

## **1.** Introduction

The UK, the US and the EU are headed towards general elections in 2024. It promises to be a year of change. This change will be reflected in how our Governments approach tech and the digital economy. A shift was needed pre-2023, but the impact of Generative AI has expedited and emphasised this need for change.

Looking back at the last 45 years of tech history it is hard to argue that this has delivered the tech and digital economy that citizens deserve. The technical revolution and its permeating each of our lives was not, and could not, have been planned. It could not have been understood in advance.

This is no longer the case in 2024. With the benefit of hindsight, any Government that fails to learn from our recent tech history is unlikely to be viewed kindly in the history books.

The decision to repeat mistakes or not take the appropriate actions to avoid them in this full knowledge could only be viewed as a decision made with understanding and intent.

Government must now, with unprecedented urgency, seek to enhance the future of all citizens through open technology, including source software, open data and open innovation in AI.

Open Source software is the base of today's technology pizza. Al, ML, blockchain, the cloud, and the internet, are like toppings on a pizza. Everyone is interested in the toppings. They are the focus of any restaurant discussion. Rarely is anyone interested in the base. But, without that base what we are left with is a sloppy mess.

Open source software provides the base to the technology pizza today and what's more, the UK is great at it.

The first country in the world whose Government created an Open Source first policy for the public sector in 201. In 2024 it is time for a new Government to enable the success of the digital economy in its enterprises and be pro innovation; to ensure the public sector maximises value in its digitalisation and to enable all citizens access to the digital economy.

A refreshed open source policy fit for purpose in 2024 must enhance the status guo and be backed by processes, skills development and a state-of-the-art central public steward with impact across the whole UK economy, setting an exemplar for the world.

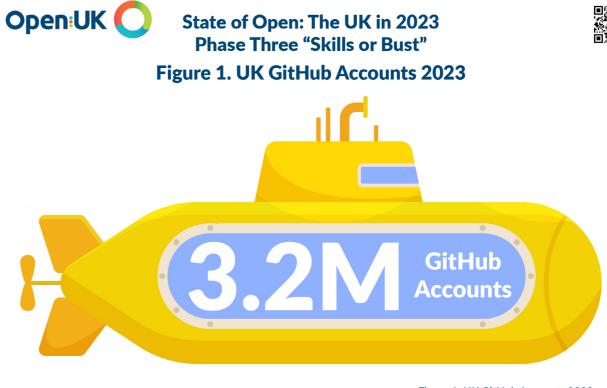
Amanda Brock. CEO, OpenUK

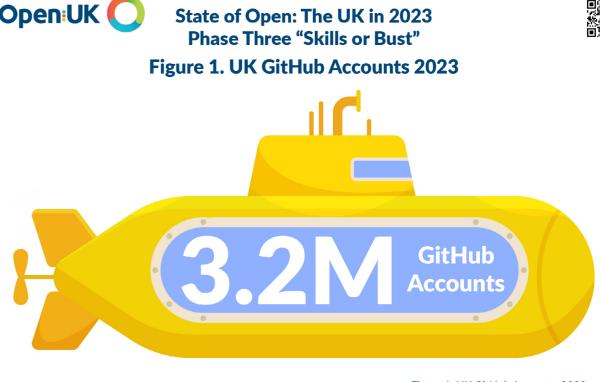
# 2. The status quo in the UK

Today the UK is a global centre of excellence in open source software.

- Source Software developers
- open source software developers
- 27% of UK tech GVA derived from Open Source Software in 2022<sup>1</sup>

In 2024 Open source software has normalised and is the pre-eminent source of software. It is used to build the infrastructure that sits under the digital economy.





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"Firstly OSS  $\rightarrow$  exposure to more diverse groups. This enables people to experiment with different techniques, account for more kinds of challenges etc., creating a very strong evolutionary pressure. This is why OS models have been so competitive with Big Tech, despite fewer resources. The diversity also enables OSS to avoid many of the biases implicit in the very closed-world of Big Tech" Mark Zuckerberg, CEO Meta, 3rd February 2024<sup>2</sup>

• Number 1 in the world by per capita of the population holding GitHub accounts • Number 1 in Europe by number of lines of code contributed and number of Open

Generally number 5 globally by number of lines of code contributed and number of

Figure 1. UK GitHub Accounts 2023 Source: GitHub

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https://openuk.uk/wp-content/uploads/2023/07/FINAL-State-of-Open-The-UK-in-2023-Phase-Two-Part-2.pdf https://machine-learning-made-simple.medium.com/mark-zuckerberg-open-source-is-good-business-c62828f24bf1

"We actively need to go out of our way to find talent from underrepresented communities. And then, it is not only about attracting talent but also about retaining talent. It's about making sure that the culture of the company is inclusive and open. And that we enable groups to be of their own employee resource group, for example, that they're comfortable that they have a safe space to be with people from maybe the same community." Nicolas Vibert, Senior Technical Marketing Engineer at Isovalent

## 3. Problems with the status quo

#### Public sector failing to deliver digitalisation to its potential

Unprecedented open source adoption in the last decade means that open source is the foundation of our national digital infrastructure and critical infrastructure. The unprecedented trajectory of open source software adoption over the last decade has outpaced understanding. Policies and practices are no longer fit for purpose. The UK public sector has done open source and infrastructure badly. This issue is widespread and not specific to the UK but the UK is uniquely positioned to rectify this.

