issue) present a heatmap of entrepreneurial potential in Great Britain that shows substantial differences in potential across postcodes nationally and in major cities. Here the reliance on finer grained data and a smoothing technique provides greater detail of the variations in these patterns. Walsh's (2022, in this issue) graphic depicting the trade flows of potatoes and fruits and vegetables in and out of Ireland elegantly illustrates the likely consequences of Brexit for Irish food security. Both Ma's (2022, in this issue) and Ma and Huang's (2022, in this issue) maps use network diagram and mapping methods to visualize urban networks of innovation and innovation collaborations in China. Finally, Väänänen et al. (2022, in this issue) show that regional graphics do not always need to have a mapping component in their depiction of a

roadmap for wellbeing policy in the Päijät-Häme region of Finland. This graphic visually summarizes the components of a public policy programme for sport, experiences and well-being linking a variety of elements in an easy-to-understand form.

Each of the regional graphics above prioritizes accessibility in different ways. For example, the contributions related to the environment (Janes-Bassett et al., 2021, in this issue; Kontou, 2022, in this issue) aim to render complex scientific ideas and longitudinal patterns obvious to non-specialist audiences and elicit a powerful logic for intervention. Ballantyne et al.'s use of animation instantly shows changes in patterns and invites engagement. The economic maps (Kogler & Kim, 2021, in this issue; Sattler et al., 2021, in this issue; Walsh, 2022, in this issue) distil complex global and regional trade and knowledge flow relationships into graphics that set out problems and implications clearly, setting out compelling cases for further inquiry. The maps depicting gaps (Maximenko & Maximenko, 2021, in this issue; Mikhaylova et al., 2022, in this issue) are quite literally about increasing accessibility to key services and infrastructure.

Taken together, this collection of graphics demonstrates a set of approaches to visualizations in regional studies and regional science. Although there are obviously many other graphical visualization methods and techniques, these demonstrate some of what is possible and showcases the power of this kind of communication. In this editorial, we also draw out lessons for all forms of academic communication, drawing inspiration from the graphics in this collection and the contributions of the participants of the #30DayMapChallenge. Our hope is that a broader range of scholars see the potential of graphics as a mechanism to translate their research to audiences to increase the impact of regional studies and regional science.

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DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

NOTES

[1] See https://tjukanov.org/aboutme/.
[2] See https://30daymapchallenge.com/.

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