Data and expertise
for improving cities

Making data readable – dashboards, information visualisation and accessible evidence

Transcript from webinar video recording

1

00:00:00,600 --> 00:00:02,320

Good morning, everybody.

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00:00:03,280 --> 00:00:07,120

And welcome to the latest in a series of webinars

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00:00:07,160 --> 00:00:12,240

being provided by the Urban Big Data Centre.

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00:00:13,280 --> 00:00:15,120

I expect we'll see a few stragglers.

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00:00:15,160 --> 00:00:17,920

So if you co-hosts can let those people in

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00:00:18,400 --> 00:00:21,400

from the waiting room as we go forward.

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00:00:22,000 --> 00:00:25,080

My name is Andrew McHugh, I'm the Senior Data Science Manager

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00:00:25,120 --> 00:00:27,080

at the Urban Big Data Centre.

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00:00:28,040 --> 00:00:31,560

I'll introduce the proceedings in a moment,

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00:00:31,600 --> 00:00:35,160

but I just wanted to deal with a couple matters of housekeeping first.

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00:00:36,560 --> 00:00:38,800

The first is that this session is being recorded,

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00:00:38,840 --> 00:00:42,320

and it's currently being streamed live on YouTube.

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00:00:42,920 --> 00:00:44,920

Albeit to an unlisted channel.

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00:00:46,080 --> 00:00:50,040

The recording, though, once edited, will be also published

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00:00:50,080 --> 00:00:51,600

on our YouTube channel.

16

00:00:51,640 --> 00:00:55,200

So, if you're uncomfortable with that, please do bear that in mind.

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00:00:58,360 --> 00:01:01,120

The session will be around two hours or so, in total.

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00:01:01,160 --> 00:01:03,400

We've got a number of different speakers planned,

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00:01:04,080 --> 00:01:07,080

as well as some interactive elements later on.

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00:01:09,200 --> 00:01:12,040

For those who are unfamiliar with the Urban Big Data Centre,

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00:01:12,080 --> 00:01:15,320

we are a centre based at the University of Glasgow.

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00:01:15,880 --> 00:01:18,120
We have two principal functions:

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00:01:18,400 --> 00:01:22,040
the first is as a traditional research centre,

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00:01:22,440 --> 00:01:25,560
and our areas of interest and our focuses are on cities,

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00:01:25,600 --> 00:01:29,520
and specifically the use of new and emerging forms of data

26
00:01:30,440 --> 00:01:33,160
to provide new insights and understanding

27
00:01:33,320 --> 00:01:34,800
of how cities function,

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00:01:34,840 --> 00:01:38,280
how their residents behave and interact,

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00:01:38,320 --> 00:01:40,560

and how they flourish and prosper.

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00:01:41,960 --> 00:01:42,960

We also--

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00:01:43,480 --> 00:01:45,800

our second function is we run on behalf of

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00:01:46,120 --> 00:01:47,960

the Economic and Social Research Council,

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00:01:48,000 --> 00:01:49,960

effectively on behalf of the UK government,

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00:01:50,000 --> 00:01:55,000

we operate a national data service where we seek to make data and insights

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00:01:55,040 --> 00:02:00,280

and capacity more accessible to a range of different kinds of audiences

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00:02:00,520 --> 00:02:01,840

mainly within the UK.

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00:02:03,280 --> 00:02:06,720

In this webinar today, "Making Data Readable:

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00:02:06,760 --> 00:02:11,200

Dashboards, Information Visualisation and Accessible Evidence",

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00:02:11,720 --> 00:02:14,880

really aligns both of those functions.

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00:02:16,080 --> 00:02:19,280

It's a conclusion to a small piece of work

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00:02:19,320 --> 00:02:21,640

we've been developing within the Centre,

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00:02:21,960 --> 00:02:25,000

to better understand some of the challenges

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00:02:25,040 --> 00:02:28,840

of having our academic outputs, our analyses and our data

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00:02:29,320 --> 00:02:32,760

being used more regularly and more integrally

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00:02:32,840 --> 00:02:39,160

by public sector, local government, and different parts of government.

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00:02:40,280 --> 00:02:42,520

We've been identifying, or seeking to identify,

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00:02:42,560 --> 00:02:47,520

what are the challenges of adoption of these kinds of academic outputs?

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00:02:48,760 --> 00:02:52,240

For their use within policy work and on operational work

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00:02:52,280 --> 00:02:54,080

within government organizations.

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00:02:54,120 --> 00:02:57,280

And we think one of the main challenges has been the accessibility,

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00:02:58,160 --> 00:03:03,120

the usability of these data sets and outputs and analyses.

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00:03:03,600 --> 00:03:06,040

And we've sought to develop our understanding

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00:03:06,080 --> 00:03:10,000

of how to make data more readable, to make it more accessible.

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00:03:10,040 --> 00:03:13,640

And that has often been achieved through the development of things like

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00:03:13,680 --> 00:03:16,480

dashboards and information visualisation, and so on.

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00:03:16,720 --> 00:03:20,640

So, in the agenda that will follow for the next two hours or so,

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00:03:20,680 --> 00:03:22,440

we'll hear from a number of people.

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00:03:23,120 --> 00:03:24,960

From colleagues within UBDC,

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00:03:25,720 --> 00:03:28,280

as well as just one external speaker now, I'm afraid.

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00:03:28,320 --> 00:03:30,280

We planned to have two, but unfortunately,

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00:03:30,600 --> 00:03:35,560

one of our speakers has fallen ill. So, Stephen Sprott

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00:03:35,600 --> 00:03:38,440

from Glasgow City Council will no longer be able to join us.

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00:03:38,480 --> 00:03:43,360

but we will hear from Jaime Villacampa from Public Health Scotland shortly.

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00:03:45,880 --> 00:03:47,160

After a series of speakers,

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00:03:47,200 --> 00:03:48,520

there will be an opportunity

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00:03:48,560 --> 00:03:50,760

for questions and answers. I would invite people

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00:03:50,800 --> 00:03:55,360

throughout the session to add any questions they have into the chat,

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00:03:55,920 --> 00:04:00,280

and we'll deal with those around 10:45

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00:04:00,320 --> 00:04:03,920

when we'll have heard from our speakers. And we'll deal with them all together.

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00:04:04,400 --> 00:04:06,880

But please do pose questions to any of the speakers

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00:04:06,920 --> 00:04:09,920

or any other discussion points around that.

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00:04:10,640 --> 00:04:14,320

And then, latterly, we'll break into a breakout session,

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00:04:14,880 --> 00:04:20,080

where we'll each be tasked with responding to a specific scenario

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00:04:20,320 --> 00:04:23,800

and trying to come up with some ideas based on the understanding

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00:04:23,840 --> 00:04:26,920

we've hopefully developed throughout the preceding talks.

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00:04:28,920 --> 00:04:33,080

I think that is probably all I need to say at the very start

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00:04:33,120 --> 00:04:34,520

as far as an introduction.

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00:04:35,000 --> 00:04:40,000

I'll now pass over to my colleague, Justine Gangneux,

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00:04:40,080 --> 00:04:42,160

and I'll invite Justine to share her screen.

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00:04:43,600 --> 00:04:46,600

Justine will offer us an initial overview

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00:04:47,040 --> 00:04:48,720

on information on data dashboards

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00:04:48,760 --> 00:04:53,120

just to contextualise the contributions that will follow.

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00:04:53,720 --> 00:04:54,760

Take it away, Justine.

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00:04:55,280 --> 00:04:57,600

Yeah, thank you, Andrew. Thank you very much

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00:04:57,640 --> 00:05:00,600

and welcome, everybody. So my name is Justine

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00:05:00,760 --> 00:05:04,200

and I'm a Research Associate at Urban Big Data Centre.

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00:05:04,480 --> 00:05:07,560

And today I'm going to provide a very brief overview

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00:05:07,600 --> 00:05:10,880

of what dashboards are, what are the different types,

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00:05:10,920 --> 00:05:13,800

and give you some examples of dashboards.

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00:05:18,560 --> 00:05:23,760

So, here we'll start with a definition, a very classic thing to do.

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00:05:24,000 --> 00:05:27,440

The first one is kind of an older definition

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00:05:27,480 --> 00:05:31,360

that was created in 2006,

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00:05:31,400 --> 00:05:35,400

and it sort of takes from the idea of car dashboard.

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00:05:35,440 --> 00:05:39,000

This idea of a visual display, where the most important information

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00:05:39,360 --> 00:05:41,440

needed to achieve one or more objectives

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00:05:41,480 --> 00:05:44,680

is consolidated and arranged on a single screen.

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00:05:44,720 --> 00:05:47,440

So here, we can really see the idea of car dashboards

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00:05:47,480 --> 00:05:50,680

with different visual displays there.

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00:05:51,600 --> 00:05:54,800

And everything needed to be monitored at one glance,

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00:05:55,000 --> 00:05:57,240

and more recently do a thing with the emergence

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00:05:57,280 --> 00:05:59,360

of different types of dashboards,

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00:05:59,400 --> 00:06:02,160

this definition has been kind of elaborated on,

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00:06:02,960 --> 00:06:06,920

and dashboards, single screen dashboards, have become more like platforms.

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00:06:06,960 --> 00:06:10,480

And here's the second definition by Kitchin and McArdle

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00:06:11,640 --> 00:06:13,520

it's specifically around urban dashboard,

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00:06:13,560 --> 00:06:16,080

but that can be applied across the board,

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00:06:16,280 --> 00:06:18,440

and again, if you're interested in dashboard,

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00:06:18,480 --> 00:06:21,680

I would really recommend the work of Kitchin and McArdle,

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00:06:21,720 --> 00:06:23,960

and I've provided references at the end

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00:06:24,520 --> 00:06:25,960

so you can look into that

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00:06:26,000 --> 00:06:27,920

in further detail if you're interested.

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00:06:28,000 --> 00:06:32,800

The different dashboards are platforms which use visual analytics

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00:06:32,960 --> 00:06:35,520

to display information about the performance,

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00:06:35,600 --> 00:06:38,280

structure, patterns, and trends of cities.

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00:06:38,320 --> 00:06:42,640
And here I have added "(or subject at hand".

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00:06:43,400 --> 00:06:47,040
So, the visualisation can include gauges, traffic light colours,

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00:06:47,080 --> 00:06:50,040
meters, arrows, bars charts, graphs,

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00:06:50,160 --> 00:06:54,400
but also, more recently, interactive visualisation

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00:06:54,800 --> 00:06:57,480
such as maps, heatmaps and that has been

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00:06:58,320 --> 00:07:02,080
very much emerging at the same time as the GIS technology

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00:07:02,600 --> 00:07:06,960
and opening up of new types of data collected from sensors,

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00:07:07,000 --> 00:07:11,240

or connected infrastructure that gives you more real-time data.

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00:07:12,160 --> 00:07:15,320

In the past two decades, I'm sure you've seen,

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00:07:15,360 --> 00:07:16,680

many, many dashboards,

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00:07:16,800 --> 00:07:18,840

and there's been an explosion of dashboards

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00:07:18,880 --> 00:07:22,240

publicly accessible but also within organisations.

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00:07:22,400 --> 00:07:27,000

And as I said, that's been combined with data being more accessible,

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00:07:27,040 --> 00:07:29,320

maybe an increase in collection of data,

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00:07:29,360 --> 00:07:33,800

and also the maturing of a field of business analytics

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00:07:34,120 --> 00:07:38,440

where the data is used on a more daily basis

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00:07:38,480 --> 00:07:41,360

to make decisions, or trying to make decisions,

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00:07:41,440 --> 00:07:43,240

and from policy making.

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00:07:43,680 --> 00:07:47,080

And here, you can see vendors, such as Tableau or Microsoft,

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00:07:47,120 --> 00:07:50,320

that have released a range of products,

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00:07:50,360 --> 00:07:54,560

that offer business analytics tools among which dashboards,

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00:07:54,600 --> 00:07:57,880

and I'm sure you're aware of, for example, Power BI

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00:07:57,960 --> 00:07:59,920

that is widely used in organisations.

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00:08:01,920 --> 00:08:06,280

So, to move on, I just wanted to flag up

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00:08:06,320 --> 00:08:09,480

the multiplicity of dashboards

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00:08:09,760 --> 00:08:13,360

and also the various purposes for which you can use them.

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00:08:13,640 --> 00:08:17,640

And this is just some of the terminology around dashboards

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00:08:17,680 --> 00:08:22,600

that's been put forward by Sarikaya et al in 2019,

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00:08:22,840 --> 00:08:25,320

and you will quickly become aware

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00:08:25,360 --> 00:08:28,840

that there is a lot of terminology around dashboards.

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00:08:29,000 --> 00:08:33,440

I will just flag up three of the main key terms here.

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00:08:33,760 --> 00:08:37,440

The first one is what we call operational dashboards,

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00:08:37,800 --> 00:08:40,480

and their purpose is to control and monitor

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00:08:40,520 --> 00:08:43,200

the current activity or performance.

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00:08:43,240 --> 00:08:48,440

So that's really a short time frame, and shows operational processes.

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00:08:49,000 --> 00:08:54,120

For instance, you can think of customer contacts dashboards.

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00:08:54,800 --> 00:08:57,600

And generally, they have a really high level of granularity

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00:08:57,640 --> 00:08:59,960

around this specific topic they are looking at,

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00:09:00,000 --> 00:09:03,920

and using or trying to use as near as possible real-time data,

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00:09:03,960 --> 00:09:07,440

so it can inform and support decision-making

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00:09:07,480 --> 00:09:10,000

around operational needs.

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00:09:10,040 --> 00:09:12,200

So it's really immediate decision-making.

