

# PM speech to the UN General Assembly: 24 September 2019

Mr President, Your Excellencies, Ladies and Gentlemen, faithful late night audience.

It is customary for the British Prime Minister to come to this United Nations and pledge to advance our values and defend our rules, the rules of a peaceful world.

From protecting freedom of navigation in the Gulf

To persevering in the vital task of achieving a two-state solution to the conflict in the Middle East.

And of course I am proud to do all of these things.

But no-one can ignore a gathering force that is reshaping the future of every member of this Assembly.

There has been nothing like it in history

When I think of the great scientific revolutions of the past – print, the steam engine, aviation, the atomic age – I think of new tools that we acquired but over which we – the human race – had the advantage,

Which we controlled.

That is not necessarily the case in the digital age.

You may keep secrets from your friends, from your parents, your children, your doctor – even your personal trainer – but it takes real effort to conceal your thoughts from Google.

And if that is true today, in future there may be nowhere to hide.

Smart cities will pullulate with sensors, all joined together by the “internet of things”, bollards communing invisibly with lamp posts

So there is always a parking space for your electric car,

so that no bin goes unemptied, no street unswept,

and the urban environment is as antiseptic as a Zurich pharmacy.

But this technology could also be used to keep every citizen under round-the-clock surveillance.

A future Alexa will pretend to take orders.

But this Alexa will be watching you,

Clucking her tongue and stamping her foot

In the future, voice connectivity will be in every room and almost every object:

your mattress will monitor your nightmares; your fridge will beep for more cheese,

your front door will sweep wide the moment you approach, like some silent butler; your smart meter will go hustling – if its accord – for the cheapest electricity.

And every one of them minutely transcribing your every habit in tiny electronic shorthand,

Stored not in their chips or their innards – nowhere you can find it,

But in some great cloud of data that looms ever more oppressively over the human race

A giant dark thundercloud

waiting to burst

And we have no control over how or when the precipitation will take place

And every day that we tap on our phones or work on our ipads – as I see some of you doing now –

We not only leave our indelible spoor in the ether

But we are ourselves becoming a resource

Click by click, tap by tap.

Just as the carboniferous period created the indescribable wealth – leaf by decaying leaf – of hydrocarbons.

Data is the crude oil of the modern economy

And we are now in an environment where

We don't know who should own these new oil fields

We don't always know who should have the rights or the title to these gushers of cash

And we don't know who decides how to use that data

Can these algorithms be trusted with our lives and hopes?

Should the machines – and only the machines – decide whether or not we are eligible for a mortgage or insurance

Or what surgery or medicines we should receive?

Are we doomed to a cold and heartless future in which computer says yes – or computer says no

With the grim finality of an emperor in the arena?

How do you plead with an algorithm? How do you get it to see the extenuating circumstances

And how do we know that the machines have not been insidiously programmed to fool us or even to cheat us?

We already use all kinds of messaging services that offer instant communication at minimal cost.

The same programmes, platforms, could also be designed for real-time censorship of every conversation, with offending words automatically deleted, indeed in some countries this happens today.

Digital authoritarianism is not, alas, the stuff of dystopian fantasy but of an emerging reality.

The reason I am giving this speech today is that the UK is one of the world's tech leaders – and I believe governments have been simply caught unawares by the unintended consequences of the internet;

A scientific breakthrough more far-reaching in its everyday psychological impact than any other invention since Gutenberg

And when you consider how long it took for books to come into widespread circulation

The arrival of the internet is far bigger than print

It is bigger than the atomic age –

But it is like nuclear power in that it is capable of both good and harm – but of course it is not alone

As new technologies seem to race towards us from the far horizon

We strain our eyes as they come, to make out whether they are for good or bad – friends or foes?

AI – what will it mean?

Helpful robots washing and caring for an ageing population?

or pink eyed terminators sent back from the future to cull the human race?

What will synthetic biology stand for – restoring our livers and our eyes with miracle regeneration of the tissues, like some fantastic hangover cure?

