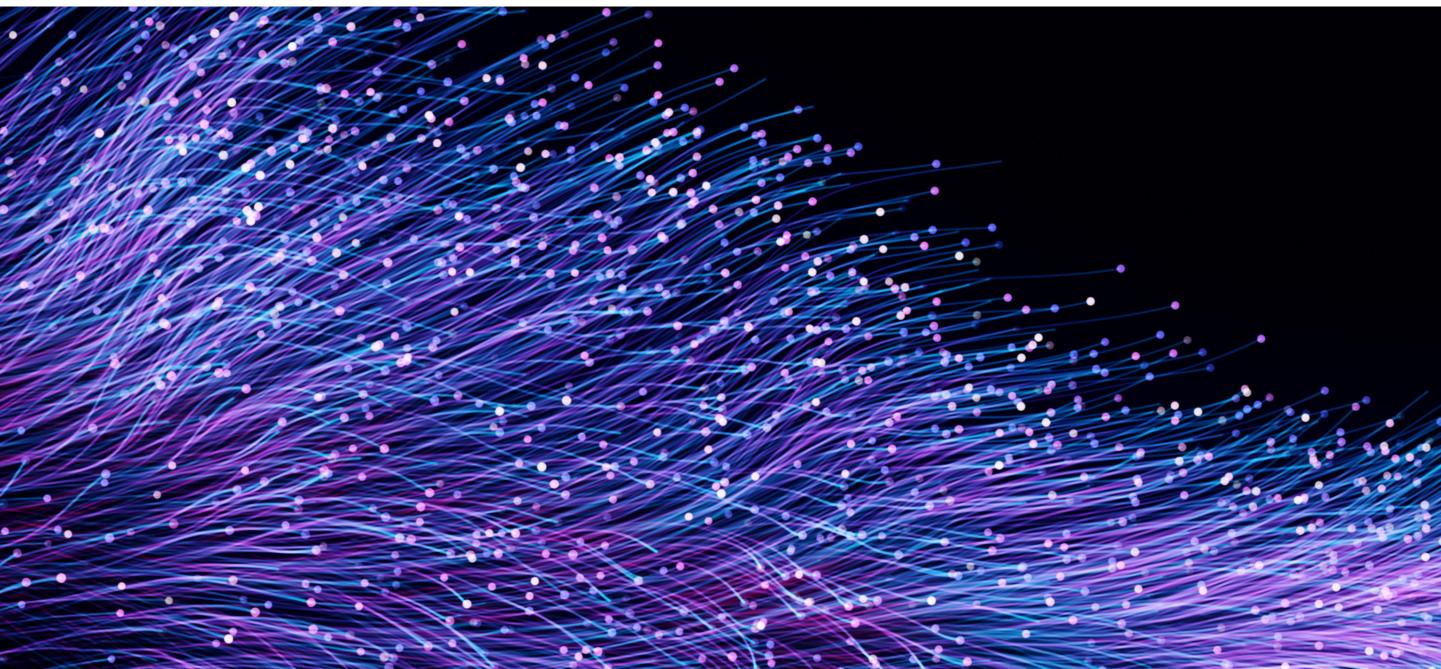


Simplifying AI for industry, using a no code Al platform: Jiva.ai

From idea to action, navigating the complex innovation landscape so that life-changing diagnostics, and other multi-industry applications can be unlocked with AI.





Introduction

Faced with the frustration of knowing that artificial intelligence (AI) could make a huge difference in the diagnosis and treatment of life-threatening conditions, but not knowing quite how to navigate the landscape to bring the idea to market, Dr Chetan Kaher turned to Innovate UK KTN and our Innovation Canvas for assistance.



The Challenge

Fundamentally, the more data, and insights, that can be made available through medical scans, the more accurate the diagnoses from them are likely to be.

Dr Chetan Kaher, in his role as a clinician, knew this all too well. However, he also had a feeling that AI could have a significant part to play in not only speeding up data collection, but in also generating more accurate diagnostics, at a lower cost.

He envisioned doing so would mean reconciling the two seemingly disparate worlds of artificial intelligence and clinical

Who we are

Innovate UK KTN exists to connect innovators with new partners and new opportunities beyond their existing thinking – accelerating ambitious ideas into real-world solutions.

We create diverse connections to drive positive change, and to establish a network of innovators so powerful its ideas will change the world.

medicine. It meant giving clinicians Al tools that were simple enough to use without outside technical assistance, and which were accurate enough to pass the strict regulatory environment and satisfy medical professionals.

Armed with this idea, Dr Kaher and his team reached out to Innovate UK KTN to help turn it into reality, by exploring the perspectives of different specialists. The Innovate UK KTN Complex Systems, Health and Design teams ran an Innovation Canvas training session for 36 clinical entrepreneurs, of which Dr Kaher was one. This explained the purpose of the Innovation Canvas, how to use it, and what the group of clinicians should be doing with it once complete.

In the following weeks, Innovate UK KTN conducted a thought leadership programme in healthcare which brought together medical doctors, including Dr Kaher, and AI suppliers to openly discuss the opportunities available in their fields.

