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Finding and using data to understand university impact

A synthesis of articles on user-centred dashboard design

By Adira Andlay and Jess Redmond, October 2025

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About the Institute for Community Studies

The Institute for Community Studies is a research institute with people at its heart. Powered by the not-for-profit organisation, The Young Foundation, the Institute works to influence change, bridging the gap between communities, evidence, and policymaking.

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1. How user-centred design can transform university civic activity with data-driven dashboards

Action without insight will go quickly awry. Data-driven approaches are therefore essential for a civic university trying to make an impact in local communities. Yet finding data to understand university impact can feel like searching in the dark. Mechanisms to understand how *students* and *staff* feel about university activities may be well known, but mechanisms to hear from *local communities* tend to be underexplored. So how can universities understand their civic impact in place?

This paper intends to shine a light in that darkness. It shares how the National Civic Impact Accelerator and the Institute for Community Studies at The Young Foundation co-designed dashboards with universities to support their civic activities, starting with a 'Civic Impact' dashboard, and describing how our User Centred Design journey developed inclusive and accessible data-driven approaches for greater social impact.

Why create a dashboard?

A 'dashboard' is attractive because it can condense and visualise a wide range of data to support decision-making. However, dashboards without a clear purpose or understanding of their users can distort, rather than clarify, information. While dashboards appeal because interpreting visuals feels simpler than wading through numbers, data that appears intuitive in a chart may, in reality, be messy and complex. For example, HESA university data has well-documented issues with data quality, caused by challenging data collection processes, and a reluctance of universities to sharing data for fear of looking bad.

A deeper challenge is that dashboards, as well as communicating information, shape our understanding of how the world works. If not paired with good data literacy, a

dashboard may give its users a distorted impression of control or certainty. Civic universities should aim to create shared understanding and activity with local stakeholders, not act as a distant and powerful 'mission control'. A lack of clear purpose or cross-purposes can also produce dashboards without a clear 'use'. Dashboards that are not helpful are not used – and dashboards that are not used are not maintained, worsening data quality issues.

Despite these challenges, the need for accessible data on university civic impact remains. So, the Institute for Community Studies adopted a User Centred Design (UCD) ethos. This is an iterative design process in which designers focus on the users and their needs, and design teams involve users throughout the design process to create highly usable and accessible products. This relies on developing an understanding of what dashboard users need in terms of accessibility, in scenarios where the dashboards would be used, and in the user's full experience of the dashboard.

By understanding the scenarios a dashboard will be used for, it's possible to be deliberate about how the university sector uses its data, with recognition of data limitations. Our work built on the excellent work conducted by City-REDI for their Civic Impact Index, and the Institute's technical expertise in UCD, to create a product university staff can use to advocate for and understand their civic impact.

UCD requires proper investment in technical skills, staff resources, and time. This paper on our dashboard development shares our learnings and reflections.

2. Challenging assumptions with user-centred design

The beauty of UCD lies in its ability to rapidly challenge assumptions. When The Institute for Community Studies embarked on the Civic Impact Dashboard project, we assumed that university stakeholder and audience roles would be clearly defined, and that users wanted to see and access numerical data reflecting their universities' civic impact. However, during our first workshop, these assumptions were quickly dismantled; our UCD approach has already revealed a much more complex and holistic set of needs and desires.

Overview of Workshop 1: defining user needs

The aim of our first workshop, involving our user testing group of university staff, was to identify the *critical data questions* that potential users of the Civic Impact

Dashboard wanted to answer. This uncovered a spectrum of needs, including accessibility requirements, that informed design. By understanding why someone would use the dashboard, we could specify detailed user requirements and begin formulating potential solutions. These solutions were then refined and tested further in subsequent workshops.

In UCD, understanding the 'pains' (obstacles to achieving goals) and 'gains' (opportunities unlocked when a goal is achieved) of users is crucial. To surface these, we guided workshop participants through a series of reflection questions:

- *Based on your background, expertise and job position, can you identify a goal for your place or local community (civic goal) that you aim to fulfil by accessing data to support a decision?*
- *In your current job, what is a challenge (pain point) that you face in being able to read, evaluate, and apply data with university civic strategic aims?*
- *In your current job, what would be a valuable benefit (gain point) in being able to read, evaluate, and apply data with university civic strategic aims?*
- These questions framed our analysis of the real-world challenges that university staff face when interacting with data. By understanding their 'pains' and what would constitute 'gains', we gained invaluable insights.