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00:09:13,080 --> 00:09:17,320

The second type is strategic dashboards.

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00:09:17,560 --> 00:09:22,720

So here, the purpose is to evaluate and manage strategic objectives.

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00:09:23,040 --> 00:09:27,080

And sometimes, they're also used for benchmarking services

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00:09:27,120 --> 00:09:29,360

or policy against targets,

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00:09:29,400 --> 00:09:32,680

and I'm sure you'll be aware of key performance indicators.

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00:09:32,720 --> 00:09:36,800

And in that case, they might also be known as performance dashboards.

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00:09:37,520 --> 00:09:40,200

So here, the level of data is much more high-level.

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00:09:40,560 --> 00:09:46,280

Often you have data throughout time, so you can allow comparisons over time.

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00:09:46,440 --> 00:09:52,120

And that's to help and to support long-term decision-making,

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00:09:53,240 --> 00:09:58,880

and often these dashboards focus on one specific policy area.

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00:09:59,120 --> 00:10:05,680

And are simple decluttered information and do not require specific data skills.

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00:10:05,960 --> 00:10:11,440

In organisations, they're often used by senior level management decision-makers.

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00:10:12,040 --> 00:10:16,200

And that's by contrast with more analytical dashboards.

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00:10:16,680 --> 00:10:19,760

And obviously these definitions are kind of overlapping,

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00:10:20,120 --> 00:10:24,320

but analytical dashboards-- the purpose is to gain insights

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00:10:24,600 --> 00:10:28,160

from a variety of data sets and sources.

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00:10:28,400 --> 00:10:33,640

Basically, they are more complex and contain a large amount of data.

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00:10:33,880 --> 00:10:37,720

And here, the purpose is really to gain insight to reading this data.

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00:10:38,440 --> 00:10:43,000

They are allowed to drill into the data, they use complex analytical models,

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00:10:43,600 --> 00:10:45,720

they might use predictive modelling, etc.,

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00:10:45,760 --> 00:10:50,640

And they are targeted at more business analysts and experts.

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00:10:50,760 --> 00:10:53,960

So here, you do need for this type of dashboard,

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00:10:54,520 --> 00:10:57,560

more advanced data skills

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00:10:57,600 --> 00:11:00,680

and the correct queries options and functionalities.

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00:11:01,200 --> 00:11:04,120

Other terminology includes tactical dashboard,

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00:11:04,360 --> 00:11:07,120

urban dashboard, so it's really not an exact science.

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00:11:07,240 --> 00:11:11,440

It's quite interesting to look at what type fit what purposes

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00:11:11,480 --> 00:11:15,760

when you're starting thinking about designing a dashboard. And finally,

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00:11:15,800 --> 00:11:19,840

a last element around distinguishing between different dashboards

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00:11:20,160 --> 00:11:21,880

is around accessibility.

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00:11:22,440 --> 00:11:26,640

So dashboards are more or less accessible or open to the public,

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00:11:27,040 --> 00:11:31,680

so that varies accordingly to what the audience of the dashboard is,

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00:11:31,880 --> 00:11:35,360

and the purpose of the dashboard. So, for example, some dashboards

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00:11:35,720 --> 00:11:37,440

might be entirely private.

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00:11:38,160 --> 00:11:42,120

So thinking about your dashboard or activity log on Strava, for example,

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00:11:42,680 --> 00:11:46,280

another one might be only accessible within an organisation

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00:11:46,320 --> 00:11:49,000

or within a department within an organisation,

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00:11:49,040 --> 00:11:51,760

so more like organisational internal dashboards,

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00:11:52,040 --> 00:11:54,720

and other ones are publicly accessible.

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00:11:54,880 --> 00:11:56,680

For example, urban dashboards.

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00:11:56,720 --> 00:12:00,360

And sometimes, the later can be also embedded

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00:12:00,400 --> 00:12:04,000

within an open data portals or data stores.

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00:12:04,240 --> 00:12:07,880

That is something that has started emerging here in the UK.

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00:12:07,920 --> 00:12:10,760

You might have heard of the London Datastore,

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00:12:10,800 --> 00:12:16,040

but you also have open data portal here in Glasgow, or in Bristol, and so on.

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00:12:16,960 --> 00:12:21,360

So now, I'm just going to provide you with a few examples of dashboards

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00:12:21,400 --> 00:12:23,960

and hopefully that will trigger some discussion

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00:12:24,000 --> 00:12:28,720

around the different characteristics and performances.

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00:12:29,480 --> 00:12:33,680

The first one is the Dublin Dashboard here.

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00:12:33,760 --> 00:12:37,600

And I think it's a very good example of an urban dashboard,

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00:12:37,640 --> 00:12:41,440

and you have many of them in the UK, or across the world actually.

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00:12:42,000 --> 00:12:46,960

It's been revamped recently, so the design has been changed.

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00:12:47,000 --> 00:12:51,280

But that's the dashboard that's been existing for the past seven years.

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00:12:51,680 --> 00:12:57,600

And it contains information about Dublin and is clustered around key themes.

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00:12:57,800 --> 00:13:02,640

So here, transport, environment, housing, economy, education, and demographics.

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00:13:02,840 --> 00:13:07,640

And this is often the case when you look at different urban dashboards,

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00:13:07,680 --> 00:13:11,400

is you have different clusters that relate to different policy domains.

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00:13:12,040 --> 00:13:17,440

And you can find near real-time data indicators on some of these themes

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00:13:17,480 --> 00:13:22,480

and more statistical data on others of this theme.

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00:13:23,080 --> 00:13:26,040

This is a picture here on the right of one of the dashboards

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00:13:26,120 --> 00:13:29,160

and I've provided the link. This dashboard is quite interesting

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00:13:29,200 --> 00:13:34,600

because it has been a partnership

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00:13:34,640 --> 00:13:38,920

between the Dublin City Council and the University of Dublin,

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00:13:39,000 --> 00:13:42,640

and some scholars have actually worked and studied it,

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00:13:42,680 --> 00:13:45,040

and studied the process of development of this dashboard

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00:13:45,080 --> 00:13:48,120

and we have quite a lot of information about this dashboard.

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00:13:48,160 --> 00:13:53,760

So here, I just put the data that is used and put to feed the dashboard.

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00:13:53,800 --> 00:13:56,320

So you can see an interesting theme emerging,

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00:13:56,360 --> 00:14:00,440

so it's different data providers. So, from the public sector

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00:14:00,480 --> 00:14:04,320

like the Dublin City Council, but also from the private sector

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00:14:04,360 --> 00:14:07,560

like JC Decaux for the Dublin Bikes, for example,

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00:14:07,600 --> 00:14:09,720

a variety of data providers,

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00:14:09,880 --> 00:14:12,480

but also a variety of type of data,

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00:14:12,520 --> 00:14:14,080

So it's real-time data,

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00:14:14,520 --> 00:14:17,280

so, what you can see on the left, and non real-time data.

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00:14:17,320 --> 00:14:22,080

So more statistical data that is either monthly or annually.

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00:14:22,120 --> 00:14:24,360

So it's really different temporalities as well.

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00:14:24,640 --> 00:14:29,160

And finally, here we also point out the different data formats.

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00:14:29,200 --> 00:14:35,000

You have formats that are more like pdf or csv format

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00:14:35,040 --> 00:14:40,800

but also data coming from APIs, or data being presented in json as well.

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00:14:41,000 --> 00:14:46,280

So it's really a variety of provider formats and types of data,

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00:14:46,320 --> 00:14:48,320

which I think is important to think about

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00:14:48,360 --> 00:14:52,640

when starting looking at designing and creating a dashboard.

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00:14:53,920 --> 00:14:56,800

Another example, and I will go a bit faster here,

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00:14:56,840 --> 00:14:59,760

is the Bristol Air Quality Dashboard.

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00:15:00,080 --> 00:15:04,880

and this one is connected to the open data portal of the city

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00:15:04,920 --> 00:15:06,400

that I mentioned earlier.

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00:15:06,440 --> 00:15:10,600

So it's real-time data on air quality in different locations,

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00:15:10,640 --> 00:15:13,880

taken from sensors that are plugged around the city.

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00:15:13,920 --> 00:15:19,920

You can see on the left here, you have a performance visualisation.

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00:15:19,960 --> 00:15:23,280

But when they slow it, the low pollution is in green,

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00:15:23,560 --> 00:15:26,760

then middle pollution orange, and high pollution red, and so on.

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00:15:26,880 --> 00:15:29,720

And you also have a spatial representation

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00:15:29,760 --> 00:15:31,160

of where the sensors are

251

00:15:31,200 --> 00:15:35,800

and the performance against targeted specific pollutants.

252

00:15:35,840 --> 00:15:38,160

Here, we can see on the right.

253

00:15:38,200 --> 00:15:41,440

It's kind of an example of a performance dashboard

254

00:15:41,520 --> 00:15:44,800

combined with kind of geospatial representation here.

255

00:15:46,320 --> 00:15:49,760

The third example I wanted to highlight,

256

00:15:49,800 --> 00:15:52,880

is the Scottish Tech Army COVID-19 dashboard.

257

00:15:53,000 --> 00:15:56,640

It's one among many, many examples of COVID-19 dashboards.

258

00:15:56,680 --> 00:16:00,560

I'm sure you've seen some of them in the past months.

259

00:16:00,880 --> 00:16:03,440

So this one has been created by a volunteer

260

00:16:03,480 --> 00:16:05,800

from the tech sector in Scotland,

261

00:16:06,160 --> 00:16:10,000

and it's drawing on available data from various sources.

262

00:16:10,200 --> 00:16:13,760

And here the-- so the functionalities are around,

263

00:16:13,800 --> 00:16:17,800

you can isolate cases to either cases or number of deaths,

264

00:16:17,840 --> 00:16:21,800

and then you can look at that in specific areas,

265

00:16:21,840 --> 00:16:23,880

either health board or council area.

266

00:16:23,920 --> 00:16:26,000

And you also have a daily count,

267

00:16:26,040 --> 00:16:27,920

but you can compare over time.

268

00:16:27,960 --> 00:16:30,640

So that provides various functionalities

269

00:16:30,960 --> 00:16:37,840

Kind of diving deep down

into the COVID-19 data in Scotland.

270

00:16:38,520 --> 00:16:44,080

Again, I've provided the link, feel free to look at it at your leisure.

271

00:16:45,160 --> 00:16:48,880

The next example I wanted to highlight this morning,

272

00:16:48,920 --> 00:16:51,720

is the Edmonton Citizen dashboard.

273

00:16:51,760 --> 00:16:54,120

Edmonton is a city in Canada,

274

00:16:54,160 --> 00:16:57,200

and they have provided here, we have an example

275

00:16:57,240 --> 00:17:02,440

of performance dashboard and they have

276

00:17:02,680 --> 00:17:05,080

centred this dashboard around policy domain.

277

00:17:05,120 --> 00:17:08,080

So again, transportation, liveability and environment,

278

00:17:08,120 --> 00:17:09,560

and when you click on the tabs

279

00:17:09,600 --> 00:17:12,960

you can really see a series of policy targets,

280

00:17:13,280 --> 00:17:16,040

and whether or not these targets have been met,

281

00:17:16,080 --> 00:17:19,920

again with the colour-coding, traffic light colour-coding.

282

00:17:20,000 --> 00:17:22,920

So red, orange, and green.

283

00:17:23,400 --> 00:17:27,000

What's interesting here, is also something to notice.

284

00:17:27,040 --> 00:17:30,880

The data is obviously not real-time,

285

00:17:30,920 --> 00:17:34,880

and it kind of reflects the pace of policy making,

286

00:17:34,920 --> 00:17:37,040

and maybe evaluation of policy as well.

287

00:17:37,080 --> 00:17:40,600

So not all dashboards are actually real-time.

288

00:17:42,120 --> 00:17:45,720

And the final example I wanted to flag up this morning,

289

00:17:45,760 --> 00:17:49,080

and again, there are many, many dashboards that you can look at.

290

00:17:49,440 --> 00:17:54,120

But this one is the Uber Movement, Movement City Dashboards.

291

00:17:54,600 --> 00:17:58,880

So basically, I thought it was interesting to bring up examples of a dashboard

292

00:17:58,920 --> 00:18:01,840

-as being put forward using--

-Sorry to interrupt,

293

00:18:01,880 --> 00:18:04,960

Justine, I apologise, the slides aren't progressing.

294

00:18:05,000 --> 00:18:07,520

I'm not sure if they are on your screen, but on the Zoom--

295

00:18:07,560 --> 00:18:09,520

They are on my screen. Sorry.

296

00:18:10,400 --> 00:18:13,280

So maybe I should stop sharing and then start sharing again.

297

00:18:14,560 --> 00:18:16,280

-Thanks.

-That's fine.

298

00:18:16,840 --> 00:18:19,680

They were progressing on the screen. Can you see them now?

299

00:18:21,720 --> 00:18:23,920

Yeah, we see the Uber Movement City Dashboard.

300

00:18:24,680 --> 00:18:27,320

Perfect, so we're just going to start again from there.

301

00:18:27,880 --> 00:18:29,520

-Yeah?

-Great, thanks.

302

00:18:30,960 --> 00:18:33,080

And I will circulate the slides

303

00:18:33,120 --> 00:18:35,560

so people can also click on the different links.

304

00:18:36,080 --> 00:18:39,680

So that's the last one I wanted to show this morning.

305

00:18:39,720 --> 00:18:43,160

And I was saying it's interesting to see how private sector data

306

00:18:43,200 --> 00:18:45,520

can also be utilised in that way,

307

00:18:45,560 --> 00:18:49,000

and there's a huge potential around private sector data,

308

00:18:49,040 --> 00:18:51,360

but often it is not accessible to the public,

309

00:18:51,400 --> 00:18:53,640

or it requires licensing,

310

00:18:53,920 --> 00:18:56,600

and I think we've seen the potential it can have

311

00:18:56,640 --> 00:19:00,960

with Google Mobility Dashboard, for example, in a context of COVID-19.