#### The UK is not taking advantage of its status and potential in open technology

- Due to the global focus of open source software, the companies and people working in it are overlooked within their home country, the UK - despite their status.
- Because companies are generally US funded as they scale, and shift to US corporations, making them invisible locally, even if flourishing globally. A great example is the unicorn Snyk.
- The UK's large, globally employed workforce of leadership in open source is internationally employed and views itself as part of the global tech sector. Individuals frequently have little engagement with the geographically local tech sector.
- With over 3.2 m GitHub accounts the traditional way to measure open source developers and 4.5% of the UK population holding these accounts this is more per capita than any country in the world.
- Leaders and Founders leave to work and build businesses in the US, primarily the Bay Area.
- Brexit, delays in policy, and lack of understanding has left the UK with a decade old world-first policy while other countries like the US and Japan have leapt ahead.

## 4. Three asks of a new UK Government

Build from the existing global centre of excellence as number 1 in Europe and 5 in the world to make the UK the recognisable global force in open source, with leading public sector implementation and AI leadership.

## Ask One: Develop Open Source Skills

#### What must be done:

Support an increase in developing open source skills across the UK to build the missing skills of the future UK tech sector; stem talent flight; and boost the UK economy.

**Develop a skilled workforce** who understand open source through supporting contributions to open source thereby building on our existing talent and attracting more talent with those skills - opening global job opportunities to UK-wide workers.

> Open standards, open source and an open economy for technology and digital service skills is vital if the UK wants to move away from the legacy of Big IT failures"

Mike Bracken, Founder Public Digital and Former Executive Director, Digital, The cabinet Office

#### Here's how:

- at scale with investment in appropriate programmes.
- GitHub etc which can be seen by employers across the globe.
- bring high tech salaries into rural economies, boosting those economies.

"Open Sourcing also helps with hiring. If people already use your frameworks prior to joining your company, the training time required to is reduced drastically. Not to mention, you get access to a great pool of pre-screened potential hires." Mark Zukerberg, CEO Meta, 3rd February 2024<sup>3</sup>

# Ask Two: Enable better public sector digitalisation

#### What must be done:

Whilst many countries have built dedicated open source program offices, the UK has not followed this pathway. The advantage of hindsight allows insight into the failings of these functions in other countries where these offices have not achieved their goals. Building a well managed digital infrastructure on open source software requires something more.

#### Here's how:

- technical hygiene and governance of the inevitable open source software.
- Invest in the infrastructure and resources to back this.
- Create a global exemplar that may be replicated.

• Contributing to open source software projects allows individuals to develop handson experience building skills missing today in the UK economy. This could be done

• Individuals' hands-on experience builds a living CV of community contribution on

• This visibility will enable more individuals across the UK, whether in urban and rural areas, to obtain home-based, international jobs. They can remain in the UK and

• Learn from the actions of other countries to learn and facilitate "curation" - the good • Build a world-leading policy with associated procedures and technical understanding

# Ask Three: Enable open innovation in AI

#### What must be done:

Promote innovation and enable competition in AI in the UK through AI openness, to make the UK a leader in Al.

#### Here's how:

- Work with the UK's world leading AI, open data and open source communities to build a better understanding of AI openness - whether called open source, open innovation or open access AI.
- Utilise this deep understanding of the shades of openness to effectively manage risk • and take advantage of the opportunities offered by innovation through openness.
- Build understanding and appropriate controls without stifling innovation but promote and are pro innovation.

## 5. Vision: Giving back control through Open Source

To achieve the UK's potential vision UK political leaders must harness the UK's digital leadership by including open source software, open data and open standards as central to the digital strategy with a world-leading strategy and agile digital policy backed by procedures. To enable this goal to be achieved and to give back control, the UK must follow the example we see in global tech companies.

I know some people have questions about how we benefit from open sourcing the results of our research and large amount of compute, so I thought it might be useful to lay out the strategic benefits here. The short version is that open sourcing improves our models, and because there's still significant work to turn our models into products and because there will be other open source models available anyway, we find these are mostly advantages to being the open source leader and it doesn't remove differentiation from our products much anyway.

Now, more specifically, there are several strattegic benefits. First, open source software is typically safer and more secure, as well as more compute efficient to operate due to all the ongoing feedback, scruitiny, and development from the community. This is a big deal because safety is one of the most important issues in AI. Efficiency improvements and lowering the compute costs also benefit everyone including us. Second, open source software often becomes an industry standard, and when companies standardize on building with our stack, that then becomes easier to integrate new innovations into our products. That's subtle, but the ability to learn and improve quickly is a huge advantage and being an industry standard enables that. Third, open source is hugely popular with dvelopers and researchers. We know that people want to work on open systems that will be widely adopted, so this helps us recruit the best people at Meta, which is a very big deal for leading in any new technology area. And again, we typically have unique data and build unique product integrations anyway, so providing infrastructure like Llama as open source doesn't reduce our main advantages. This is why our long-standing strategy has been to open source general infrastracture and why I expect it to continue to be the right approach for us going forward.

# 6. Key benefits to UK economy by giving back control through **Open Source**

Unleashing the potential of open source for the UK will have a positive impact on the future Future with Next Government Support enabling benefits to the UK:

- the UK equally including rural and urban areas, injecting tech salaries
- Business Barriers removed and talent flight stemmed
- Economic 2021 GDP contribution £46.15bn increased
- Public Sector including NHS, Energy sector efficiencies by improving the digital infrastructure though the efficiencies of a well curated, secure digital environment
- Become a global leader in AI Openness enabling the UK to keep pace with i

# Open:UK



### State of Open: The UK in 2023 Phase Two, Part 1 "Show us the money - The economics of Open Source Software"

Figure 13. Value (GVA) generated by Open Source in the UK in 2022

UK IT software and computer services





https://openuk.uk/stateofopen/ **#openuk #stateofopen** 

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Skills Barriers - build globally employable home-working skilled workforce across



Figure 13. Value (GVA) generated by Open Source in the UK in 2022 Source: OpenUK State of Open Survey 2023





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