UCL and IBM collaborate to develop education programmes that bring new skills to the next generation
UCL students develop projects using Watson Technologies on IBM Cloud to address challenges posed by COVID -19

London 7th April 2020 - UCL, UCL's Industry Exchange Network (UCL IXN) and IBM have collaborated to create the IBM Industry Exchange Network (IBM IXN). This international educational collaboration will develop a new experimental program that enables students in the UK and beyond to work on proof of concept research and development projects utilising IBM technologies such as IBM Cloud, IoT, and AI with real world organisations and clients

As schools and universities switch to online teaching methods to face the unparalleled challenges of COVID-19, the IBM IXN program lends itself well to supporting a new way of learning. Where mentoring and other programs would have traditionally taken place in-person, the online IBM Acclaim tutorials are now being utilised, so that students can gain mentoring and upskill in AI and Cloud all online. Moreover, the IBM Academic Initiative (ibm.com/academic) also offers university students free access to IBM technology, to enable students to get 'hands on' with the technology and develop projects as part of their course. By following this methodology, a student does not need to go to class to learn - all they need is an internet connection and their laptop or device.

Having been a long-term partner of the UCL IXN education programme for almost a decade, this new IBM IXN initiative will allow IBM technologies to reach a number of universities in the UK on high visibility project requirements including industry partners.

One of the latest UCL IXN proof of concept that uses IBM Watson Assistant and Watson Speech services is a customised, immersive social experience to help the users, such as the elderly, feel less socially isolated. This proof of concept is especially timely given the current strict rules on social interactions that have been put into place amid the COVID-19 pandemic, where the general population, including the elderly, may grow increasingly socially isolated. This Proof of concept runs on a range of devices from entry level iOS and android tablets to Oculus VR systems.

People who live on their own are particularly subject to loneliness and social isolation, which can have a serious effect on their health. A _[study released today](#)_, 7th April by IBM's Institute for Business Value on the enduring crisis of loneliness states that 43 per cent of the aging population feeling lonely at least some of the time, which

has severe implications for personal, economic, and societal wellbeing.

This Oculus VR demonstrator powered by Watson technologies is aimed at simulating socially engaging VR scenes. It aims to provide those who are feeling isolated with the opportunity to create a room where they can connect, play and talk to their family members and friends without having to physically interact or move locations. Players are presented with three scenic backgrounds, featuring either a park, a bustling street or a restaurant as well as three avatars that they can choose from. Whether as the host or the guest, players have the opportunity to experience the VR environment by themselves or through Watson Assistant. This application can connect someone who may be feeling isolated, to the outside world in a more immersive way.

Having students work with real organisations with requirements is a core educational gain on the UCL IXN programme. One proof of concept that the UCL students have been working on is an Augmented Reality application for enhancing receptionist capabilities with remote working that can be aligned to many industries. Another example is a Oculus Go VR Proof of Concept which uses Watson voice recognition capability, a part of Watson Speech services, to bring remote 360 training for scenarios that are resource intensive and would traditionally require experts to be physically present. That demonstrator is intended for training the next generation of medical students in the UK. All three of these examples have been open-sourced.

Thousands of students on this programme have worked with industry clients on projects at all academic levels from basic apps development to the latest data science and machine learning algorithms. This teaching model ensures that students not only have the needed industry exposure via IBM clients and partners to apply learned best practices, but also the skills needed by industry. In this teaching model, all IP belongs to their respective clients.

With the digital skills gap set to grow to 500,000 this year*, the IBM IXN programme will provide a new, simple and effective way for industry to innovate rapidly and for students to learn industry relevant skills, with the support of both UCL and IBM expertise.

"Closing the gap on the technology skills shortage is one of the most important issues of our time. We need to ensure students are fully equipped with the right technical and professional skills to participate and flourish in this digital economy," said Naguib Attia, Vice-President, Global University Programs, IBM. "Through this new collaboration we will work closely with UCL to ensure curricula aligns with industry needs and trends, and ensure students are equally prepared for life and a career beyond their degree."

The UCL IXN creators, Dr Dean Mohamedally and Dr Graham Roberts, as well as their entire UCL IXN team, have open-sourced all methods and practices for universities to join and operate their own IXNs. This will enable faculties to create a strategic network of problem-based learning models and collaboration opportunities for all industry sectors. Several IBM partner universities are already a part of this UK government recognised teaching methodology.

Commenting on the collaboration, Dr Mohamedally at UCL, he said: "Being able to offer our students as much as we possibly can, beyond academic learning, is our top priority. From an industry perspective, this new IBM programme will enable students to develop the next generation of prototypes supporting their interoperability, efficiency and innovation streams with IBM technologies and partnerships. The students will gain by using technology that helps to shape and develop their innovation, creativity and inspiration in problem solving for real user needs. We are incredibly excited to be working with IBM to help equip our students with the skills they need to go on to **change the world** around them. We hope to see many students publish their work through this programme."

Dr Mohamedally is the first of several teaching academics in Computer Science education that will join an IBM

IXN advisory panel in shaping processes and pedagogical design. This initiative will enable IBM's business to drive education with a view of students learning best practices with IBM technology and real customers, both existing and new, at an international level to equip them with the right skills for the jobs of the future.

*Europe's Digital Progress Report 2017 - https://ec.europa.eu/digital-single-market/en/news/europes-digital-progress-report-2017

Notes to Editors:

About IBM:
https://www.ibm.com/about/covid19-business-solutions

About UCL - London's Global University:
UCL is a diverse community with the freedom to challenge and think differently.

Our community of more than 41,500 students from 150 countries and over 12,500 staff pursues academic excellence, breaks boundaries and makes a positive impact on real world problems.

We are consistently ranked among the top 10 universities in the world and are one of only a handful of institutions rated as having the strongest academic reputation and the broadest research impact.

We have a progressive and integrated approach to our teaching and research – championing innovation, creativity and cross-disciplinary working. We teach our students how to think, not what to think, and see them as partners, collaborators and contributors.

For almost 200 years, we are proud to have opened higher education to students from a wide range of backgrounds and to change the way we create and share knowledge.

We were the first in England to welcome women to university education and that courageous attitude and disruptive spirit is still alive today. We are UCL.

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