312

00:19:01,000 --> 00:19:04,200

So it's quite positive to see that some of this data

313

00:19:04,240 --> 00:19:07,440

is made somehow accessible for the public.

314

00:19:07,480 --> 00:19:12,760

Here you can basically calculate travel times in different cities,

315

00:19:12,800 --> 00:19:15,880

so I've chosen Paris, obviously.

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00:19:17,240 --> 00:19:20,600

From the origin and destination zones,

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00:19:20,640 --> 00:19:23,680

and it kind of gives you a calculated average traveling time

318

00:19:23,720 --> 00:19:25,960

at the time of the day.

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00:19:26,400 --> 00:19:31,600

It also gives you traveling times by periods, so morning peaks

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00:19:31,640 --> 00:19:34,760

or afternoon peaks, and so on.

321

00:19:34,800 --> 00:19:38,520

So it's kind of an interesting way of looking at mobility

322

00:19:38,560 --> 00:19:40,120

using the urban data.

323

00:19:41,920 --> 00:19:46,920

Finally, just some food for thought when we're thinking about dashboards

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00:19:46,960 --> 00:19:50,400

and maybe using dashboards and designing dashboards,

325

00:19:50,440 --> 00:19:55,520

The first thing to think about is identifying the targeted audience

326

00:19:55,560 --> 00:19:57,960

or audiences and what their needs are.

327

00:19:58,000 --> 00:20:00,000

so we are sure that we can define

328

00:20:00,200 --> 00:20:03,360

the scope and the purpose of the dashboard, and maybe looking at

329

00:20:03,400 --> 00:20:06,560

the different types and what level of granularity you need

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00:20:06,960 --> 00:20:10,320

to answer your audience needs, what questions do they have,

331

00:20:10,360 --> 00:20:13,120

and what level of granularity do they need.

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00:20:13,840 --> 00:20:17,480

Then, obviously you have some issues to think about

333

00:20:17,520 --> 00:20:19,120

around the sourcing of the data,

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00:20:19,160 --> 00:20:22,120

and I think the Dublin Dashboard example shows

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00:20:22,160 --> 00:20:24,840

that there are various sources of data that you can use,

336

00:20:24,880 --> 00:20:28,520

but you really need to think about the sustainability of your source.

337

00:20:28,560 --> 00:20:32,280

Is it going to be continuous and be usable over time?

338

00:20:32,560 --> 00:20:36,120

Thinking about data quality and consistency,

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00:20:36,760 --> 00:20:38,920

as well as, as I said, licensing.

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00:20:40,080 --> 00:20:44,520

Another area of things that you need to think about

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00:20:44,560 --> 00:20:49,240

is around visualisation and Zsanett is going to tell us more about that.

342

00:20:49,280 --> 00:20:52,920

But there's been an emerging field of research

343

00:20:52,960 --> 00:20:56,520

around the political representations when it comes to dashboards,

344

00:20:56,560 --> 00:21:00,400

and what you present and what you omit to represent,

345

00:21:00,440 --> 00:21:02,840

and how to also contextualise that data.

346

00:21:02,880 --> 00:21:05,400

So it's really something to be aware of.

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00:21:05,440 --> 00:21:08,080

That representing data is not necessarily neutral,

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00:21:08,120 --> 00:21:10,960

and that really needs to feed into your user needs

349

00:21:11,000 --> 00:21:13,200

but also the scope of the dashboard.

350

00:21:13,720 --> 00:21:17,440

And finally, to more technical things to think about,

351

00:21:17,520 --> 00:21:20,120

so the usability accessibility of the dashboard,

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00:21:20,240 --> 00:21:22,640

so thinking about the digital literacy and skills

353

00:21:22,680 --> 00:21:24,360

of your targeted audiences

354

00:21:24,400 --> 00:21:27,800

is very important, as well as the accessibility requirements

355

00:21:28,600 --> 00:21:29,720

more generally.

356

00:21:29,920 --> 00:21:31,920

And finally, the technical infrastructure.

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00:21:31,960 --> 00:21:35,320

Which platform do you want to use? Do you want to code it from scratch,

358

00:21:35,400 --> 00:21:37,960

or do you want to use specific software and tools

359

00:21:38,000 --> 00:21:40,840

that can create a dashboard knowing that then

360

00:21:40,920 --> 00:21:43,000

you would be restricted with that platform?

361

00:21:43,880 --> 00:21:46,800

Where do you want to host it?

How do you store the data?

362

00:21:46,840 --> 00:21:49,920

And how do you ensure the data is secure?

363

00:21:51,240 --> 00:21:52,560

So, that is me,

364

00:21:52,600 --> 00:21:55,360

and these are some of the references I used, as I said,

365

00:21:55,440 --> 00:21:59,720

Rob Kitchin is quite a big name if you want to dive more

366

00:21:59,760 --> 00:22:04,120

into the field of dashboard and urban data.

367

00:22:04,160 --> 00:22:06,760

So I have provided some examples here for you,

368

00:22:06,800 --> 00:22:09,200

and I will circulate the slides.

369

00:22:11,440 --> 00:22:14,240

Many thanks, Justine, and yeah, that's a good point.

370

00:22:14,280 --> 00:22:16,120

we'll make sure that all of the slides

371

00:22:16,160 --> 00:22:18,400

and all of the materials that we cover today

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00:22:18,440 --> 00:22:22,040

will be circulated to all the registered attendees.

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00:22:22,080 --> 00:22:24,880

As I said, we'll store up questions,

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00:22:24,920 --> 00:22:26,600

I don't see any in the chat at the moment

375

00:22:26,640 --> 00:22:28,560

and I should invite those watching on YouTube

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00:22:28,600 --> 00:22:32,680

to allow me to put their questions within the live chat there

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00:22:32,720 --> 00:22:35,880

that's also being monitored, and we'll come to those in due course.

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00:22:35,920 --> 00:22:39,800

But we'll turn on now to the next agenda item today,

379

00:22:39,840 --> 00:22:42,360

which as I said earlier, It was originally planned

380

00:22:42,400 --> 00:22:44,000

to be two external speakers and unfortunately,

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00:22:44,040 --> 00:22:45,240

we're down to just one.

382

00:22:46,200 --> 00:22:48,320

What we'd hoped to achieve in this section

383

00:22:48,360 --> 00:22:52,960

was to offer a look at a couple of mini case studies

384

00:22:53,000 --> 00:22:56,520

to understand how government and public sector organisations

385
00:22:56,560 --> 00:23:00,040
use dashboards already, and what are some of the motivations

386
00:23:00,080 --> 00:23:01,640
and what are some of the needs,

387
00:23:01,680 --> 00:23:04,680
and how effectively are those needs addressed,

388
00:23:04,720 --> 00:23:07,120
and can they be addressed with the development

389
00:23:07,160 --> 00:23:08,640
of these kinds of technologies?

390
00:23:10,600 --> 00:23:14,000
In addition to our first external speaker,

391
00:23:14,040 --> 00:23:16,200
Jaime Villacampa, from Public Health Scotland,

392

00:23:16,240 --> 00:23:19,920

we'll also hear from subsequently from our own colleague in UDBC,

393

00:23:19,960 --> 00:23:24,000

Zsanett Bahor. She'll offer another bit of insight

394

00:23:24,120 --> 00:23:26,360

about a dashboard we've jointly developed

395

00:23:26,880 --> 00:23:30,280

with Glasgow City region, so, we'll get another external perspective,

396

00:23:30,320 --> 00:23:34,240

albeit from a UBDC voice.

397

00:23:34,440 --> 00:23:38,000

But I will hand over now to Jaime Villacampa.

398

00:23:38,520 --> 00:23:44,400

Jaime is the Principal Information Analyst at Public Health Scotland.

399

00:23:44,640 --> 00:23:46,520

And what he's going to be talking about,

400

00:23:46,560 --> 00:23:50,400

is the-- I think it's the ScotPHO online profiles tool app,

401

00:23:50,960 --> 00:23:52,760

which gives an overview of health

402

00:23:52,800 --> 00:23:55,160

and it's wider determinants at a local level.

403

00:23:55,200 --> 00:23:58,520

So I think, Jaime, you should be set to share your screen.

404

00:23:58,560 --> 00:24:02,080

So, feel free to un-mute and do so, and take it away, thanks.

405

00:24:02,120 --> 00:24:03,800

Cool, thank you very much, Andrew.

406

00:24:04,160 --> 00:24:07,720

So, yes, Andrew was saying I work in Public Health Scotland,

407

00:24:07,760 --> 00:24:11,080

and I work in the Scottish Public Health Observatory team,

408

00:24:11,120 --> 00:24:13,400

We call it ScotPHO,

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00:24:13,440 --> 00:24:15,680

so I'll refer it as ScotPHO.

410

00:24:15,720 --> 00:24:19,600

So I'm just gonna share my screen.

411

00:24:20,680 --> 00:24:22,760

And come to the first page.

412

00:24:27,000 --> 00:24:29,400

Okay, so I hope everyone can see this.

413

00:24:31,680 --> 00:24:36,160

I'm gonna start explaining a little bit about what these profile tools are.

414

00:24:37,520 --> 00:24:41,160

We have over two hundred indicators of public health

415

00:24:42,080 --> 00:24:44,720

and it's wider determinants, so we look at things like:

416

00:24:44,760 --> 00:24:49,240

health outcomes, that could be like people hospitalised by asthma,

417

00:24:49,600 --> 00:24:50,800

or...

418

00:24:51,800 --> 00:24:56,680

people dying prematurely, by different reasons.

419

00:24:56,720 --> 00:24:59,240

But we also look at the wider determinants of health.

420

00:24:59,280 --> 00:25:02,960

So we look at education, housing, economy,

421

00:25:03,000 --> 00:25:06,760

and different measures of these things

422

00:25:06,800 --> 00:25:09,160

to try to give a better overview.

423

00:25:09,200 --> 00:25:13,360

of what is going on in terms of health and wellbeing in a community.

424

00:25:14,960 --> 00:25:17,880

All of these indicators are grouped by themes and topics,

425

00:25:17,920 --> 00:25:20,760

which is what we call a profile. We have profiles on

426

00:25:20,800 --> 00:25:23,240

health and wellbeing, which is like a summary

427

00:25:23,280 --> 00:25:26,560

but we have some focused on children and young people,

428

00:25:26,760 --> 00:25:30,880

on drugs, on alcohol, on a few different topics.

429

00:25:32,960 --> 00:25:35,920

Our tool is used by many different types of users.

430

00:25:35,960 --> 00:25:39,040

So, it's heavily used by national and local government,

431

00:25:39,080 --> 00:25:42,440

and this includes people in policy

432

00:25:42,480 --> 00:25:46,720

posts, but also people in more analytical posts,

433

00:25:46,920 --> 00:25:51,840

so it's quite a big range of technical and data savviness,

434

00:25:52,680 --> 00:25:59,280

in our users. It's used a lot by people in local government,

435

00:25:59,320 --> 00:26:01,200

as I said, councils and partnerships,

436

00:26:01,240 --> 00:26:02,520

also health boards,

437

00:26:02,960 --> 00:26:05,840

and then it's generally used by the general public

438

00:26:05,880 --> 00:26:09,080

as all of our information is publicly available.

439

00:26:09,160 --> 00:26:11,960

That includes academia, so a lot of researchers use it,

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00:26:12,080 --> 00:26:16,000

and the students in different degrees of public health

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00:26:17,400 --> 00:26:18,800

and information in general.

442

00:26:20,280 --> 00:26:23,120

And because of that, it also has a lot of different uses.

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00:26:23,480 --> 00:26:27,200

So there are people who use it for benchmarking

444

00:26:27,320 --> 00:26:31,280

between different areas and for their end-of-year reports

445

00:26:31,320 --> 00:26:32,560

and that kind of thing.

446

00:26:33,040 --> 00:26:34,480

Also for improvement.

447

00:26:36,280 --> 00:26:41,640

It is quite used recently for teaching in universities,

448

00:26:41,840 --> 00:26:42,880

for research,

449

00:26:43,360 --> 00:26:45,720

a lot of our users,

450

00:26:45,760 --> 00:26:48,680

this is one of the few places where they can find information,

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00:26:48,720 --> 00:26:51,000

so they use it just as an open-data platform.

452

00:26:51,040 --> 00:26:53,920

We've got an area where they can just download the data.

453

00:26:54,120 --> 00:26:56,160

They just go there, and pick it from there.

454

00:26:57,680 --> 00:26:58,680

So...

455

00:26:59,720 --> 00:27:00,960

why we created it?

456

00:27:01,200 --> 00:27:04,360

So there was actually a need for local data

457

00:27:04,400 --> 00:27:07,240

that was not published in official publications

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00:27:07,280 --> 00:27:09,800

that Public Health Scotland or Scottish Government,

459

00:27:09,840 --> 00:27:11,520

or other organisations published.

460

00:27:16,400 --> 00:27:20,720

That type of local data is when you start to go down into

461

00:27:21,080 --> 00:27:24,240

community level. So if you go down into intermediate zone,

462

00:27:24,280 --> 00:27:25,440

or

463

00:27:25,960 --> 00:27:29,000

localities data for the different councils.

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00:27:32,200 --> 00:27:37,600

Also, a lot of this information is, or was [INAUDIBLE] as

465

00:27:37,640 --> 00:27:39,320

very highly compartmentalized.