Three key challenges

During the workshop, participants used a digital collaborative tool (Miro) to map their thoughts, ideas, and scenarios across several key activities:

- **User needs identification:** Participants shared their specific data-related challenges, such as difficulty finding reliable local data and limited understanding of how to interpret existing datasets. A few more factors included:
    - a broader definition of civic index measures ie, to include arts and culture, health, etc, which were not currently recognised.
    - mixed data types, as civic agreements require both quantitative and qualitative data.
    - universality, as benchmarking across universities is challenging.

- **User needs scenarios:** We developed four example users, or 'user personas', based on staff roles: evaluation, partnerships, community engagement, and data expert. These personas were based on the information the user testing group shared about their roles and responsibilities when they applied to be involved. We observed that the user testing group broadly saw themselves as cutting across all these roles, showing the 'holistic' nature of the civic university work. Participants highlighted that equitable prosperity must be a key focus, demonstrating impact, and proving a key attraction for students. They also acknowledged the need for sensitivity around how inequalities data is represented and shared, for example in terms of reflections on local areas.
- **Accessibility mapping:** Accessibility was a recurring theme throughout the workshop. Users highlighted the need for inclusive design that caters for those with limited technical skills, as well as the importance of information design in ensuring data is not skewed in a visual representation.

A multidisciplinary approach

One of the key takeaways from the first workshop was the importance of a multidisciplinary approach. Workshop participants came from diverse backgrounds, bringing expertise not just in data, but in design, user engagement, and education. Yet all saw a similar mission for using data: to ensure civic work done with communities is valued and valuable to their institutions, using storytelling with narrative and numerical data to communicate compelling and holistic stories.

Based on these insights, the prototype wireframe versions of the Civic Impact Dashboard were developed and tested by the same user group over the coming months. This iterative process allowed us to refine the dashboard based on real-time feedback, in preparation for an alpha version.

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3. Prototyping the Civic Impact Dashboard

A difficulty with approaching design from the perspective of the *user* is it can reveal many 'pain points' that arise as the user achieves their goals. For those developing solutions to such problems, the challenge is recognising what is achievable within the scope of the project.

The UCD journey undertaken by the Institute for Community Studies to develop a Civic Impact Dashboard was no different. Our work with our testing group of university staff revealed challenges at different stages, and from different internal and external perspectives, when using data to explore their university's impact. How could we, as partners seeking to support civic universities, decide which of these challenges to most usefully tackle?

Overview of Workshop 2: Testing the user journey

Following Workshop 1, where we sought to understand the *critical data questions* that potential users of the Civic Impact Dashboard wanted to answer, staff at the Institute designed some low-fidelity 'prototypes', or very basic representations of the final dashboard.

Prototypes are used in UCD approaches because they can help people to practically engage with the potential limitations and opportunities of the final design, and get immediate and targeted feedback from users. Institute staff approached this prototyping in two ways:

- **User journey mapping:** A user journey map is a visual representation of the steps taken when using the dashboard to address a data need.
- **Early prototypes:** By identifying a gap in an existing interactive dashboard tool supporting universities to assess their local conditions (the Civic Impact Index), Institute staff designed example screenshots of a dashboard screen that could be used to explore the arts and culture impact of a university.

These approaches were used to test whether the Institute had made the right assumptions about what university staff need to address their data goals. Rather than dealing in the abstract, presenting something users could interact with allowed for concrete feedback on what the proposed solution was, and was not, addressing.

The user journey

Figure 1: User journey map

As we developed our user journey map, it became clear that, for many, pain points with data arise long before they might consult external data sources. Several members said the first challenge they faced around understanding and measuring university civic impact was operational, bringing challenges around collating data *within* the university. 'Civic' work at a higher education institution rarely sits under a single department; instead, it engages with its local community both as part of dedicated outreach and through core activity, such as research and teaching.