The event helped to improve each group's understanding of the challenges faced by those in healthcare adopting AI, as well as those of AI suppliers developing tools for the healthcare sector. By engaging different parties in open dialogue around specific challenges like this, the programme helped to establish connections and highlight mutual interests and pain points that supported productive collaborations.

Innovate UK KTN run these types of sessions regularly across sectors to open dialogue and

seek commonalities between innovators and those in need of solutions. It is in this way that we hope to stimulate collaboration and mine untapped potential for global benefit.

How AI can prevent incorrect diagnosis

A value proposition session with the Innovation Canvas highlighted a particular problem in prostate cancer diagnostics: specificity of reading scans is particularly low.

This means diagnoses can be wrong, and patients can often be sent for needless invasive biopsies, which have high complication rates (for example, infection, erectile dysfunction, sepsis). The avoidable cost to the NHS is well over £100 million and of course, the health costs to the patients can be insurmountable. The belief was that, implemented correctly, AI offered the best route to realising these savings.



Creating Jiva.ai

drag and drop interface.

Having started with 'a strong feeling' that AI had a big part to play in improving healthcare after working with the Innovate UK KTN Innovation Canvas, Dr Kaher was able to rapidly accelerate towards developing Jiva.ai.

Jiva.ai is a multimodal AI platform solution for easily creating, evaluating, and deploying AI. It aims to allow users such as medical professionals with no coding experience to build their own AI models with any type of data. Instead of relying on an understanding of programming this no code platform instead uses visual ways to direct actions, such as a

The Innovation Canvas Explained

The Innovate UK KTN Innovation Canvas is a simple but highly effective tool designed to help you create value from innovation and identify the changes needed to make your idea succeed.

It provides a framework for assessing the strengths and weaknesses of a specific project, identifying the most urgent challenges to overcome, and prioritising what action to take.

You can work on it as a team or individually to quickly evaluate an existing project, develop an innovative new idea, or inform a funding application.

The Innovation Canvas was also key in changing the direction of the business from a medical product-producing company into one which has produced an industry agnostic AI platform solution, suitable for any datatype, making for much wider application and benefits. Already, Dr Kaher and his team are seeing fantastic results. They have built an AI-led prostate cancer diagnostic tool (JivaRDX with a sensitivity and specificity of over 90%. This is currently undergoing clinical trials with a view to FDA and UKCA accreditation shortly.

They have been able to show how the underlying AI platform of Jiva.ai could save up to 80% on data science costs and times, by handing easy-to-use AI tools to everybody.

To date, Jiva.ai has received numerous grants and acceptance onto further programmes:

- Accepted onto the KQ labs AI accelerator at the prestigious Francis Crick Institute.
- Won two Innovate UK grants in the earlier detection of liver disease and bone fractures.
- Enrolled onto the Innovate UK KTN Investment Readiness Programme.

- Received funding from The Welsh Development bank, Wealth Club, and Consilience Ventures.
- Gained entrance to the prestigious Digital Health London Accelerator, and programs from GovStart, Tech Nation and IBM Hyper protect.
- Won a place on the coveted GBIP programme to introduce AI into manufacturing in India and Canada.
- Joined the NHS Clinical Entrepreneurship programme and was given a first use-case/project in the AI-led diagnosis of prostate cancer from MRI scans amongst other healthcare projects.

In addition, Jiva.ai aims to soon close a pre-Series A round of funding, gain regulatory approval for its JivaRDX and add more AI techniques (NLP, reinforcement learning) into the platform and expand into other sectors.

Innovate UK KTN have been fundamental in Jiva.ai's development, from the value proposition sessions elucidating where we should focus to the investor readiness events helping us to raise capital. Even now, Innovate UK KTN has continued to help us grow by introducing us into multiple new sectors and really allowing Jiva.ai to democratise Al.

Dr Chetan Kaher Co-founder Jiva.ai

Expanding Jiva.ai's Reach

Significantly, the evident ease of use of Jiva.ai meant that it had clear potential to be used across other sectors.

With Innovate UK KTN's extensive partner network, we have been able to introduce Jiva.ai to those in the nuclear and renewable energy sectors, as well as debt management services and marketing optimisation, where the platform is now in use. This has further commercialised the platform, in addition to developing a library of use cases including cybersecurity.

The Innovate UK KTN Quantum team's introduction of Jiva.ai to IBM Quantum Computing at the Hartree Centre has also been particularly fruitful with a clear path to introducing guantum computing into Jiva.ai projects.

Contact Us

From idea development to investor readiness training, to warm introductions with industry-leading businesses, we can help.

We are government funded and non-competitive; we exist to connect innovators with new partners and new opportunities beyond their existing thinking – accelerating ambitious ideas into real-world solutions.

Whatever your current level readiness, whether an idea in its infancy, a developed solution ready to market, or somewhere in between, Innovate UK KTN has the expertise and extensive partner network to help realise your goals.

If you have an AI project you wish to develop, please contact our AI expert caroline.chibelushi@ktn-uk.org.



Caroline Chibelushi

Connecting for Positive Change.

For more information on our work, visit: Innovate UK KTN - AI

Follow us on <u>Twitter @KTNUK</u> Follow us on <u>LinkedIn</u> Website: <u>ktn-uk.org</u>



Innovate UK KTN