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00:27:39,720 --> 00:27:43,520

You go to one organisation and then you find

467

00:27:43,560 --> 00:27:46,400

the data that that organisation published and nothing else.

468

00:27:48,040 --> 00:27:52,760

Usually, it's one publication where you can find data,

469

00:27:53,440 --> 00:27:56,800

on hospital activity, but it's not linked to any of the other

470

00:27:57,640 --> 00:28:01,680

factors and measures that affect this hospital activity.

471

00:28:01,880 --> 00:28:05,040

So we wanted to create something where users could

472

00:28:05,440 --> 00:28:09,360

get a good summary of the health and wellbeing for a particular area.

473

00:28:11,400 --> 00:28:13,960

And we used to have a dashboard in the past

474

00:28:15,080 --> 00:28:18,240

that was built in Javascript, by IT,

475

00:28:18,480 --> 00:28:20,320

and we were not the developers and

476

00:28:20,360 --> 00:28:23,480

we had to request any sort of modifications to them,

477

00:28:23,720 --> 00:28:28,960

and then we move to R Shiny and we became the developers

478

00:28:29,080 --> 00:28:32,320

and that helped us to be very flexible and be able to

479

00:28:32,920 --> 00:28:34,480

meet the demands of our users

480

00:28:34,520 --> 00:28:38,440

in terms of what geography levels they wanted to show,

481

00:28:38,480 --> 00:28:41,760

what type of information, new indicators, new measures.

482

00:28:46,000 --> 00:28:51,560

I decided to not a live demo because it was quite a short time presentation,

483

00:28:51,760 --> 00:28:52,920

and this is much better.

484

00:28:53,680 --> 00:28:56,560

So, this is the landing page of the profiles tool.

485

00:28:57,160 --> 00:29:00,400

So there are a number of different tabs.

486

00:29:02,200 --> 00:29:03,320

We've tried to

487

00:29:04,000 --> 00:29:08,480

make sure that the needs of all of the different types of our users are met

488

00:29:08,520 --> 00:29:09,680

in the different tabs.

489

00:29:10,600 --> 00:29:14,040

A lot of our users just want to have a quick overview of the data

490

00:29:15,400 --> 00:29:18,440

for an area. And that is where we have a profile summary

491

00:29:19,040 --> 00:29:20,800

where they can just obtain that.

492

00:29:21,640 --> 00:29:23,760

Some of our users only want the data,

493

00:29:24,160 --> 00:29:27,600

and they're just going to reuse it in their own way, for their own areas

494

00:29:27,640 --> 00:29:28,840

and their own purposes.

495

00:29:28,880 --> 00:29:31,960

And that's where we get a different tab for the data.

496

00:29:33,320 --> 00:29:34,520

And then,

497

00:29:35,200 --> 00:29:38,360

a lot of users are only interested in a particular method, for example,

498

00:29:38,400 --> 00:29:41,480

we work a lot with alcohol and drug partnerships,

499

00:29:41,800 --> 00:29:45,040

and they might be interested in the alcohol-related admissions

500

00:29:45,080 --> 00:29:49,880

for the area or the set of communities where they work with.

501

00:29:50,200 --> 00:29:53,920

So we have provided a number of different breakdowns

502

00:29:54,000 --> 00:29:55,920

to look at different measures

503

00:29:57,360 --> 00:30:00,560

in more detail, so there's one for looking at changes over time,

504

00:30:00,960 --> 00:30:05,440

there's one for looking at the comparison between areas,

505

00:30:05,480 --> 00:30:09,640

and then there's one where we look at the health inequalities,

506

00:30:09,680 --> 00:30:13,360

so how socioeconomic deprivation affects that measure.

507

00:30:13,960 --> 00:30:17,720

This is something we are putting quite a lot of effort in the recent time.

508

00:30:17,960 --> 00:30:21,520

Just as it's a very important breakdown of the data.

509
00:30:25,280 --> 00:30:30,600
This is what they used to see when they click on the summary tab.

510
00:30:31,440 --> 00:30:37,960
So the colours indicate if a indicator is doing better,

511
00:30:38,000 --> 00:30:41,240
worse, or similarly to a comparator.

512
00:30:42,760 --> 00:30:45,920
At the top, they can select the different geography level,

513
00:30:45,960 --> 00:30:50,200
and we go from the Scotland level, up to the intermediate zone.

514
00:30:50,960 --> 00:30:53,400
which is a very small geographic level

515
00:30:53,440 --> 00:30:58,040
that's-- it's the closest we can get to a neighbourhood concept.

516

00:30:59,280 --> 00:31:01,560

And then they can select a profile,

517

00:31:01,800 --> 00:31:03,880

and in this case it's health and wellbeing.

518

00:31:04,120 --> 00:31:06,320

And then they can select a comparison.

519

00:31:06,800 --> 00:31:10,520

So they can compare against in this case, this is Scotland,

520

00:31:10,560 --> 00:31:12,840

but they could be comparing an intermediate zone

521

00:31:12,880 --> 00:31:16,400

against the council area where this intermediate zone is.

522

00:31:17,720 --> 00:31:21,840

but we want to allow users to not only do benchmarking,

523

00:31:21,880 --> 00:31:23,720

which is very...

524

00:31:25,520 --> 00:31:29,280

let's say, pointless, sometimes, it's who's doing better or worse.

525

00:31:29,320 --> 00:31:30,800

But there's a lot of factors

526

00:31:30,880 --> 00:31:34,760

and local... in the local trends

527

00:31:34,960 --> 00:31:36,320

that need to be considered.

528

00:31:36,480 --> 00:31:42,040

But also, how they're doing over time, so they can look at if in 2005

529

00:31:43,240 --> 00:31:48,960

teenage child health weight in primary one was doing better than now or worse.

530

00:31:49,280 --> 00:31:52,720

Also, we try to put a very focus on improvement as well.

531

00:31:54,320 --> 00:31:59,280

In the boxes, we've used this set of colours all over the dashboard,

532

00:31:59,600 --> 00:32:02,400

so blue is doing better, orange is doing worse,

533

00:32:02,640 --> 00:32:05,120

and grey is doing similarly, and then there are some where

534

00:32:05,440 --> 00:32:07,680

there's no difference that can be calculated.

535

00:32:09,000 --> 00:32:12,240

We call this a conversation starter, so users can just look at this

536

00:32:12,280 --> 00:32:14,400

and start to try to understand the issues

537

00:32:14,880 --> 00:32:17,880

and the strong points of the community, and they can bring this

538

00:32:18,360 --> 00:32:19,400

to the table to...

539

00:32:20,760 --> 00:32:21,800

discuss.

540

00:32:21,960 --> 00:32:25,240

As I said, there needs to be a lot of local knowledge into this data

541

00:32:25,280 --> 00:32:29,880

because, yeah, again there's lots of factors that we don't really know.

542

00:32:30,160 --> 00:32:32,720

So they can try to factor that in.

543

00:32:34,560 --> 00:32:37,240

They have different ways of seeing to this data as well,

544

00:32:37,280 --> 00:32:41,280

so they can see a trend chart, which is very similar,

545

00:32:41,720 --> 00:32:44,840

but they can see how the numbers have been changing over time.

546

00:32:46,120 --> 00:32:49,320

This one, for example, is quite an interesting one,

547

00:32:49,360 --> 00:32:52,600

because if you can see, smoking during pregnancy

548

00:32:52,640 --> 00:32:55,280

was doing worse than the comparator and then eventually,

549

00:32:55,320 --> 00:32:58,000

they score better than it.

550

00:32:59,920 --> 00:33:04,520

And when we drill into the different indicators,

551

00:33:05,440 --> 00:33:09,200

this is, for example, for alcohol-related hospital admissions,

552

00:33:09,800 --> 00:33:11,800

and they can see the changes over time.

553

00:33:12,600 --> 00:33:16,960

We calculate confidence intervals because we go down to very small

554

00:33:18,440 --> 00:33:21,520

local areas. There's quite a lot of random variation in the data,

555

00:33:21,560 --> 00:33:23,960

so we've tried to provide confidence intervals.

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00:33:24,240 --> 00:33:28,400

You just can try to understand if variation is within

557

00:33:28,640 --> 00:33:30,640

what will be expected, or exactly.

558

00:33:32,960 --> 00:33:35,320

Just as something to be more extraordinary

559

00:33:35,360 --> 00:33:37,200

and worth paying attention to.

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00:33:40,840 --> 00:33:45,280

In the next slide, this shows the rank comparisons,

561

00:33:45,320 --> 00:33:51,000

so the users can see a set of areas, in this case, health boards,

562

00:33:51,040 --> 00:33:54,960

and how they rate compared to Scotland,

563

00:33:55,160 --> 00:33:57,400

and they can also look at it in a map.

564

00:33:58,120 --> 00:34:00,720

We've provided this for all of the different areas,

565

00:34:00,760 --> 00:34:03,160

for example, this is alcohol-related hospital stays

566

00:34:03,200 --> 00:34:07,560

for Glasgow, and when you actually go to the small areas,

567

00:34:07,600 --> 00:34:11,760

this provides a lot better drilldown of the data,

568

00:34:11,800 --> 00:34:13,240

and a lot more insights

569

00:34:13,680 --> 00:34:15,720

on how different communities can be doing,

570

00:34:16,600 --> 00:34:19,200

and as I mentioned, we also had

571

00:34:21,080 --> 00:34:26,800

comparison over time for alcohol-related hospital stays,

572

00:34:26,840 --> 00:34:28,680

the changes within council area,

573

00:34:28,880 --> 00:34:34,000

and here, you can see, for example, Glasgow in 2002 was here,

574

00:34:34,280 --> 00:34:38,000

in 2017 it's here, so it's been doing better.

575

00:34:38,280 --> 00:34:40,760

But you can see the size of some of the improvements,

576

00:34:41,080 --> 00:34:44,000

or you can see where areas have been getting worse over time.

577

00:34:44,840 --> 00:34:48,760

So, we think this is a very useful way of looking at the data as well.

578

00:34:51,040 --> 00:34:52,520

For health inequalities,

579

00:34:53,360 --> 00:34:55,920

we divide the population in twenty percents.

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00:34:56,680 --> 00:35:00,760

And then, we just show the deprivation gradient

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00:35:00,800 --> 00:35:04,040

and how it affects these case deaths at all ages.

582

00:35:04,360 --> 00:35:06,920

We've tried to summarize this information, as well,

583

00:35:06,960 --> 00:35:13,360

in a simpler way, so, given some key headline figures for the data,

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00:35:13,840 --> 00:35:19,400

so users can understand the information quicker than having to figure it out,

585

00:35:19,600 --> 00:35:22,040

what is the key message from it?

586

00:35:23,920 --> 00:35:28,000

As I mentioned, we just have a data tab where the users can select

587

00:35:28,040 --> 00:35:30,720

basically every bit of data that they want.

588

00:35:32,920 --> 00:35:36,560

And this is very used by a range of different analysts

589

00:35:36,600 --> 00:35:40,520

that work on local councils, or partnerships and so on.

590

00:35:43,720 --> 00:35:45,960

So, the impact of the dashboard.

591

00:35:46,080 --> 00:35:48,920

It'll help us meet our user needs.

592

00:35:49,320 --> 00:35:54,040

We've done a lot of usability testing, and a lot of user engagement,

593

00:35:54,440 --> 00:35:59,000

and received a lot of user feedback, and we have been trying to implement it.

594

00:35:59,040 --> 00:36:02,520

So there's been quite a lot of changes as to try to make sure that we were

595

00:36:02,680 --> 00:36:05,320

meeting the needs of our users.

596

00:36:05,680 --> 00:36:08,840

I think one way that we've measured the impact, as well,

597

00:36:08,880 --> 00:36:12,360

is that we used to receive a lot of ad-hoc requests for data

598

00:36:12,440 --> 00:36:14,400

and for different bits of information.

599

00:36:14,720 --> 00:36:17,600

And that's basically dropped to zero in the last three years

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00:36:17,760 --> 00:36:21,240

because we are actually providing the information that they need.

601

00:36:22,840 --> 00:36:27,000

We also have user statistics through Google analytics,

602
00:36:28,120 --> 00:36:31,920
and that does show that, yeah, we've got a very healthy

603
00:36:34,160 --> 00:36:36,880
user community, that are using continuously,

604
00:36:38,360 --> 00:36:42,680
and we have-- we are trying to look more into

605
00:36:43,480 --> 00:36:47,640
providing users with evidence for actions and move from just providing them with data,

606
00:36:47,680 --> 00:36:49,440
but actually being like, okay, so

607
00:36:49,480 --> 00:36:51,920
you already have an issue with this particular topic.

608
00:36:52,080 --> 00:36:56,560
This is some solutions that have been working across Scotland on this topic,

609

00:36:56,600 --> 00:37:02,080

so you can actually start to action the data that we provide you.

610

00:37:02,680 --> 00:37:06,120

We are trying to develop a series of impact cases,

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00:37:06,160 --> 00:37:12,240

so, looking at how our users are using this information in the local areas,

612

00:37:12,280 --> 00:37:15,160

and how it's making an impact.

613

00:37:16,880 --> 00:37:20,800

And I think another thing that is worth noting, is that

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00:37:22,680 --> 00:37:25,760

we've moved to a much more efficient process,

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00:37:26,200 --> 00:37:30,200

it's very simple for us now to produce new information, I think,

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00:37:30,240 --> 00:37:31,840

to meet our user needs,

617

00:37:32,200 --> 00:37:34,880

and it's been very good as well for our staff development

618

00:37:34,920 --> 00:37:39,040

in terms of learning R Shiny, we use GitHub as well,

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00:37:40,120 --> 00:37:43,400

all those skills have been spread across the team,

620

00:37:43,440 --> 00:37:44,880

and across all the teams.