Collating the impact of all these activities was difficult because staff across different departments and programmes often use ad-hoc measures or metrics to capture impact data (if impact measurement is considered at all) and the data is rarely consolidated by a central data team.

This posed a challenge for our Civic Impact Dashboard, which focuses on understanding impact using external data sources, such as the Higher Education Statistics Agency (HESA). The user testing group said the 'user journey' assumes

these operational challenges have been resolved. In fact, long before looking at external data to understand impact, university staff face issues understanding exactly *what* university civic activity is and encompasses.

Another interesting observation from this part of the workshop was the importance of identifying communities that were underserved by university activities. Users were keen to benchmark their university against comparable institutions, such as universities in similar geographic regions, universities of a similar type (eg, Russell Group), or universities with a similar focus (eg, arts focused). This was preferable to producing a 'league table' across *all* universities, which was seen as less meaningful, and introduced an undesirable framing of competition.

Data sources for university impact

Figure 2: Prototype screens exploring arts and culture impact

The prototype dashboard screens (Figure 2) opened an important conversation about how to integrate data from multiple sources, both external and internal to the university. Users wanted to see a granular, place-based picture of their university's impact on their local community. However, as data is collected at different geographies, it can be difficult to map this effectively in a place (eg, data collected at ward level compared to across institution-specific geographies, such as Integrated Care Boards). The exercise of *linking* different data (eg, between different points in time, qualitative and quantitative, external and internal data) was identified as key for drawing out a picture of university civic engagement.

Taking the work forward

The design journey of the Civic Impact Dashboard highlights the complexities universities face, from fragmented internal data to integrating diverse external data sources. To help universities better understand and demonstrate their contribution to their communities, our dashboard can address *some* key challenges identified - such as allowing universities to benchmark against each other and use external data to explore their contribution to places. However, no one tool or resource will provide all the answers.

This work reveals an opportunity to meet wider challenges, being mindful and transparent about where the scope of dashboard will end, and how this work can evolve and build, with future resources and connection with work that is led by wider NCIA partners, such as:

- Feeding back learnings to NCCPE, who lead NCIA action learning groups focused on how universities measure their civic impact.
- Developing our place dashboard, supporting universities to understand the conditions in their places, to meaningfully inform priorities.

4. Building the Civic Impact Dashboard with accessibility in focus

In the world of data visualisation and impact assessment, design shapes how we perceive, understand, and connect various metrics. Ensuring accessibility isn't just a 'nice to have', it's imperative to creating truly inclusive experiences. Yet, how might we prioritise accessibility without slowing down the rapid pace of a UCD approach? This was a key challenge as we wrapped up our workshops with the user-testing group.

Workshop 3: Testing an early prototype of the dashboard

Workshop 3 focused on testing an early-stage iteration of the dashboard, built using Tableau software, so we could understand how effectively it responded to the needs (pain points) of civic university staff when using data to understand their universities' civic impact. We did this by designing the workshop to include activities:

1. scoping the dashboard solution
2. running a live demo of Tableau prototype
3. reflection on accessibility in UCD

Scoping the dashboard solution

	Before Dashboard	Dashboard	After Dashboard
Challenges	**Internal Data:** HEI staff challenge to coordinate and consolidate internally collected data on the impact of civic activities	**Benchmarking:** HEI staff want to compare their performance against other universities **External Data:** How to use external data to understand impact	**Storytelling:** Combining quantitative data (internal and external) with qualitative data to create a narrative of civic impact

Figure 1: Table explaining the role of the dashboard in HEI user journey

As identified in chapter 3, for the dashboard to be effective it must be targeted towards solving a clearly defined set of issues, and not become unwieldy by taking on too many needs at once.

To communicate this with the user testing group, we presented a table (Figure 1) explaining where we felt the dashboard could address pain points in an HEI staff member's user journey when seeking to evaluate civic impact. This consolidated our earlier reflections to present back to our users. We also discussed how other pain points could be addressed through other parts of the NCIA project.

