LSE public lecture

Digital Capital: where next for London in the tech revolution?

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Good evening. Thank you so much for the kind introduction, Max. And thank you all for coming. It's a pleasure to be here.

So, I am here to talk you about what's next for London in the Tech Revolution.

I'm afraid you're witnesses to my first academic 'lecture' - I am much more used to pitching new mobile applications or companies thinking of moving to the UK.

My team - some of whom are here in the audience - were so worried about the sort of academic grilling I would get that they gave me a massive reading list this weekend, including Foucault and Rousseau.

I did what I always do when writing an essay like this: listen to music and make cheese on toast.

Before I start - a little about Tech City.

We're a bit of a hybrid. We sit between policymakers and the digital industry. We are based in Shoreditch in East London, running programmes for businesses and entrepreneurs but we listen and learn from the whole of the UK. We also beat the drum nationally and internationally for entrepreneurship.

It's an amazing vantage point and a privileged one - to be able to see and document what's going on, and think about the implications. And like my role, this is ALL about dialogue. And as such, I'm really looking forward to having more of a conversation with you all at the end. Just don't ask me to fix your WIFi! or IT!

So this unique organisation is involved in a fascinating and multi-layered conversation. This means we can draw some exciting conclusions about the impact - and future - of digital innovation.

But first. Who here was born outside London?

I thought so.

I first moved to London with my mother at the age of 13 from the tiny Mediterranean island of Gozo. As we drove through the city for the first time, I was mesmerised. My eyes were glued to

the car window, looking at the staggering architecture, the river, the bright lights of the West End. I was dazzled by it all. And I still am!

And little did I know at the time that the big bang was well underway, paving the way for London to become a global financial capital.

From the social revolutions of the 1960s to the anti-establishment foundations of Punk to the creative industries of fashion, music, advertising and film, all across the capital, this city's commercial growth has always been defined by eccentricity, courage and the stubborn refusal to conform.

Strange to think that Brits have the reputation for being compliant - the civil servants of the world they say! But that's not my experience and I'm not sure it's been yours either.

London is now in the midst of another rebirth. Five years ago there was no way this city could be talked about in the same breath as Tel Aviv or Palo Alto. But now it is, and all the time - London is becoming a world leader in technology, entrepreneurship and digital innovation.

In the first six months of 2015, over £800M of investment went into the London's digital firms, ranging from e-commerce to digital marketing companies.

Since 2010, the number of digital firms in East London's Tech City alone rose from 200 to over 3000 according to some estimates. Today, more than 200K people work in digital technologies in the 12 boroughs of inner London.

This is not just an Old Street, silicon roundabout phenomenon. Kings Cross, Croydon, Bermondsey, Haggerston, Canary Wharf, Camden, Notting Hill all boast a cluster of startups in their own way.

London is home to some of Europe's most innovative companies.

Here are just some examples.

In travel and tourism: We have Onefinestay, where instead of a hotel, you can book to stay a home or apartment in cities around the world. Last week it raised more than $40M and has six times more room inventory than the Ritz, The Plaza, George V and Hotel Bel-Air combined. And it's just 5 years old.

In the area of Finance, or FinTech: Transferwise enables you to transfer money across country borders, doing so at up to a tenth of the normal bank costs - started by two Estonians. They recently had a funeral party for bankers as one of their marketing pranks. And they're just 4 years old.

- Then there's Funding circle, a peer-to-peer lending platform, which enables you to lend money to businesses in exchange for a healthy return. Its latest market valuation is estimated at $1Bn - just like TransferWise.

Then there's parking or the sharing economy to many of you: Just Park lets you rent out your driveway for a daily rate you think is fair. They have even been crowd funded, raising over GBP 3.7M in 30 days, from 2,900 investors. St Pancras church on the Euston road has made nearly £70,000 renting its driveway last year.

Even dog-owning: With Borrow my Doggy, you can borrow a dog from someone who will be away on holiday or needs support walking their pet. I'm not kidding, it's got me out of many binds with my children.

A wide variety of businesses providing different services for different user needs through technology - all based here in London - all growing fast and creating jobs.

And all of them have a revolutionary mindset at their core, challenging the status quo - creating viable business models in their own creative vision.

A recent Nesta report on Cities said: "Not only do they produce the jobs of tomorrow, but they are increasingly perceived as a symbol of civic vitality".

A symbol of civic vitality - just hold that thought for a second...

Digital ecosystems don't just form by accident. A number of factors pave the way for their incubation.