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00:37:45,280 --> 00:37:47,280

And this was one of the first dashboards

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00:37:47,320 --> 00:37:50,080

created in R Shiny in Public Health Scotland.

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00:37:50,120 --> 00:37:54,400

And now we have a lot of them that have been using this one as a template

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00:37:54,680 --> 00:37:57,080

so it has been a pretty good process in that way.

625

00:37:59,400 --> 00:38:01,840

I just got some links and contacts here,

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00:38:01,920 --> 00:38:04,080

that I'll share the presentation afterwards.

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00:38:04,880 --> 00:38:08,760

All of our data, as I said, is freely available,

628

00:38:09,080 --> 00:38:12,040

Our code is available in GitHub as well,

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00:38:13,080 --> 00:38:16,080

we are always welcoming questions and feedback,

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00:38:16,120 --> 00:38:19,360

so just drop me a message if you want.

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00:38:20,120 --> 00:38:21,160

And, that's me.

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00:38:23,480 --> 00:38:26,000

Okay, thank you very much, Jaime, that was fantastic,

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00:38:26,400 --> 00:38:32,440

really comprehensive overview of what looks like a really great resource.

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00:38:32,480 --> 00:38:35,160

I said, I'll keep making the case,

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00:38:35,200 --> 00:38:38,720

keep asking for folks to pop the questions in the chat

636

00:38:38,760 --> 00:38:39,880

and we'll get to them.

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00:38:40,120 --> 00:38:45,800

So for the next talk-- and I won't spend too long introducing this,

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00:38:45,840 --> 00:38:49,400

but you'll hear from my Urban Big Data Centre colleague,

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00:38:49,440 --> 00:38:55,160

Zsanett Bahor who's gonna explain how we will go about this process of

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00:38:55,400 --> 00:38:57,360

first of all, identifying needs,

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00:38:57,840 --> 00:39:00,920

and seeking then to align those with appropriate data sets,

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00:39:00,960 --> 00:39:05,240

appropriate presentation approaches and interactivity.

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00:39:06,200 --> 00:39:07,640

Take it away, Zsanett.

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00:39:08,520 --> 00:39:09,960

Thanks very much, Andrew.

645

00:39:11,600 --> 00:39:13,960

I'm just gonna attempt to share my screen.

646

00:39:24,240 --> 00:39:26,560

So hopefully you should all see that.

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00:39:27,640 --> 00:39:30,760

I'm in presentation mode, great. Okay, good morning everybody.

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00:39:31,480 --> 00:39:33,520

Glad that you've made it along this morning

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00:39:33,560 --> 00:39:35,040

to our webinar presentations.

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00:39:36,480 --> 00:39:37,680

My name is Zsanett Bahor,

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00:39:37,720 --> 00:39:41,440

I'm a data analyst and dashboard developer at UBDC.

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00:39:41,760 --> 00:39:44,760

And this morning, I'm going to be trying to talk about

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00:39:44,800 --> 00:39:47,480

how you might go about building your own dashboards,

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00:39:47,520 --> 00:39:51,560

in terms of identifying needs, and aligning these with data,

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00:39:51,640 --> 00:39:54,920

and in terms of how best to present these data,

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00:39:54,960 --> 00:39:59,560

and make sure that they're engaging and encourage interactivity.

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00:40:01,680 --> 00:40:04,840

Justine's already given a really good introduction to dashboards,

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00:40:04,880 --> 00:40:07,760

but I'll quickly give you a bit of a background

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00:40:07,800 --> 00:40:09,680

in why I think design matters.

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00:40:10,000 --> 00:40:11,680

So obviously, data and analytics

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00:40:11,720 --> 00:40:14,720

over the past decade has become really important

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00:40:14,760 --> 00:40:16,000

in decision-making.

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00:40:16,080 --> 00:40:17,800

And in this sense,

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00:40:18,160 --> 00:40:20,280

dashboards have become a standard tool

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00:40:20,520 --> 00:40:25,480

over this last decade in terms of communicating data and insights.

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00:40:26,840 --> 00:40:30,720

Dashboards can be really useful in communicating data effectively,

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00:40:31,440 --> 00:40:34,760

also at highlighting important information

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00:40:34,800 --> 00:40:37,760

starting evidence-guided conversations,

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00:40:38,000 --> 00:40:41,320

and ultimately in many cases, driving action.

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00:40:41,760 --> 00:40:46,600

It can sort of provide a lot of benefits over things like static reports,

671

00:40:46,640 --> 00:40:52,880

or data tables in Excel, as you might be using already.

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00:40:53,400 --> 00:40:56,520

And because they can provide a sort of real-time interface

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00:40:56,560 --> 00:40:58,760

where you can collate different sources of data,

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00:40:59,200 --> 00:41:04,320

and look at both historical, as well as up to date data to inform decisions.

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00:41:05,400 --> 00:41:09,080

I'm sure I don't need to tell anybody that unfortunately

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00:41:09,560 --> 00:41:14,800

sometimes if dashboards or certainly even web interfaces are designed poorly,

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00:41:15,200 --> 00:41:19,080

they end up doing the opposite and they fail to engage users,

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00:41:19,120 --> 00:41:21,840

and they also fail to convey key insights,

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00:41:21,880 --> 00:41:25,880

and can often make data more confusing and less comprehensible.

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00:41:27,040 --> 00:41:30,840

So this morning, what I'll try and do is sort of give you

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00:41:31,080 --> 00:41:36,280

tips that I think would sort of help you design something

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00:41:36,320 --> 00:41:39,880

that is quite engaging and can result in

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00:41:39,920 --> 00:41:42,160

a fairly high quality dashboard hopefully.

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00:41:43,360 --> 00:41:47,520

I think the first and foremost most important thing to consider

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00:41:47,560 --> 00:41:50,320

when you're designing a dashboard, is

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00:41:50,760 --> 00:41:52,560

considering who your users are.

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00:41:55,360 --> 00:41:59,680

You need to-- basically the ultimate thing in terms of dashboard

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00:41:59,720 --> 00:42:01,720

is that you want to communicate something.

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00:42:02,680 --> 00:42:04,840

In order to make this as engaging as possible,

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00:42:04,880 --> 00:42:08,000

you need to identify who your target audience is,

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00:42:08,040 --> 00:42:09,080

and get to know them.

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00:42:09,120 --> 00:42:11,520

So it's really important to know what user context,

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00:42:11,560 --> 00:42:13,720

what their motivations, what their needs are.

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00:42:13,960 --> 00:42:16,720

And it's important to identify your target audience

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00:42:16,760 --> 00:42:20,400

as well as a sort of broader audience if there is one.

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00:42:21,000 --> 00:42:24,160

And many dashboards can have multiple audiences in this sense.

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00:42:24,400 --> 00:42:27,160

So you will want to identify as many of them as possible

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00:42:27,200 --> 00:42:31,560

right up front, and many of them will want different levels of detail.

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00:42:32,040 --> 00:42:36,080

So identifying them upfront will help you prioritise

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00:42:36,120 --> 00:42:39,400

what to include in the dashboard, and what they will be looking for.

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00:42:39,440 --> 00:42:43,320

And some of the questions you might want to ask in this context,

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00:42:43,360 --> 00:42:45,800

are "Who is your anticipated audience,

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00:42:46,200 --> 00:42:49,160

and what is their role within the organisation or the group

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00:42:49,200 --> 00:42:51,240

that you are designing this dashboard for"?

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00:42:51,960 --> 00:42:53,960

What do they already know?

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00:42:54,360 --> 00:42:57,240

And what kind of level of data literacy do they have?

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00:42:57,280 --> 00:43:00,000

So this will inform how much context you need to give

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00:43:00,040 --> 00:43:02,040

when you present information,

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00:43:02,400 --> 00:43:06,120

and finally, the most important bit is what do they need to know,

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00:43:06,160 --> 00:43:09,920

or what do they want to know and gain from the dashboard you are designing.

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00:43:10,480 --> 00:43:14,080

So more specifically, what questions do they need answering

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00:43:14,120 --> 00:43:16,000

when they are coming to your dashboard?

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00:43:16,080 --> 00:43:19,240

And what kind of information are they looking to take away from it?

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00:43:20,160 --> 00:43:24,240

So whether this will be a high level, overview of performance,

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00:43:24,280 --> 00:43:27,080

or one to sort of drill down further into the data

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00:43:27,120 --> 00:43:29,320

and look at things like historical insights

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00:43:30,920 --> 00:43:32,440

and things like this.

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00:43:34,240 --> 00:43:40,560

So then we get to think about what is the purpose of the dashboards.

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00:43:40,600 --> 00:43:44,040

So purpose will obviously inform design in terms of presentation

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00:43:44,400 --> 00:43:47,200

and the level of detail that you will need to include.

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00:43:47,920 --> 00:43:50,200

So this is something you need to be clear about.

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00:43:50,400 --> 00:43:53,440

What you're trying to achieve with the dashboard you're creating

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00:43:53,480 --> 00:43:54,520

right up front.

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00:43:54,560 --> 00:43:58,640

And this may be one or a combination of lots of different things

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00:43:58,680 --> 00:44:00,920

such as seeing the bigger picture,

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00:44:01,120 --> 00:44:04,280

or focusing on specific operational metrics,

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00:44:04,320 --> 00:44:07,680

or even getting a sort of deep dive into the information

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00:44:07,880 --> 00:44:11,960

and being able to explore certain questions in relation to a topic.

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00:44:12,000 --> 00:44:16,320

And Justine has very nicely outlined the different dashboards there may be,

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00:44:16,360 --> 00:44:20,240

so I'm not going to go into any detail, but these will sort of inform

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00:44:21,040 --> 00:44:23,040

the purpose behind the dashboard itself.

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00:44:23,480 --> 00:44:26,120

And some of the questionsyou may want to consider here,

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00:44:26,400 --> 00:44:30,800

is just remember what value the dashboard your designing

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00:44:31,280 --> 00:44:35,360

will be adding to both-- well, to the organisation and the group

735

00:44:35,400 --> 00:44:37,080

that you will be designing it for.

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00:44:37,520 --> 00:44:41,160

And then consider how your end-users will want to use the dashboard.

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00:44:41,200 --> 00:44:44,480

So, will it be something that's explanatory

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00:44:44,520 --> 00:44:46,240

in terms of what is being shown?

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00:44:46,560 --> 00:44:49,520

Or are they expecting something where they can sort of explore,

740

00:44:49,560 --> 00:44:53,480

and draw their own insights in terms of what is being shown.

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00:44:58,520 --> 00:45:01,360

Here is an important concept to remember:

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00:45:01,400 --> 00:45:07,200

Part of-- the need for identifying these user needs and purposes early,

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00:45:07,640 --> 00:45:11,720

is that so you can streamline what you end up including in your dashboard.

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00:45:12,600 --> 00:45:17,600

So ultimately, you want to select indicators that meet identified needs.

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00:45:17,640 --> 00:45:20,600

And you're only really wanting to include what's important,

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00:45:20,640 --> 00:45:24,280

and support the board's intent that you've identified earlier,

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00:45:24,640 --> 00:45:28,480

because you don't want to be overwhelmed with the data that is being shown.

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00:45:28,520 --> 00:45:32,680

So you want to choose data that translates into meaningful information,

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00:45:33,240 --> 00:45:36,000

So again, this is coming back to users,

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00:45:36,040 --> 00:45:38,400

and making sure that it fits the end-user needs

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00:45:38,440 --> 00:45:41,280

and can be interpreted in business terms,

752

00:45:41,320 --> 00:45:44,240

or what's useful to them, what they're actually interested in.

753

00:45:44,480 --> 00:45:46,920

And then it also fits this purpose of the dashboard.

754

00:45:46,960 --> 00:45:50,000

So are you showing data that they are looking to get,

755

00:45:50,040 --> 00:45:52,880

and is it at the level they are hoping to get out of it.

756

00:45:56,520 --> 00:46:00,600

Then when it comes to deciding what exact data to include,

757

00:46:01,160 --> 00:46:04,440

there are some considerations that you may want to think about here.

758

00:46:05,000 --> 00:46:06,120

So, first of all,

759

00:46:06,680 --> 00:46:09,960

it's obviously the obvious factor is what's actually available

760

00:46:10,000 --> 00:46:11,040

in terms of data.

761

00:46:12,480 --> 00:46:16,200

So you might, as Justine's showed with the Dublin Dashboard,

762

00:46:16,240 --> 00:46:19,800

a lot of data comes from different sources, so you might want to identify

763

00:46:20,240 --> 00:46:24,720

whether there's data out there from different places that you could inquire about

764

00:46:24,760 --> 00:46:27,200

and you could get, and bring into the dashboard to sort of

765

00:46:27,240 --> 00:46:30,560

inform and answer those questions that you really need answering

766

00:46:31,080 --> 00:46:34,440

Moreover, is the data that you have identified,

767

00:46:34,480 --> 00:46:37,600

is it granular enough to answer the questions

768

00:46:37,640 --> 00:46:39,360

that you really need answering?

769

00:46:40,120 --> 00:46:45,880

Like Jaime says, if you're interested in health at a local level,

770

00:46:45,920 --> 00:46:49,640

is it enough if the data only shows something at, say,

771

00:46:49,680 --> 00:46:53,440

a much larger geography ie: for the entirety of Glasgow?

772

00:46:53,480 --> 00:46:56,880

Is that going to be answering the questions that you need to know about?

773

00:46:56,920 --> 00:46:59,520

Say, in neighbourhoods within Glasgow.

774

00:47:00,440 --> 00:47:04,160

And then, obviously there's this idea that you want to make sure that

775

00:47:04,200 --> 00:47:07,680

the data you're including in a dashboard is of high quality.