The group affirmed a clear scope for the dashboard: to address the challenge of benchmarking against other universities and use external data to understand the impact of their university. HESA data allows for a direct comparison from university to university, as demonstrated by the civic impact index. Other data used in the dashboard, mostly based on geographic areas rather than specific institutional activity, is less useful for direct comparison but can provide useful contextual data to evaluate impact.

The live demo

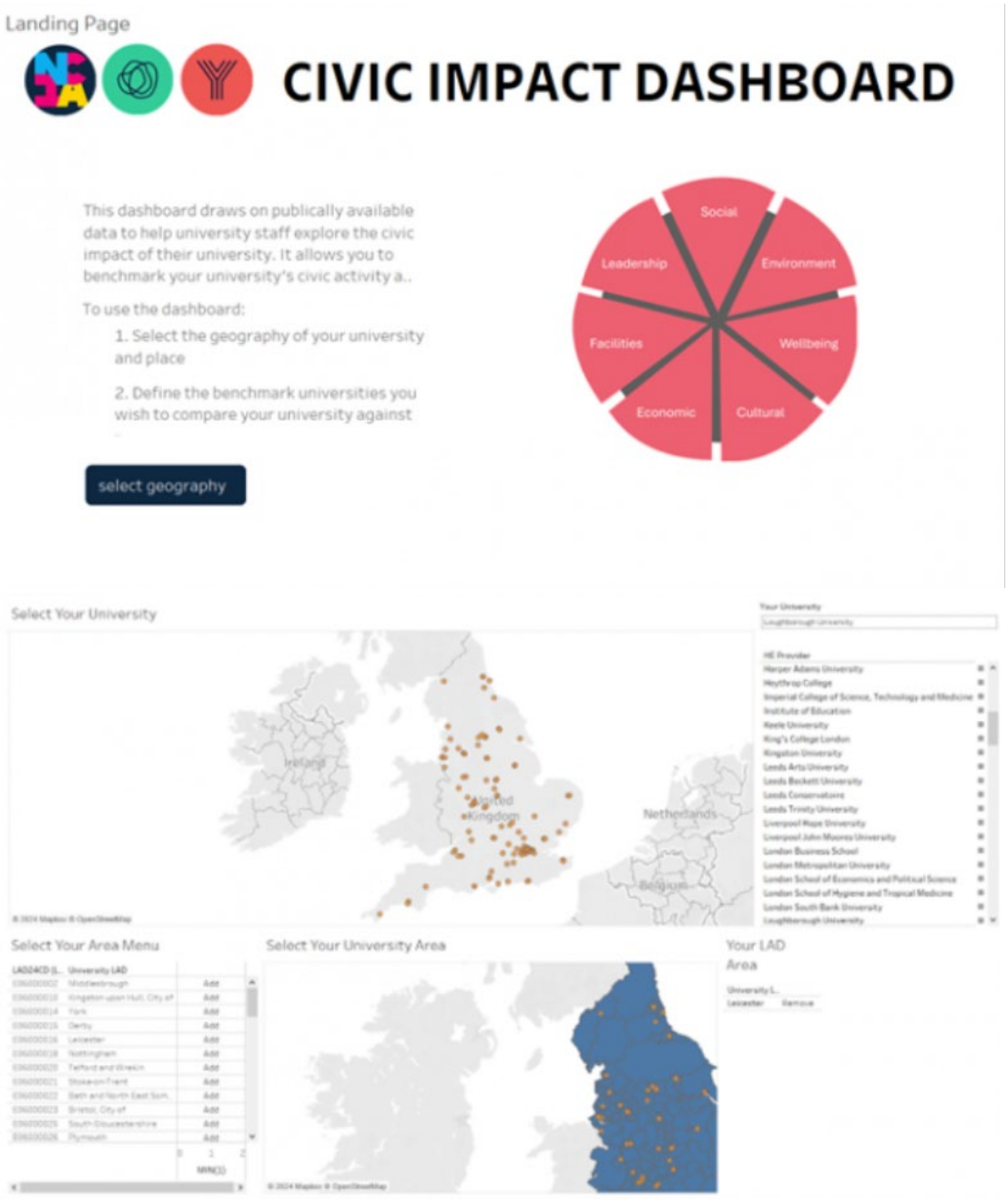

Figure 2: Screenshots of the Tableau prototype

We then presented via a live demonstration and screenshots the prototype dashboard with:

- a landing page to explain the purpose of the dashboard and the challenges it is trying to address.
- screens that allow users to select their university and their geographic area of interest (currently Local Authority District level only).
- a function that allows users to select data to compare their university and area's trends over time against benchmarked universities and their places.