Affordable property alternatives. Various business and mentorship networks, accelerator programs, universities, the London Stock Exchange all working together in an effective and coordinated fashion. The Government's introduction of policies to stimulate investment and attracting the best and brightest talent such as tax breaks for early-stage investment and R&D. Plus a strong pay it forward mentality and our consistent beating of the drum for entrepreneurship and growth of the UK's digital economy.

This is why the role of national government and city hall is so important. Increasingly city government needs to understand what it must do to better enable innovation and entrepreneurship.

But it's not just about building BIG digital companies. Yes that's essential for UK plc and the Chancellor's Red Box tomorrow. And I know many of you will be watching the latest budget.

But I wouldn't do this job if it was JUST about counting GDP. Like many of you, I care about technology because of its possibilities, including what it can do to make a city easier to live in. Part of people's attraction to London is London itself and how it behaves as a city.

So how can we improve the city we live in? How will we stay at the forefront of digital innovation at the same time as making London as responsive as possible to the needs of its creators, makers and communities -- the VERY essence of a city culture.

Well, here's one way to look at this.

I want you to start thinking of London as a platform - a site of continuous re-invention.

A shared laboratory for digital innovation. 'Civic Vitality' could be secured if and when we start seeing the city as a platform.

But before I get specific, let's take a step back again, and remind ourselves how technology is changing us at the macro level and how to re-imagine things in the digital age.

There has been a fundamental shift in how we order the social world. As Manuel Castells wrote nearly two decades ago, technology and digitised social spaces are creating a more decentralised and networked public sphere.

What do I mean by that? Twitter, YouTube, Wikipedia, these platforms have moved us to a position where good ideas and consensus can surface via the crowd. Even funded via the crowd or even discovered via the crowd.

The spaces these networks create and the innovators that build on them, are changing the very fabric of our society.

Never before have people's individual voices been so powerful -- PRECISELY because they can be amplified and broadcast through technological platforms. The fidelity of political rhetoric is being tested in real time for example.

Our capitalist, democratic experiment is being digitally re-imagined as I speak.

HOWEVER, if you look closely at the last decade's fastest growing tech companies, you'll notice they all have something in common - they're ALL platforms -- or companies that have morphed into platforms.

As you probably know, Google really took off when it opened up its search platform to let people bid on keywords.

YouTube wasn't the first video hosting site, but it was the first to open itself up as a platform.

Facebook wasn't the first social network, but it was the first that viewed itself as a platform. I remember when forging a pan-European deal between Orange and Facebook in Paris in 2006. I asked the representative why he joined the company. He said we want to be like electricity - a platform where people, creators and developers can plug into our data - APIs (Application Protocol Interface) to non-techy people like me - and build new services and applications. It was a new innovation model. And since then we've seen the Apple app store and others develop such an idea.

So what would a city look like, what would London look like, if it were viewed as a platform in the same way?

London as an idea is not an abstraction. It encompasses physical objects like Buckingham Palace, Hyde Park, black cabs and the tube.

But it also exists in your phone, on your laptop and in the urban wisdom you share with others over digital networks.

And just like its physical architecture, its digital architecture can be disrupted, reinvented and repurposed.

Here's a brief analogy for how to think about this. And you may have come across this before.

Everyone used to ask, 'How should we change books to read them digitally?' But the more interesting question is, 'How does digital change my engagement with books and reading?'.

If you take a set of encyclopedias and ask, "How do I make this digital?" you get the Microsoft Encarta CD. Remember those? Probably not, looking at the average age profile of the audience.

Like minidiscs, I think we'd all prefer to forget them.

But if you ask, "How can digital change our engagement with encyclopedias?" Then you get Wikipedia...just don't quote them in your academic papers!

Also along the same lines, we could take a city and ask "How can we make it more digital?" And we might get smart toilets, bins and elevators.

But it's much better to ask, "How does digital change the way the way I engage with my city?"

Then we get closer to exploiting the full potential of technology in a civic, urban environment where human beings HAVE TO come first.

London should be our shared laboratory. We can be pioneers, reform and recreate the ways in which we want our city to function.

Cities around the world are already doing some incredible things to harness technology for the benefit of civic life. Here are just a few examples, 2 of which are from Nesta's recent CITIE report:

As reported by Jemima Kiss in the Guardian, in a small city outside Granada, Twitter is being used as the central communication tool for governing. The mayor spent 16 years exploring different technologies that could make the small city the best it can be. They are using the platform to make doctor's appointments, report crimes and to rate social programmes and their effectiveness.