776

00:47:08,600 --> 00:47:11,200

This includes obviously the obvious one,

777

00:47:11,840 --> 00:47:14,240

to make sure that the data is accurate,

778

00:47:14,280 --> 00:47:16,040

but also, is it complete

779

00:47:17,400 --> 00:47:21,000

in terms of does it provide a complete picture of what you're trying to

780

00:47:22,880 --> 00:47:25,920

what you're trying to explain, what you're trying to understand.

781

00:47:25,960 --> 00:47:29,360

Is the data sort of representative and accurate in that sense.

782

00:47:30,240 --> 00:47:35,480

And then, there's this idea of timeliness and continuity.

783

00:47:35,960 --> 00:47:40,520

So, if you're using some data, is it updated often enough

784

00:47:40,560 --> 00:47:44,160

that it can answer those questions that you're looking for answers to.

785

00:47:45,440 --> 00:47:48,800

You know, often enough, and can it be informative in that sense,

786

00:47:48,840 --> 00:47:52,920

and is it something that will continue to be updated going forward,

787

00:47:52,960 --> 00:47:57,040

or is it sort of one-off historical data that will not help

788

00:47:57,960 --> 00:48:01,320

give you a real time picture of different things.

789

00:48:01,840 --> 00:48:03,560

And then finally, there's two things

790

00:48:03,600 --> 00:48:05,480

that you should obviously always be careful of

791

00:48:05,520 --> 00:48:07,560

when working with any sort of data,

792

00:48:07,600 --> 00:48:10,120

but especially when it comes to things like dashboards,

793

00:48:10,160 --> 00:48:13,240

and that's to consider things like data privacy,

794

00:48:13,680 --> 00:48:16,160

and any sort of data licensing issues.

795

00:48:16,200 --> 00:48:18,400

So, you want to make sure that

796

00:48:19,480 --> 00:48:21,360

any data shared through a dashboard

797

00:48:21,760 --> 00:48:27,120

doesn't break any confidentiality or contractual agreements.

798

00:48:28,080 --> 00:48:32,320

And say if you are using data in your dashboard

799

00:48:32,360 --> 00:48:34,600

that is otherwise not made publicly available,

800

00:48:34,640 --> 00:48:38,320

then it's probably not a good idea to put this on a web platform

801

00:48:38,360 --> 00:48:40,800

for everybody to see and for everybody to access.

802

00:48:41,000 --> 00:48:43,640

So there's some things there that need thinking about

803

00:48:44,960 --> 00:48:47,480

in advance. And you can always implement things like

804

00:48:47,920 --> 00:48:50,920

anonymisation, or sort of, disclosure control,

805

00:48:51,560 --> 00:48:54,440

but it's always important to tread carefully when

806

00:48:56,160 --> 00:49:00,600

using any sort of data, and especially if you're designing a dashboard

807

00:49:00,640 --> 00:49:03,480

that will be sort of open and available to all.

808

00:49:06,280 --> 00:49:11,640

I just want to include a case study of a project we've done recently

809

00:49:11,680 --> 00:49:13,680

within UBDC, just to give you an idea

810

00:49:13,720 --> 00:49:16,960

of how you might approach a problem in real life

811

00:49:17,000 --> 00:49:19,720

in terms of thinking about your audience and your purpose,

812

00:49:20,080 --> 00:49:24,600

So this was a project that we made for the Glasgow City Region,

813

00:49:27,960 --> 00:49:30,120

and basically, it was an economic dashboard.

814

00:49:30,160 --> 00:49:34,200

Our audience here were local authorities within the Glasgow city region,

815

00:49:34,360 --> 00:49:38,400

and anyone else who was interested in economic data in that sense.

816

00:49:38,600 --> 00:49:43,280

And the purpose of it, was to deliver a demonstrative dashboard

817

00:49:43,320 --> 00:49:46,560

that provided insights on economic activity

818

00:49:46,880 --> 00:49:51,600

at the city region levels and meet local policy and operational needs.

819

00:49:51,960 --> 00:49:55,360

The data we were given, actually in advance,

820

00:49:55,400 --> 00:49:59,840

that had already been collated from openly shared data by the government

821

00:50:00,480 --> 00:50:02,440

and from various different places.

822

00:50:03,520 --> 00:50:05,800

So we didn't really have to go looking for that.

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00:50:06,400 --> 00:50:10,080

But essentially, we ended up obviously identifying specific needs,

824

00:50:10,120 --> 00:50:13,320

which helped drive the design of the dashboard itself.

825

00:50:14,320 --> 00:50:16,760

The most specific one was that

826

00:50:17,440 --> 00:50:20,960

local authorities were really interested in getting an overview

827

00:50:22,320 --> 00:50:26,440

at the level of their own authority within the Glasgow city region

828

00:50:27,240 --> 00:50:30,760

of these economic indicators. But also, be able to compare them

829

00:50:31,600 --> 00:50:35,760

between each other, and also compare the Glasgow city region

830

00:50:35,800 --> 00:50:38,080

to other city regions within the UK.

831

00:50:38,880 --> 00:50:41,680

Obviously, there was a need to make it user-friendly

832

00:50:41,720 --> 00:50:44,840

and have a simple interface, because of

833

00:50:46,200 --> 00:50:51,000

this requirement that everyone could use it,

834

00:50:51,040 --> 00:50:55,680

that it was accessible to everybody, and there wasn't any requirement

835

00:50:55,720 --> 00:50:58,680

in terms of understanding where the data was coming from

836

00:50:58,720 --> 00:51:01,080

and how it was being used.

837

00:51:01,120 --> 00:51:04,720

And then the main need that

838

00:51:05,560 --> 00:51:07,960

informed what kind of tool we ended up going with.

839

00:51:08,000 --> 00:51:11,880

Was this idea that we really wanted to be able to create reports

840

00:51:11,920 --> 00:51:14,480

and export some of the visualisations

841

00:51:14,840 --> 00:51:21,680

and have custom pdf printouts of specific authorities,

842

00:51:22,040 --> 00:51:26,240

local authorities, and also have these comparisons

843

00:51:26,280 --> 00:51:28,920

that they could take away and share amongst themselves.

844

00:51:29,440 --> 00:51:33,560

So the end result... and yes, it plays great,

845

00:51:34,480 --> 00:51:37,040

was this dashboard created in R Shiny

846

00:51:37,400 --> 00:51:40,600

that, first of all, gives you this overview of a local authority

847

00:51:40,640 --> 00:51:42,360

where you can download the data,

848

00:51:42,880 --> 00:51:44,560

and then also this other page

849

00:51:44,600 --> 00:51:47,520

of where you can compare different local authorities

850

00:51:47,560 --> 00:51:51,760

within that Glasgow city region, and look at specific indicators.

851

00:51:52,040 --> 00:51:54,680

And, similarly to the ScotPHO app, you can compare them,

852

00:51:54,920 --> 00:51:56,560

and enter your certain area,

853

00:51:56,840 --> 00:52:00,960

and look at this in different ways, as well as download the data.

854

00:52:01,560 --> 00:52:05,320

And then we have this third sort of tab where you can compare

855

00:52:05,360 --> 00:52:09,760

those different city regions within the UK in a similar format,

856

00:52:09,800 --> 00:52:12,400

and be able to download the data both as a csv,

857

00:52:14,440 --> 00:52:18,320

alongside some of the graphs, and also as a pdf custom report.

858

00:52:21,600 --> 00:52:22,800

How do you end up

859

00:52:24,400 --> 00:52:28,520

putting this all into action? This is actually somewhat the fun part,

860

00:52:28,560 --> 00:52:31,440

is when you start designing the actual dashboard itself.

861

00:52:34,480 --> 00:52:37,520

There's lots and lots of different resources on the internet,

862

00:52:37,560 --> 00:52:40,040

giving you advice on what kind of design is best

863

00:52:40,080 --> 00:52:43,640

and how you might want to approach the design aspect of the thing.

864

00:52:43,800 --> 00:52:46,520

One thing they all agree on, is that it's really important

865

00:52:46,560 --> 00:52:48,920

to make sure that your design is straightforward.

866

00:52:48,960 --> 00:52:52,680

So, this starts with ensuring that the information that you're showing

867

00:52:52,880 --> 00:52:54,960

obviously is as clear as possible,

868

00:52:55,720 --> 00:52:59,880

and the most relevant information, any key take-home messages

869

00:52:59,920 --> 00:53:01,280

are clear at a glance,

870

00:53:02,040 --> 00:53:04,400

so that you're making it simple for the user,

871

00:53:04,440 --> 00:53:07,320

to understand what you're trying to communicate with them.

872

00:53:07,360 --> 00:53:10,360

And this can be done obviously by providing labels,

873

00:53:10,880 --> 00:53:12,800

or providing a little bit of context,

874

00:53:13,280 --> 00:53:14,680

but there's no sort of...

875

00:53:16,800 --> 00:53:18,480

For example, there's no sort of...

876

00:53:20,120 --> 00:53:24,760

scenario where someone has to go away and calculate things for themselves

877

00:53:24,800 --> 00:53:27,520

because it isn't obvious at that first glance.

878

00:53:30,520 --> 00:53:34,400

In the same context, if you want to make a dashboard user-friendly,

879

00:53:34,440 --> 00:53:38,080

then one of the biggest and most important advice is

880

00:53:38,280 --> 00:53:40,040

that you want to avoid clutter.

881

00:53:40,680 --> 00:53:44,160

As I said before, you don't want to just streamline the data you include,

882

00:53:44,360 --> 00:53:46,440

but you want to streamline the design of it,

883

00:53:46,480 --> 00:53:49,120

and you want to avoid detracting from what's important.

884

00:53:49,160 --> 00:53:53,080

And so some things you can use here are things like interactivity,

885

00:53:53,920 --> 00:53:55,080

where you can, you know,

886

00:53:55,680 --> 00:53:58,800

present the data by asking the user to select a certain area

887

00:53:58,840 --> 00:54:01,520

so that you don't have to show all the areas at one point

888

00:54:01,560 --> 00:54:05,160

if it's similar to something like the ScotPHO app

889

00:54:05,200 --> 00:54:10,400

and you can have different indicators of different area levels,

890

00:54:11,480 --> 00:54:14,640

So there's two examples here in the bottom where you can see

891

00:54:15,760 --> 00:54:19,840

that this idea where everything is being shown

892

00:54:20,000 --> 00:54:23,040

you just don't know where to begin, and it's quite overwhelming.

893

00:54:24,040 --> 00:54:27,240

And it's quite difficult to see what those key take-home messages are,

894

00:54:27,280 --> 00:54:29,640

and what should be taken away from a dashboard like that.

895

00:54:29,680 --> 00:54:33,000

Where as the second example is a little bit more easy on the eye.

896

00:54:33,400 --> 00:54:35,400

And it still has a lot of information,

897

00:54:35,440 --> 00:54:38,280

but it allows the user to select certain things,

898

00:54:38,320 --> 00:54:41,600

and is a lot more forgiving, in a way,

899

00:54:41,640 --> 00:54:44,960

and sort of allows you to go explore in your own time.

900

00:54:46,960 --> 00:54:49,840

So in the same sense, obviously,

901

00:54:49,880 --> 00:54:52,560

it's important to use good visual organisation

902

00:54:52,600 --> 00:54:54,280

when you design your dashboards.

903

00:54:54,480 --> 00:54:57,920

So we make it clear, like I say, to the user, what's important,

904

00:54:58,160 --> 00:55:00,960

what you should be taking away. And you can use things like

905

00:55:01,000 --> 00:55:05,560

sizing, position of different widgets, as well as grouping

906

00:55:05,600 --> 00:55:07,520

to show things like hierarchy,

907

00:55:07,960 --> 00:55:12,640

You can use this sort of, bottom-down upside-down pyramid idea

908

00:55:12,680 --> 00:55:14,240

if that's helpful, to sort of

909

00:55:15,680 --> 00:55:17,720

have the most important information up top,

910

00:55:17,760 --> 00:55:20,600

and then give more detail as you go further down the page.

911

00:55:21,480 --> 00:55:23,600

You might want to consider--

912
00:55:24,200 --> 00:55:27,960
well, it's really important to consider how people consume

913
00:55:28,040 --> 00:55:30,000
visual representations,

914
00:55:30,240 --> 00:55:32,560
so there's lots of great studies on this as well,

915
00:55:32,600 --> 00:55:36,240
on the internet looking at eye tracking and how people consume

916
00:55:37,360 --> 00:55:39,400
a web page or a dashboard, for example.

917
00:55:39,880 --> 00:55:43,640
And one thing that they all agree on, is that things like big numbers matter,

918
00:55:43,880 --> 00:55:46,880
and also the most visually attractive part of a dashboard

919

00:55:46,920 --> 00:55:50,760

tends to be that top part of the dashboard,

920

00:55:50,800 --> 00:55:53,080

but also a little bit to the left.

921

00:55:55,880 --> 00:55:57,560

I don't need to tell you, I'm sure,

922

00:55:57,600 --> 00:56:00,560

that it's really important to use the right type of chart

923

00:56:00,600 --> 00:56:04,080

when it comes to representing data, obviously this aids your understanding

924

00:56:04,120 --> 00:56:05,600

in what you take away from it.

925

00:56:06,280 --> 00:56:07,800

I don't want to go into detail,

926

00:56:07,840 --> 00:56:10,720

because there is lots of stuff on this on the internet as well,

927

00:56:10,760 --> 00:56:15,160

but obviously the idea is to try and communicate clearly as possible

928

00:56:15,200 --> 00:56:16,560

what you're trying to show.

