



THE UNIVERSITY of EDINBURGH  
Edinburgh Futures Institute

EFI Design Lab | Case Study

**Edinburgh Futures Institute Design Lab**

---

# Digital influence on perceptions of Scotland

# The Digital Influence and Intelligence Lab

**Measuring public sentiment and perceptions of Scotland by building a large-scale searchable Twitter database to map social media narratives.**

The *Digital Influence and Intelligence Lab (DIIIL)* is leading research in co-development with the Scottish Government to map perceptions of Scotland in the context of social, cultural and political events on social media. This insight is being leveraged to understand digital influence and its impact on emotional resonance and perceptions of Scotland, particularly in relation to Covid-19.



Cover image credit: Nejc Soklic  
Image right credit: Jonas Leupe

# Understanding digital influence

Over recent years it has become increasingly apparent that digital media, including social media, is shaping narratives around societal and political events, as much, if not more so than traditional media outlets. The beginning of the Covid-19 pandemic presented the opportunity to harness 'big data' processes and insights from social media monitoring to not only map, but understand more deeply, the influence that digital spheres have.

This is where the *Digital Influence and Intelligence Lab (DIIL)* project originated as part of the Edinburgh Futures Institute Design Lab, a programme created to insert design thinking in research and innovation and initially supporting a series of co-development projects that encourage Covid-19 recovery and long-term sustainability in Edinburgh and its surrounding regions.

Led by Laura Cram, University of Edinburgh Professor of European Politics and Director

of the School of Social and Political Science's Neuropolitics Research Lab, Dr Gerry Power from M&C Saatchi World Services and Stuart MacDonald from ICR Research Ltd., and in collaboration with the SMASH group from the University of Edinburgh's School of Informatics, *DIIL* is working through co-development with the Scottish Government to focus on leveraging digital resources to understand perceptions of Scotland in relation to social, cultural and political events and how digital media, such as social media, influence these perceptions.

This means looking at how Scotland and the Scottish Government is being talked about, how these conversations affect, persuade and resonate with people and their perceptions of Scotland in relation to events such as Covid-19 and Brexit, and then how these compare to the conversations in other countries.

**“*DIIL* is not just mapping what’s going on in tweets, but trying to find out how influence affects people, how it resonates beyond the written word.”**

**Laura Cram**  
DIIL

# A searchable database

**“One of the big advantages with looking into social media dialogue is that you get an unfiltered, spontaneous conversation. Somebody had to think, right, at this moment something’s moving me, I want to talk about it, and that gives you a whole different story.”**

**Laura Cram**  
DIIL

Image right credit: Daria Nepriakhina

Through access to Twitter’s full Covid-19 stream, granted exclusively to certain academic groups, and methodologies previously learned by the University of Edinburgh’s SMASH group and by the Neuropolitics Research Lab from gathering datasets on narratives around Brexit on social media, the *DIIL* team have been able to build a searchable database of over 700 million tweets.

This database allows insight around sentiment and perceptions to be drawn on a number of topical issues affecting Scotland, including politics, festivals and culture. When you examine social media narratives, as opposed to traditional media sources, you are faced with a dialogue that is unfiltered, spontaneous and unique.

Although this may not be as representative as gathering insights from more traditional methods, or as nuanced as those found in

traditional media sources, what the *DIIL* project captures is influence. This means investigating what is affecting people, or moving them to express something – whether it’s positive or negative, and comparing these insights to perspectives in other countries such as England, or Wales, to see if similar or different narratives are emerging in those contexts.

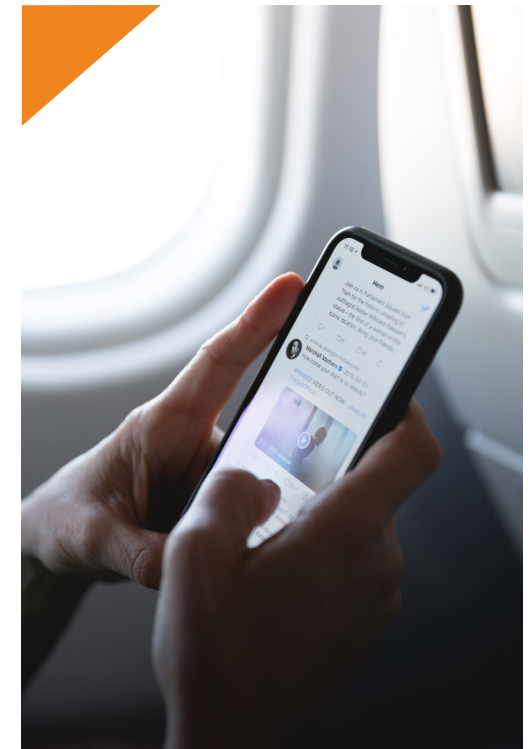


# Perceptions of the Scottish Government's response to Covid-19

*DILL's* database gives us the opportunity to look at, and pull insights from, emotional resonance and digital influence in relation to any number of social or political events on a new level.

When it comes to perceptions of the Scottish Government's handling of the Covid-19 crisis for example, the research finds that the response to the pandemic and the narrative across Scotland, England and Wales are connected to the respective internal political landscape. In Scotland this means that the emerging narrative on Twitter is very much interlinked with discussions about Scottish Independence. They also found that public reaction to Covid-19 restrictions in Scotland were more positive than in England or Wales.

Going forward, *DILL* wants to move away from looking exclusively at quantitative 'big data' when making meaningful decisions. Instead of considering simply how many hashtags or mentions on Twitter there have been, they want to think about and understand what these numbers mean in practice, how they reflect public sentiment and how that sentiment might be different in different groups of the public. In future studies, *DILL* wants to incorporate an experimental component that will examine how these 'big data' narratives generate different responses.



# The role of Edinburgh Futures Institute Design Lab

As part of the Design Lab, *DIIL* benefited from being drawn together with a group of projects who all had different but connected ways of working on co-development, onboarding partners and engaging across different disciplines and sectors – all with the intention of creating local and regional impact.

Get in touch and find out more about EFI and the Design Lab projects:

Email: [efi@efi.ed.ac.uk](mailto:efi@efi.ed.ac.uk)

Web: <https://efi.ed.ac.uk/>

Funded by:



THE UNIVERSITY  
of EDINBURGH



The EFI Design Lab is part of a new programme alongside the Urban and Regional Data Platform to support the recovery and long-term sustainability of the Edinburgh City and Regions. Initiated over the last year, using Data Driven Innovation (DDI) Programme and SFC (Scottish Funding Council) funds awarded to the University of Edinburgh and distributed by DDI, the programme is led by the Bayes Centre and Edinburgh Futures Institute. The Design Lab encompasses four demonstrator projects that showcase the key themes and objectives of the Lab, including using data driven innovation with design and co-creation, prioritising multidisciplinary approaches and cross hub participation, creating and demonstrating local/regional impact, and evidencing an economic focus on Scotland's post-COVID-19 low-carbon economy aspirations. Image right credit: Edinburgh Futures Institute