The user testing group provided positive feedback on the progress of the dashboard so far and provided some helpful insights. These focused on:

- combining different university data to reflect where a consortium of universities have agreed to sign a joint civic agreement and act in collaboration.
- provide clearer legends, glossaries and metadata to provide context and data literacy support for users.
- overlays for the benchmarking page that can help users identify suitable benchmark universities – such as post/pre 1992 founding dates.

Reflections on accessibility in UCD

- Feedback from the user testing group indicated that we had been able to respond to user group feedback around the main priorities and constraints for this output within the constraints of the workstream for this project. This included dashboard features within both data and design realms that were viewed as good work, with incredible support from the group.
- A challenge with our approach (and the additional factor of time constraints) has been that general questions on accessibility have often been overshadowed at the cost of more technically oriented questions about data and evaluation support. A challenge with the user testing group we brought in

remained that their pre-existing expertise, and primary focus on data, meant they struggled to situate themselves as 'laypeople'. In this context, the focus on accessibility required further introductory workshops that could have primed the user group to provide guidance and information on the importance of inclusive and accessible digital design and then allocate time with them to reflect on these principles in terms of the dashboard.

- The next phase of the development will involve releasing the dashboard online so a wider group can access it – and now we begin to shift gears to strategically plan for how we can ensure accessibility is given its due at this stage by including various tracking and measurable analytics, as well as feedback forms based on the user interface journey. Moreover, in our commitment to accessibility we plan to also to do an internal testing session with the wider team at The Young Foundation.

5. Launching the Civic Impact Dashboard prototype

After a UCD process conducted over the second half of 2024, documented above, we launched the first working prototype of the NCIA Civic Impact Dashboard.

The dashboard is currently a prototype; it only contains data on the cultural impact of universities. However, by interacting with and feeding back on this prototype, users helped us to further refine the design and content.

At an online workshop on 1 July 2025, we gave a demo of the dashboard, hoping to learn from as many potential users as possible, to ensure the version launched at CiviCon in October 2025 meets user needs effectively and accessibly.