929

00:56:16,600 --> 00:56:20,240

So again, it really matters what type of chart you use

930

00:56:20,800 --> 00:56:23,400

in terms of communicating this.

931

00:56:24,520 --> 00:56:28,560

And then finally, obviously design is great and fun,

932

00:56:28,600 --> 00:56:31,480

but it's obviously important to keep it clean and consistent.

933

00:56:33,520 --> 00:56:39,360

So this idea about using colours. Obviously, colour can be really useful.

934

00:56:39,400 --> 00:56:41,880

It can really make or break a dashboard.

935

00:56:42,120 --> 00:56:44,840

As you can see on the left, if you don't use any colours,

936

00:56:45,440 --> 00:56:49,920

it's quite difficult to see what the key take-home messages of the dashboard are.

937

00:56:50,880 --> 00:56:54,200

And the obvious fact is that it's not particularly visually appealing.

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00:56:55,320 --> 00:56:58,600

And then if you do use colours, something to be wary of

939

00:56:58,640 --> 00:57:00,360

is the fact that some colours

940

00:57:00,400 --> 00:57:03,280

can obviously represent certain things within our cultures,

941

00:57:03,320 --> 00:57:07,720

so if you use the colour red, that can have negative connotations,

942

00:57:07,760 --> 00:57:10,520

can imply things like error, or danger,

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00:57:11,280 --> 00:57:15,200

or things like this, so always make sure you use colour sparingly.

944

00:57:15,320 --> 00:57:18,720

And it's quite good advice to maybe limit the use of colour

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00:57:18,960 --> 00:57:21,720

to two or three colours, try and keep them consistent

946

00:57:21,760 --> 00:57:23,240

as you go into the dashboard.

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00:57:24,120 --> 00:57:28,240

What you might want to do, is play with tone and things like that

948

00:57:28,280 --> 00:57:31,480

instead of using lots of different colours all in one go.

949

00:57:32,240 --> 00:57:36,880

And then finally, there's this idea that you should also make sure

950

00:57:37,280 --> 00:57:39,880

that the colours you use are accessible,

951

00:57:40,080 --> 00:57:42,920

and are accessible to people who are visually impaired.

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00:57:43,080 --> 00:57:46,960

And there is lots of tools out there that you can test your dashboards

953

00:57:47,000 --> 00:57:50,080

and your websites on this to make sure that they are.

954

00:57:51,840 --> 00:57:54,400

So then it comes to obviously picking the right tool,

955

00:57:54,440 --> 00:57:58,560

and there's lots and lots of great data visualisation tools out there.

956

00:57:58,760 --> 00:58:02,120

These are just some of the examples on the right.

957

00:58:02,160 --> 00:58:03,800

Some things you might want to consider

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00:58:03,840 --> 00:58:06,400

when you're choosing what kind of tool to use,

959

00:58:06,440 --> 00:58:10,280

is obviously this idea of how much it costs

960

00:58:10,320 --> 00:58:13,640

to first of all, obtain, or use the software or the tool,

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00:58:13,960 --> 00:58:17,480

but also maybe to host your end dashboard,

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00:58:17,520 --> 00:58:19,080

that's quite important as well.

963

00:58:19,600 --> 00:58:23,920

There's also this idea of how much level of expertise is required

964

00:58:23,960 --> 00:58:26,160

to first of all, create the dashboard,

965

00:58:26,200 --> 00:58:28,600

and also to maintain the dashboard in the long run.

966

00:58:29,400 --> 00:58:34,080

So, as Jaime alluded to using R Shiny, it's really useful,

967

00:58:34,120 --> 00:58:38,680

and it's obviously free over some paid-for softwares like Tableau.

968

00:58:38,880 --> 00:58:42,480

But it also requires a knowledge of being able to code in R,

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00:58:42,560 --> 00:58:44,840

which is obviously not for everybody.

970

00:58:46,360 --> 00:58:50,040

Software like Tableau will allow you to avoid having to do that,

971

00:58:50,080 --> 00:58:52,360

by having this sort of drag-and-drop idea.

972

00:58:53,920 --> 00:58:56,120

Also, the ability to have key features,

973

00:58:56,160 --> 00:58:58,320

so not all of your tools will allow for this.

974

00:58:58,360 --> 00:59:02,800

So as I showed you earlier in the economic dashboard that we created,

975

00:59:02,840 --> 00:59:06,160

there was this need to be able to have these downloadable reports

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00:59:06,200 --> 00:59:08,080

which R Shiny is great at doing.

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00:59:08,680 --> 00:59:10,760

But some of the tools might not account for.

978

00:59:11,840 --> 00:59:15,840

Also, this idea of accessibility through other devices.

979

00:59:15,920 --> 00:59:19,640

So if I want to look at a dashboard through a mobile phone, for example,

980

00:59:19,680 --> 00:59:21,880

then a web page might be great at doing that.

981

00:59:21,920 --> 00:59:24,440

But if I also want to be able to view it offline,

982

00:59:25,120 --> 00:59:28,360

then obviously a web page is probably not the right way to go.

983

00:59:28,720 --> 00:59:32,760

So, we need to think about how people will be using dashboards

984

00:59:32,800 --> 00:59:34,120

in the longer term.

985

00:59:34,840 --> 00:59:38,160

And then, one of the biggest deciding factors might be

986

00:59:38,880 --> 00:59:40,560

your user preference--

987

00:59:40,680 --> 00:59:42,440

the preference of your users,

988

00:59:42,480 --> 00:59:44,720

and whether they're already familiar with the tools such as

989

00:59:44,760 --> 00:59:46,160

Power BI, for example.

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00:59:46,480 --> 00:59:49,680

Then you might want to go ahead with that instead,

991

00:59:49,720 --> 00:59:51,480

because it will mean that there's

992

00:59:52,200 --> 00:59:55,120

a better chance of taking the first stage, but also,

993

00:59:55,320 --> 00:59:57,680

better chance of engagement in the long run.

994

00:59:59,440 --> 01:00:02,160

And then obviously, unfortunately in most cases,

995

01:00:02,200 --> 01:00:05,440

your job is not done just once you've created the dashboard.

996

01:00:05,480 --> 01:00:08,960

You need to think about how you might want to future-proof it,

997

01:00:09,000 --> 01:00:12,720

so think about how your users will use the dashboard in the long-term.

998

01:00:12,760 --> 01:00:16,960

So like I say, if they want to use it offline maybe,

999

01:00:17,000 --> 01:00:21,600

then it's good to try and think about this at the design stage

1000

01:00:21,640 --> 01:00:23,960

right at the beginning so that you can account for this

1001

01:00:24,000 --> 01:00:25,320

and choose the right tool.

1002

01:00:26,120 --> 01:00:29,240

But there's also some considerations around

1003

01:00:29,280 --> 01:00:33,200

who will maybe maintain and manage the solution after you deploy it.

1004

01:00:33,560 --> 01:00:37,960

So, if there's data behind a tool that is there,

1005

01:00:38,000 --> 01:00:39,680

then who will be updating this?

1006

01:00:40,120 --> 01:00:42,600

Or, if it's connected to live data sources,

1007

01:00:43,000 --> 01:00:46,840

then who will be there to fix it when APIs break,

1008

01:00:46,880 --> 01:00:49,480

or you know, data bases change location,

1009

01:00:49,520 --> 01:00:51,320

or structure, or something like that.

1010

01:00:51,520 --> 01:00:56,640

And obviously, as data becomes more available and changes,

1011

01:00:56,680 --> 01:00:59,360

or questions may change that people are looking to answer

1012

01:00:59,400 --> 01:01:01,000

when they come to your dashboard,

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01:01:01,040 --> 01:01:04,400

you might want to be updating the different versions of the dashboard.

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01:01:06,600 --> 01:01:11,040

My final tip this morning would be to keep evolving your dashboards.

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01:01:11,200 --> 01:01:13,160

So, always remember that

1016

01:01:13,360 --> 01:01:17,080

the ultimate goal of a dashboard is to communicate with your users.

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01:01:17,880 --> 01:01:19,800

So you want to sort of, if you can,

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01:01:19,840 --> 01:01:23,440

have this iterative process, as Jaime perfectly said,

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01:01:23,480 --> 01:01:26,120

you want to involve your users not just right at the beginning,

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01:01:26,160 --> 01:01:28,480

but also once you've created the dashboard.

1021

01:01:28,520 --> 01:01:32,000

So you want to think about what the purpose of it is,

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01:01:32,080 --> 01:01:34,960

and what are your users' needs and requirements.

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01:01:35,000 --> 01:01:37,360

How can you make it easier for them to understand?

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01:01:37,400 --> 01:01:38,600

How can you make it easy

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01:01:38,960 --> 01:01:42,200

for them to access the information, make it clear to them.

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01:01:42,400 --> 01:01:44,680

And then try and get feedback off them,

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01:01:44,720 --> 01:01:46,520

and see if you can keep improving it.

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01:01:46,560 --> 01:01:49,760

And this will make sure that not only is there a high uptake

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01:01:49,800 --> 01:01:51,480

of your dashboard right from the beginning,

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01:01:51,520 --> 01:01:53,800

but that you can maintain this sort of engagement

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01:01:53,840 --> 01:01:55,720

going forward in the long run.

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01:01:57,800 --> 01:02:00,080

And I've included some resources.

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01:02:00,120 --> 01:02:05,800

The internet is absolutely brimming with lots and lots of useful things

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01:02:05,840 --> 01:02:08,520

that you can read on dashboard design,

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01:02:08,560 --> 01:02:11,560

including some other things I mentioned this morning and more.

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01:02:11,600 --> 01:02:15,920

So these are just some examples, and as with all the other speakers,

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01:02:15,960 --> 01:02:17,160

these slides will be shared,

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01:02:17,200 --> 01:02:19,680

so all those things will be available to you.

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01:02:21,120 --> 01:02:22,400

So thank you very much.

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01:02:22,440 --> 01:02:26,440

And I think... I don't know if we still have time for questions,

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01:02:26,480 --> 01:02:28,440

but that gets us up to the question and answer session

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01:02:28,480 --> 01:02:31,600

so I'll pass it back to Andrew, thanks very much.

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01:02:32,200 --> 01:02:36,840

Thank you very much, Zsanett. A really excellent presentation there.

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01:02:36,880 --> 01:02:40,040

A really full overview. Inevitably with the time constraints,

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01:02:40,080 --> 01:02:44,600

we can't offer comprehensive insights into how to build these dashboards,

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01:02:44,640 --> 01:02:48,000

but a really systematic set of steps that you've presented there,

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01:02:49,640 --> 01:02:53,760

hopefully it's given people a real clear idea

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01:02:53,800 --> 01:02:57,480

of what many of the considerations are when approaching these problems.

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01:02:57,880 --> 01:03:01,600

We will still absolutely have questions. I know that Jaime, I'm not sure,

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01:03:01,640 --> 01:03:03,600

is able to stay for the full duration,

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01:03:03,640 --> 01:03:08,240

so it's particularly important that we pose our questions to him just now.

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01:03:08,280 --> 01:03:10,280

I've had one from YouTube.

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01:03:12,200 --> 01:03:16,760

Joseph J, I'll ask on Joseph's behalf, not sure if you're taking questions here

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01:03:16,800 --> 01:03:19,200

but both speakers have recommended R Shiny.

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01:03:19,240 --> 01:03:21,880

Is this a good package for all dashboarding needs?

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01:03:21,920 --> 01:03:26,560

Or is it the recommendation for users that are good at R already?

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01:03:26,600 --> 01:03:30,600

Don't know if Zsanett or Jaime have an opinion on that?

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01:03:32,240 --> 01:03:36,280

I guess it depends on where you're technical skill lies.

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01:03:36,760 --> 01:03:40,400

I mean, R Shiny is pretty good

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01:03:41,840 --> 01:03:45,720

to build it without knowing too much of HTML and CSS and Javascript.

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01:03:46,160 --> 01:03:49,200

So that reduces the entry level

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01:03:49,360 --> 01:03:51,440

that you require to build a dashboard.

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01:03:52,880 --> 01:03:56,320

It's also very active, and a very active development.

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01:03:56,360 --> 01:03:59,120

And if you-- I use R for my data analysis,

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01:03:59,160 --> 01:04:02,000

so it just makes sense, that as the work flow of work.

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01:04:02,800 --> 01:04:06,680

I think also it has an advantage over like, Tableau, or Power BI,

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01:04:07,160 --> 01:04:09,440

that-- well, it has several advantages:

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01:04:09,480 --> 01:04:11,640

one is that it costs a lot less.

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01:04:12,640 --> 01:04:16,000

And another one is that it's much easier to replicate.

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01:04:16,040 --> 01:04:18,080

So, I've got my templates and my dashboards,

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01:04:18,120 --> 01:04:20,800

and I just basically copy and paste all the time I code,

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01:04:20,840 --> 01:04:22,560

and that makes life a lot easier.

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01:04:22,600 --> 01:04:24,840

While in Tableau and Power BI, it's a bit harder

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01:04:24,880 --> 01:04:26,680

to do those type of things.

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01:04:28,760 --> 01:04:31,880

Yeah, there was a lot of considerations when choosing technology,

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01:04:31,920 --> 01:04:35,280

but if it allows you to pivot as straightforwardly as possible

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01:04:35,320 --> 01:04:37,600

from the environment you're working in already,

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01:04:37,640 --> 01:04:39,400

that's pretty compelling, isn't it?

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01:04:39,440 --> 01:04:41,480

Joseph J also asked can we get links to these slides,

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01:04:41,520 --> 01:04:45,240

and again, just to repeat, yes, we will circulate all of these slides to

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01:04:45,280 --> 01:04:47,800

registered attendees, and if you happen to be here

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01:04:47,840 --> 01:04:50,560

and aren't already registered, then just get in touch with us at UBDC

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01:04:50,600 --> 01:04:53,080

and we'll make sure you can get a copy as well.