Meanwhile in Singapore, the Ministry of Transport monitors traffic across the city in real-time and THEN acts on it. They have GPS for thousands of buses and taxis. Information is gathered 24/7 and reported back through public boards, websites, mobile apps & radio to prevent overcrowding.

OK, sounds familiar. But here's the thing -- based on that information, traffic lights are adapted accordingly in real-time. That's REAL-TIME DATA they're acting upon to make the city even more productive at every given second.

In Seoul, they've launched Sharehub as a way to help optimise the city's public assets to foster more engagement. Over 700 public buildings have been opened during idle hours for events and meetings, all bookable through the use of technology.

Reykjavik meanwhile has a platform to propose and prioritise new ideas for the city. Over 60% of the city's population have participated already. 257 ideas have been formally reviewed, with 165 accepted and implemented since launch.

In Panama City, AND THIS IS MY FAVOURITES, to tackle road depreciation and damaging vehicles, small sensors were fitted in potholes around the city. Each time a driver ran over a sensor, a tweet was sent to City Hall alerting them with the location of the hole. Pothole politics in real-time, right?

Estonia, internationally renowned for its early adoption of digital platforms and services, has worked to ensure that its capital, Tallinn, is one of the most connected cities in the world. Free high speed internet is available in over 30 major public spaces.

With London set to reach a population of 10 million people by 2031 - that's in 16 YEARS TIME - we just can't carry on as we are, we have to be even more efficient and resourceful.

Housing, transport, health, education, infrastructure - all will have to bear the weight of new souls arriving by the week.

The capital itself must be systematically re-imagined in order to tackle the issues we face.

It's already happening incrementally.

Liam Maxwell, the UK Government's first and current chief technology office, put it this way. He said:

"We're building a digital government, based on user needs. Everything we do is based on digital."

This Government, the GLA and local authorities are increasingly providing e-services; capturing data and information so it can better manage its priorities.

But it must go further.

The more we feel engaged with our city, the more we will feel - collectively - responsible for it. It's a virtuous circle, with technology supplying the fuel for that acceleration.

One city that is doing this already is Tel Aviv.

In 2013, Tel Aviv launched a digital residents' card which enables a two-way direct relationship between the citizen and the municipality. It was created to get government to embrace Israel's well known startup culture.

Through smart cards issued to residents (most likely to be an interim solution until everyone has smartphones), the city is able to gather information from its citizens while its citizens have the opportunity to help shape policy or more practically, get information about road closures or whether places at their local cinema are still available.

It's a relationship built on a shared vision of what the city can be. Today in Tel Aviv about 40% of residents have signed up and are engaging with the platform.

It sounds like a consumer service, right? That's the point. Engagement with local government shouldn't feel like a chore. The easier it is to engage, the more we would want to contribute. Right?

Technology means cities and their governance structures can no longer be seen as untouchable entities. They must be connected to their citizens directly, seamlessly.

I'm not suggesting we launch a resident ID card and I know that the examples I gave you are from smaller cities, but more that we get into the mindset of a platform, setting out a virtual terms of service between ourselves and the city.

There is huge potential for what I'm calling 'a digital social contract' between city and citizen.

The mutually accepted and shared understanding of rights, responsibilities and delivery.

This digital social contract is premised on the agreement that the city will do more for us in exchange for our active and passive contribution. We need to approach this openly, if we expect our FUTURE to be different from our PAST.

As a result, imagine the following:

What if school classrooms in the city could be used on weekends to deliver educational workshops/cultural events and were available for public use?

What if the city ran competitions for providing services that are deemed too expensive or too complex to deliver - offering a budget as a 'prize' for whoever comes up with an innovative way to deliver them for less?

What if local communities could crowd fund ideas for their own local areas which could then compete for match funding from the local council?

What if citizens carried early warning systems so that when air pollution gets to dangerous levels, city planners were notified in real-time.

What if public institutions ran monthly hackathons to get people to propose solutions for its most pressing problems, inviting anyone to show up?

When this country experienced some of the worst floods in its history, we organised a hackathon at Google Campus together with the Environmental Agency -- who at the time released new datasets, so the community could build new apps and solutions.

The impact was not just inspirational, but it also helped launch a number of new solutions to help flood victims.

We all need to become more conscious of the technology we carry around, to negotiate its functionality and think about how it can put to good use for the benefit of everyone. The more data we're willing to give, the more intelligence is collectively gained to create projects aimed at improving the urban experience.