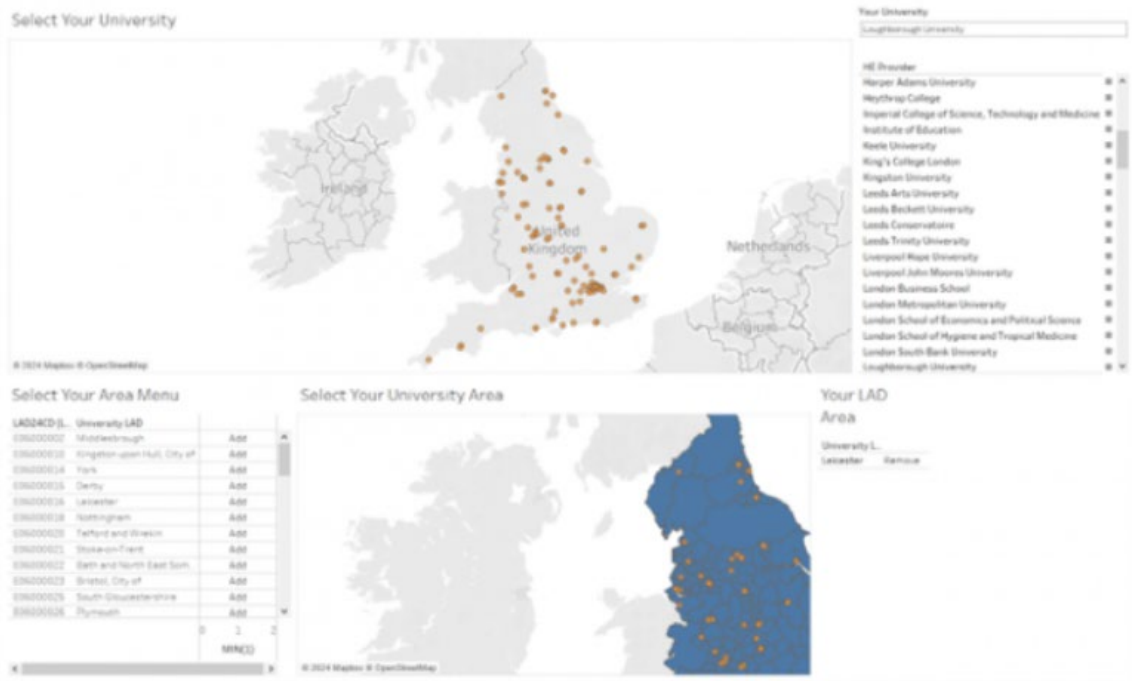

Figure 2: Screenshots of the Tableau prototype

The prototype dashboard

The Civic Impact Dashboard is a data visualisation tool to support HEI staff to understand and explore the civic contribution of their university to their local area. Whereas many HEIs will already collect internal data about the impact of their programmes, the dashboard intends to supplement this activity by:

- **Improving access to publicly available data:** By identifying useful, publicly available data for HEI staff and consolidating it in a single place, the Civic Impact Dashboard seeks to support university efforts in evaluating their impact and identifying priorities for their places.
- **Improving ability to 'benchmark' against similar universities:** The dashboard allows universities to select a 'benchmark' set of universities to compare their institutions' activity against. This allows users to better contextualise their university's activity and open opportunities for collaboration.

The Dashboard was developed using Tableau, a data visualisation tool. Users move through the dashboard by selecting their institution, their 'place' (currently selected through Local Authority Districts), and benchmark institutions. They are then invited to explore university impact through the different lenses of the Civic Impact Framework. Graphs and data identified by the dashboard can be downloaded for use offline and combined with internal and qualitative data to tell an individual university narrative of civic impact.

Recap: how the prototype was developed

When we started developing the dashboard, we identified several challenges in creating a tool to support universities with data. Firstly, without a clear purpose, the dashboard may distort (rather than clarify) information. Second, a small or non-existent user base would mean data was not maintained and could become further distorted. This could result in a dashboard that misleads users. To address these challenges, we took a UCD approach to dashboard development, recruiting a small user testing group of HEI staff from across England with a wide range of roles, seniority, and experience in using data to understand university impact. From the second of our three co-design workshop, we produced draft versions of the dashboard (first simple wireframes, then Tableau screenshots) to test our ideas for solutions with potential users and rapidly incorporate their feedback.

Through this process, we discovered several insights for how HEI staff use data:

- First, the importance of accommodating multidisciplinary approaches to using data. HEI staff were keen to access data not just to quantify their impact, but to ensure civic work with communities was valued and valuable, using storytelling that combined narrative and numerical data.
- Secondly, the importance of having the right scope. Many different user issues were raised during our workshops. Trying to solve all issues with one product would result in a lack of focus and poor design. Instead, the NCIA collaboration has sought to map the user journey and needs to the wider programme's intended outputs, and identify the best gap to fill with the Civic Impact Dashboard and other upcoming outputs (such as NCCPE's Civic Outcomes Framework).
- Finally, the challenge of addressing general questions of accessibility, which were often overshadowed by more technical questions of data and evaluation support. Many of the user testing group had strong expertise and interest in civic impact evaluation, making it difficult for participants to situate themselves as 'laypeople'.

Developing the dashboard

We then moved to opening testing with a wider audience by publishing a prototype online for all to experiment with. With feedback, we added more data and improved the design, with the final dashboard launch at CiviCon, 14-15 October 2025. To help us, a feedback form was shared alongside the dashboard to record user experiences with, and thoughts on, its design.

All insights helped shape the Civic Impact Dashboard, help us build a tool that we hope truly supports the civic agenda.