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01:04:53,800 --> 01:04:56,560

I had a question just for Jaime, just to get a sense

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01:04:56,600 --> 01:05:00,360

of whether there was-- did you face any resistance at all

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01:05:00,400 --> 01:05:05,400

in the development of the app that you described,

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01:05:05,440 --> 01:05:07,880

and in particular, in terms of availability of data,

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01:05:07,920 --> 01:05:10,600

and if so, at what point
did it click with people

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01:05:10,640 --> 01:05:12,880

and they realised that this was something that was valuable

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01:05:12,920 --> 01:05:15,320

and it was worth engaging with?

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01:05:15,720 --> 01:05:19,680

I think we were lucky and we had a very supportive management team.

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01:05:21,280 --> 01:05:24,920

There was a very clear recognition that our previous platform was not

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01:05:25,400 --> 01:05:28,840

meeting our user needs, and we needed to do something about it.

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01:05:30,400 --> 01:05:34,080

and our managers were very encouraging of us trying new technologies, so,

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01:05:34,520 --> 01:05:36,600

so we were supported through the process.

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01:05:37,080 --> 01:05:40,960

I think also they were very keen on making data available.

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01:05:41,000 --> 01:05:42,920

And the fact that we were producing that data

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01:05:42,960 --> 01:05:45,360

for ad-hoc requests a lot of the time,

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01:05:46,640 --> 01:05:49,640

it showcased that if we just made it public,

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01:05:49,680 --> 01:05:51,640

we'll just free the user workload as well,

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01:05:51,680 --> 01:05:53,280

and we can focus on other things.

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01:05:53,320 --> 01:05:55,960

So that was a compelling argument as well.

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01:05:58,280 --> 01:05:59,640

Thank you.

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01:05:59,680 --> 01:06:02,320

I'm not sure if there are any other questions,

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01:06:02,360 --> 01:06:04,560

we've got no other questions in the chat, but

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01:06:05,040 --> 01:06:08,640

I have a question, Andrew, if I can enter it.

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01:06:08,680 --> 01:06:10,520

I have a question for Jaime as well.

1108

01:06:10,960 --> 01:06:14,520

You mentioned that you've done user feedback,

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01:06:14,560 --> 01:06:17,360

and you asked for feedback and user engagements.

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01:06:17,400 --> 01:06:20,160

And I was just curious if you could give us an example

1111

01:06:20,200 --> 01:06:23,200

of a change that you have implemented, or what other feedback you got

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01:06:23,240 --> 01:06:27,120

that you've implemented on the platform following the feedback.

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01:06:28,440 --> 01:06:32,280

Yeah, so, I guess a lot of the changes were quite small about where

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01:06:32,680 --> 01:06:36,680

the text that you use to describe some of the filters,

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01:06:36,760 --> 01:06:39,480

or some of the locations of certain models,

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01:06:39,520 --> 01:06:42,640

just so it's a bit more obvious, but for example,

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01:06:42,680 --> 01:06:47,080

one key one is that we had a different summary visualisation,

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01:06:47,520 --> 01:06:51,440

that users were not really engaging with and not really understanding

1119

01:06:51,480 --> 01:06:53,640

what they were supposed to be getting out of there.

1120

01:06:53,720 --> 01:06:57,120

So we changed to this one, which is a lot more in your face,

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01:06:57,160 --> 01:07:01,640

and a lot easier to understand for the less data-savvy users.

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01:07:05,240 --> 01:07:07,000

Great stuff. Thank you.

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01:07:07,680 --> 01:07:08,960

Any other questions?

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01:07:09,000 --> 01:07:13,600

And we will have a further opportunity for discussion at the end.

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01:07:13,840 --> 01:07:15,320

But as I say, I think Jaime...

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01:07:15,960 --> 01:07:17,360

We have a question, actually.

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01:07:18,200 --> 01:07:20,600

Will Aylward asks--

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01:07:21,360 --> 01:07:23,560

as well as saying thanks to all the presenters,

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01:07:23,600 --> 01:07:27,800

Jaime, do you capture the desired use cases for download requests

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01:07:27,840 --> 01:07:30,280

when an offline analysis is carried out?

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01:07:33,240 --> 01:07:38,240

So, I understand this when we were doing some sort of ad-hoc requests,

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01:07:38,600 --> 01:07:43,280

in that case, yes, we knew why our users were requesting that data

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01:07:43,320 --> 01:07:45,000

and what they were gonna use it for.

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01:07:46,080 --> 01:07:50,720

It was easy for us to incorporate that type of information in there.

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01:07:51,520 --> 01:07:55,640

And if you refer now users downloading the data

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01:07:55,680 --> 01:08:01,480

and then doing their own thing, we are in touch with the local association.

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01:08:02,440 --> 01:08:06,080

It's like-- It's called LARIA, it's a research organisation

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01:08:06,120 --> 01:08:08,480

of local analysts. And we work with them

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01:08:08,520 --> 01:08:11,680

to understand what are their needs, and how they use their data.

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01:08:11,720 --> 01:08:14,400

And again, our organisations will have a lot of analysts

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01:08:14,440 --> 01:08:16,560

that work on partnerships and health boards,

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01:08:16,680 --> 01:08:21,080

and we work with them to understand why they are downloading our data,

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01:08:21,120 --> 01:08:22,680

and what are they using it for.

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01:08:22,720 --> 01:08:26,680

And a lot of it is just live variations of what we present,

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01:08:26,720 --> 01:08:29,760

and different compilations of things, so

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01:08:30,360 --> 01:08:32,240

it's different tweaks that will be

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01:08:33,280 --> 01:08:35,320

too difficult to incorporate into the tool

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01:08:35,800 --> 01:08:38,000

without making it too massive and too complex.

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01:08:38,640 --> 01:08:43,160

But it's easy for them to download and present in a slightly different way.

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01:08:44,200 --> 01:08:45,880

Okay, that's great.

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01:08:46,280 --> 01:08:49,160

And please, jump in if other colleagues have anything to add.

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01:08:49,200 --> 01:08:51,040

The questions are flowing in now.

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01:08:51,080 --> 01:08:54,480

Apologies in advance for the pronunciation. Ainara asks:

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01:08:54,520 --> 01:08:58,400

Is it possible to infer personal data off any of these dashboards?

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01:08:58,440 --> 01:09:01,400

If so, how do you comply with the privacy protection regulation

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01:09:01,640 --> 01:09:02,960

when inferring these data?

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01:09:03,000 --> 01:09:06,320

And I know, Zsanett, you mentioned obviously the importance of privacy.

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01:09:06,360 --> 01:09:08,600

I don't think there's any privacy considerations

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01:09:08,640 --> 01:09:11,440

in the specific dashboard, you showcased.

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01:09:11,480 --> 01:09:14,000

But how would you account for these kinds of things?

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01:09:15,400 --> 01:09:20,400

No, so the one I presented was all openly available data,

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01:09:20,440 --> 01:09:23,840

so we didn't have to deal with that in that case, but

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01:09:24,200 --> 01:09:25,240

yeah, I mean,

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01:09:25,680 --> 01:09:28,880

Actually, Jaime is probably a better person to tell you about this,

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01:09:28,920 --> 01:09:32,160

'cause you do the analyses yourself, so you actually

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01:09:32,400 --> 01:09:36,880

make sure that nothing that gets put on the dashboard is identifiable.

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01:09:37,520 --> 01:09:40,760

But yeah, these are things that you need to consider beforehand, so,

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01:09:42,280 --> 01:09:45,680

in terms of who ends up analysing the data that goes into the dashboard,

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01:09:45,720 --> 01:09:50,840

or where it comes from, and there will be agreements in place, I'm sure.

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01:09:50,880 --> 01:09:53,720

And when it comes to working with this kind of data,

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01:09:53,760 --> 01:09:56,640

so I know our data scientists obviously make sure that

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01:09:56,680 --> 01:09:59,960

any data before it gets shared anywhere,

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01:10:00,000 --> 01:10:04,520

or gets visualised is sort of non-identifiable.

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01:10:04,560 --> 01:10:06,960

So there's different things you can do here.

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01:10:07,560 --> 01:10:09,920

Don't know if that properly answers your question,

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01:10:09,960 --> 01:10:12,640

but there's lots of stuff you can do.

1177

01:10:13,240 --> 01:10:16,520

Yeah. I mean, dashboards are essentially just visualising data.

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01:10:16,560 --> 01:10:19,800

So, we want to make sure that none of the things you're showing

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01:10:19,880 --> 01:10:21,800

have these sort of issues.

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01:10:23,280 --> 01:10:24,960

Yeah, I will add to that.

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01:10:25,000 --> 01:10:28,640

There's a lot of information, information governance rules

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01:10:28,680 --> 01:10:30,240

about the work that we do.

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01:10:31,240 --> 01:10:36,480

And we do a lot of different things to try to provide data that is not

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01:10:38,080 --> 01:10:40,800

personally identifiable.

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01:10:40,920 --> 01:10:42,800

And you can aggregate data by years,

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01:10:42,840 --> 01:10:45,440

you can aggregate data to high geography,

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01:10:45,480 --> 01:10:47,440

so for a lot of our indicators, for example,

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01:10:47,480 --> 01:10:50,560

we don't provide level at intermediate zone

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01:10:50,600 --> 01:10:52,800

because it would be too disclosive.

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01:10:52,840 --> 01:10:55,280

It depends a lot on the nature of your data as well.

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01:10:55,320 --> 01:10:58,120

Like, there's some indicators that are very sensitive,

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01:10:58,160 --> 01:11:02,520

for other ones, it doesn't matter that you can-- that there's [INAUDIBLE].

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01:11:02,680 --> 01:11:05,080

But also, when you start to work with various small numbers,

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01:11:05,120 --> 01:11:07,800

you need to think that what you're showing

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01:11:07,840 --> 01:11:10,400

is gonna be highly affected by random variation

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01:11:11,000 --> 01:11:13,320

and then is it going to show up?

1197

01:11:13,400 --> 01:11:18,560

is it going to provide any useful information to the users to act upon?

1198

01:11:18,840 --> 01:11:21,720

And we, for example, took all the information that we had

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01:11:21,760 --> 01:11:23,440

of very small geography because,

1200

01:11:23,920 --> 01:11:26,200

the numbers were just fluctuating like crazy,

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01:11:26,240 --> 01:11:30,840

so, no one could actually take any positive action about it

1202

01:11:30,880 --> 01:11:33,240

because it's just too difficult to read.

1203

01:11:35,640 --> 01:11:37,200

Okay. Thank you both.

1204

01:11:37,840 --> 01:11:42,160

And the final question on the list is from Mateusz, and Mateusz asks:

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01:11:42,200 --> 01:11:46,680

is there any push for uniformization of the dashboards? For example,

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01:11:46,720 --> 01:11:48,960

between health boards across UK countries,

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01:11:49,000 --> 01:11:50,080

or between cities?

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01:11:50,400 --> 01:11:53,440

Either in terms of comparability or just spreading the idea.

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01:11:53,760 --> 01:11:58,480

I can perhaps answer on behalf of the work that we've done before

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01:11:58,520 --> 01:12:00,320

asking Jaime for his thoughts, but,

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01:12:00,920 --> 01:12:05,240

yeah, I think this is a big priority. This is a very attractive thing to do.

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01:12:05,280 --> 01:12:10,160

To you know, not require people to re-invent wheels.

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01:12:10,200 --> 01:12:14,440

The Glasgow city region dashboard that Zsanett presented,

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01:12:14,480 --> 01:12:17,920

and that we built on behalf of the Intelligence Hub,

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01:12:18,200 --> 01:12:20,800

was firmly around the idea of being able to compare

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01:12:20,840 --> 01:12:24,840

and offer a means of comparability between different UK regions,

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01:12:25,120 --> 01:12:29,120

as well as obviously facilitating the sharing representation

1218

01:12:29,160 --> 01:12:32,560

of information within the Glasgow city region itself.

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01:12:33,040 --> 01:12:36,080

And in addition to, obviously the establishment of these things

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01:12:36,120 --> 01:12:38,040

as a means of connectivity,

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01:12:38,240 --> 01:12:41,240

we're very keen to promote the idea of open code,

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01:12:41,280 --> 01:12:44,400

and open data, and more accessible data,

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01:12:44,880 --> 01:12:48,880

to facilitate others to establish their own resources.

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01:12:49,640 --> 01:12:53,480

Jaime, I'm not sure if you've got an answer to this one.

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01:12:53,840 --> 01:12:57,680

Yeah, I think this is an interesting point.

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01:12:58,040 --> 01:13:01,480

We are trying to be more standardised within our organisation,

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01:13:01,520 --> 01:13:04,200

and that's already a fairly big task.

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01:13:05,240 --> 01:13:08,760

But definitely making your code available.

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01:13:09,800 --> 01:13:11,080

It helps massively,

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01:13:11,120 --> 01:13:13,640

because then people are just going to be copying and pasting your code,

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01:13:13,680 --> 01:13:15,680

because it's quicker than developing their own one.

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01:13:15,720 --> 01:13:18,760

So that helps standardisation over time.

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01:13:19,440 --> 01:13:21,680

And then sort of trying to create networks

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01:13:21,720 --> 01:13:24,400

of people involved in dashboard developments,

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01:13:24,440 --> 01:13:29,120

helps quite a lot to keep things more consistent over time.

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01:13:30,560 --> 01:13:31,560

Lovely.

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01:13:31,840 --> 01:13:32,880

Thank you very much.