To quote Tom Steinberg, CEO of My Society: "Good Governance and Good Policy are inextricably linked to Digital."

Which brings me to the point of data - data is the lifeblood of urban innovation.

All of us need to recognise that putting our data to use in a meaningful way can improve our lives. But city officials have a part to play. They must create the appropriate system to ensure it's accountable use.

Think about how much we trust Facebook with our personal thoughts, locations, images and feelings. Yet we seem to baulk when we think of public institutions housing far less emotive but nonetheless vital information.

That has to change if we want to make our city move from something that's out there, to something we can mould, reshape and creatively re-imagine.

This a complex interrelationship, I know. But let's take a great example.

Think for a second about how we've improved our London transport experience through the use of smart data.

We've gone from from complex printed schedules on bus stops, to text messaging and the latest incarnation, CityMapper. I'm sure some of you might have it.

Through CityMapper, we engage in a social contract of digital trust with the provider. You know where I am, in return you provide me with actionable intelligence on the quickest and cheapest route to my destination.

These GPS-enabled applications are made possible through the use of datasets opened by the Greater London Authority, Transport for London and Placr who are running the transport API.

Building new services such as these over and above these datasets and APIs is critical to London's position as a global innovation center.

The GLA and its London Smart Board have done a great job in launching The London Data Store, which contains over 800 datasets, varying from employment to traffic patterns where demand is highest.

The access and use of these datasets to programmers, coders, developers and digital businesses MUST BE A PRIORITY FOR THE NEW MAYOR.

Not only is the use of aggregated data socially beneficial, but also financially smart.

According to Eddie Copeland of Policy Exchange, local authorities could save up to £10 billion by 2020 through crowd-shared and collaborative use of technology and data.

In a connected society, where I can converse with government directly and can feedback purposefully into it, I am far less likely to feel ostracised. I feel part of something bigger than me, which can support me.

The technology is here and is improving every day. And the people are adopting it and are ready to use it. Take the millennial generation. They are a digitally engaged demographic with a strong sense of moral purpose. And their tools of engagement are mobile phones, laptops and tablets.

What we need to put in place is connected thinking throughout government, national and local, so that we get the very best out of it.

The time is right for London to experiment with this. London already boasts 'The Open Data Institute', which is doing some amazing work around datasets. Soon, it will be joined by the Alan Turing Institute - an institute dedicated to the world of data science and the application of algorithms.

Boris Johnson has already setup the London smart board and launched London's Data Store.

We must continue building on this and London's reputation as a world leader in digital technology and innovation, banging that drum all around the world to attract the best and brightest.

The stage is set for the next mayor to ramp this up to the next level.

City representatives must understand how new business models emerge and how they can shape existing laws and frameworks. They need to experiment, iterate and optimise: the rite of passage for all great digital disrupters.

Remember the first airport to offer WIFI, or adopt smartphone boarding cards, I want London to be first to launch and test new citizen services.

In addition to thinking of London as a platform, capable of generating and sharing data to create a laboratory for change, the Mayor's team must have strong representation from across the technological spectrum.

From a Chief Digital Officer (CDO) responsible for the strategy, to a head of Data, responsible for generating actionable insights and trends, to a head of Developer Relations, responsible for a team of evangelists, promoting the use of data, to programmers, designers and businesses, and the people who are interested in building applications and services to plug gaps.

We need to move the city from the digital cloud into the hands of the individual and City Hall.

To conclude, there is no doubt that London is at an inflection point. Record levels of investment, digital job creation, publicly available datasets - the social fabric of our shared urban platform is rapidly evolving.

And you are ALL at the helm.

And like the origins of Tech City before it, the capital can be a global example of what CAN happen when entrepreneurial culture, disruptive thinking, and a pay it forward mentality collide. The results could be truly revolutionary.

These are fascinating times for the capital but in order to stay ahead, we need to continue to foster the right conditions for growth and innovation. And just as importantly, to continue to spark the creative disruption that lies at the heart of the Tech City success story.

To leave you with a potent thought: you have more computing power in your pocket than what it took to land the Apollo on the moon. That power can unleash the potential for change in our urban environment, with the capital city emerging as our platform, our shared laboratory.

We are on the cusp of the second phase of London's digital revolution - a human revolution, with technology providing the tools for acceleration.

And we all have a part to play. The city is ours.

Thank you very much for listening and thank you for your time.

END