Click here to explore the Prototype Civic Impact Dashboard

6. Supporting universities to think differently about impact.

Why civic data matters

For decades, universities have collected mountains of internal data to demonstrate their value, spanning graduate outcomes, research incomes, widening participation, and more. Yet, what has often been missing is a way to see the whole picture of how a university contributes to the wellbeing of its place, community and neighbourhood. Too often, data is fragmented, buried in departmental silos, or presented in ways that fail to connect with the wider civic agendas. As a result, civic impact is hard to evidence, harder to compare, and nearly impossible to benchmark in ways that are meaningful for decision-making.

The landscape is shifting. Universities are under increasing pressure from funders, government, and their communities, to show not only what they do internally, but how they shape the places they are rooted in. Traditional metrics of success don't capture this. But now, the Civic Impact Dashboard brings together publicly available data into a single, interactive tool, designed specifically with Higher Education Institution (HEI) staff in mind; where they previously had to piece together data across multiple systems - without a clear way to contextualise what it means, or to compare themselves with peers - the Dashboard enables users to:

1. **access and consolidate data** that was previously scattered or inaccessible across domains of the Civic Impact Framework
2. **interpret university and place data side by side**, creating new insights into how civic contributions connect to local needs
3. **benchmark against similar institutions** to identify strengths, gaps, and opportunities for collaboration

Following the successful launch of the first working prototype of the NCIA Civic Impact Dashboard in March 2025, user feedback came through several channels including an online form, direct emails, and analytics data. However, it was limited, so a user feedback workshop took place in July inviting HEI staff to identify how they

navigate the dashboard; where they feel confident, confused, or lost; and which data feels most or least useful.

User-centred design

In developing the dashboard, we took a User-Centred Design (UCD) approach, centring 'users' and their 'needs' in the design process, targeting product development towards solving a clearly defined set of issues for a defined set of users. We recruited a small user testing group of HEI staff across England - with a range of roles, seniority, and experience in using data - to understand university impact. Their involvement led to:

4. **Subject Matter Expert (SME) interviews,** to help identify which data was most important for assessing impact across the seven civic domains.
5. **a data dictionary** in both visual and detailed formats, capturing potential metrics, sources, and definitions in one place.
6. **wireframing based on a UCD approach** to test and refine how the dashboard should look and function, so users could explore university and place data side by side.

Based on the feedback, key information and design priorities were mapped against the dashboard objectives. These included areas of redevelopment, focused on:

7. **clarity of information design**, simplifying how graphs are displayed, from the number shown on each screen to the data within them, to make insights easier to read and apply to university contexts.
8. **clearer purpose and use cases**, setting out when and how the dashboard should be used, and by which types of HEI staff, so its value is better understood.
9. **more intuitive interactivity**, moving to a tab-based navigation system, supported by clear visual and motion cues such as icons and buttons.
10. **shared language**, defining key terms such as *analysis* and *impact* more clearly, and showing how data from the dashboard can support meaningful interpretation and action

The Civic Impact Dashboard 2.0

The Civic Impact Dashboard is a data visualisation tool which supports HEI staff to understand and explore the civic contribution of their university to their local area.

Many HEIs already collect internal data about the impact of their programmes. The dashboard can supplement this activity by:

11. **improving access to publicly available data**, consolidating it in a single place. This supports universities to evaluate their impact and identify priorities for their places.
12. **to help university staff understand their institution's progress against the seven civic impact domains** and how this might relate to local conditions or compare to other universities. Ultimately, it shows them where they stand and helps them identify which areas need more attention and investment to increase their future impact.

The dashboard doesn't show causation, and although the word 'impact' is debated, it brings together many data sources in one place for easier analysis. The end use of the dashboard is to display university and place data in ways that allow users to gain deeper insights into the relationships between universities and their local places.

Helping universities measure impact

At a time when universities are being asked to do more with less, civic partnerships are not optional, they are critical to social innovation in the education space. Yet 'civic' claims must be backed by evidence, and present actionable steps. The Civic Impact Dashboard therefore offers a timely intervention: a tool that makes visible what has long been invisible - and in doing so, helps institutions make better choices about where to invest their energy for the greatest civic good.

The Civic Impact Dashboard v 2.0 was developed by Adira Andlay, Jessica Redmond, Jenna Fowler, Buket Konuk-Hirst and Dr Al Mathers, with thanks to the user testing group.