Or will it bring terrifying limbless chickens to our tables.

Will nanotechnology help us to beat disease, or will it leave tiny robots to replicate in the crevices of our cells?

It is a trope as old as literature that any scientific advance is punished by the Gods

When Prometheus brought fire to mankind

In a tube of fennel, as you may remember, that Zeus punished him by chaining him to a tartarean crag while his liver was pecked out by an eagle

And every time his liver regrew the eagle came back and pecked it again

And this went on for ever – a bit like the experience of Brexit in the UK, if some of our parliamentarians had their way.

In fact it was standard poetic practice to curse the protos heurtes – the person responsible for any scientific or technical breakthrough

If only they had never invented the ship, then Jason would never have sailed to Colchis and all sorts of disasters would never have happened

And it is a deep human instinct to be wary of any kind of technical progress

In 1829 they thought the human frame would not withstand the speeds attained by Stephenson's rocket

And there are today people today who are actually still anti-science.

A whole movement called the anti-Vaxxers, who refuse to acknowledge the evidence that vaccinations have eradicated smallpox

And who by their prejudices are actually endangering the very children they want to protect

And I totally reject this anti-scientific pessimism.

I am profoundly optimistic about the ability of new technology to serve as a liberator and remake the world wondrously and benignly,

indeed in countless respects technology is

already doing just that.

Today, nanotechnology – as I mentioned earlier – is revolutionising medicine by designing robots a fraction of the size of a red blood cell,

capable of swimming through our bodies, dispensing medicine and attacking malignant cells like some Star Wars armada

Neural interface technology is producing a new generation of cochlear implants,

allowing the gift of hearing to people who would not otherwise be able to hear the voices of their children.

A London technology company has worked out how to help the blind to navigate more freely with nothing more than an app on their smartphones –

New technologies, produced in Britain, helping the deaf to hear and the blind to see.

And we used to think that printing was something you did to run off a boarding card

Now a British company has used 3D printing to make an engine capable of blasting a rocket into space.

In African countries, millions of people without bank accounts can now transfer money using a simple app;

they can buy solar energy and leap in one transaction from no electricity to green power.

And new advances are making renewable energy ever cheaper, aiding our common struggle against climate change.

Our understanding of the natural world is being transformed by genome sequencing.

The discovery of the very essence of life itself

The secret genetic code that animates the spirit of every living being.

And allows medical breakthroughs the like of which we have never known.

Treatments tailored to the precise genetic makeup of the individual.

So far, we have discovered the secrets of less than 0.3 percent of complex life on the planet,

Think what we will achieve when – and it is a matter of when – we understand 1 or 2 percent, let alone 5 or 10 percent.

But how we design the emerging technologies behind these breakthroughs – and what values inform their design – will shape the future of humanity. That is my point to you tonight my friends, my Excellencies –

At stake is whether we bequeath an Orwellian world, designed for censorship, repression and control,

or a world of emancipation, debate and learning, where technology threatens famine and disease, but not our freedoms.

Seven decades ago, this General Assembly adopted the Universal Declaration of Human Rights with no dissenting voices,

uniting humanity for the first and perhaps only time behind one set of principles.

And our declaration – our joint declaration – upholds “freedom of opinion and expression”,

the “privacy” of “home or correspondence,”

and the right to “seek...and impart information and ideas”.

Unless we ensure that new technology reflects this spirit, I fear that our declaration will mean nothing and no longer hold.

So the mission of the United Kingdom and all who share our values must be to ensure that emerging technologies are designed from the outset for freedom, openness and pluralism,

with the right safeguards in place to protect our peoples.

Month by month, vital decisions are being taken in academic committees, company boardrooms and industry standards groups.

They are writing the rulebooks of the future, making ethical judgements, choosing what will or will not be rendered possible.

Together, we need to ensure that new advances reflect our values by design.

There is excellent work being done in the EU, the Commonwealth, and of course the UN,

which has a vital role in ensuring that no country is excluded from the wondrous benefits of this technology, and the industrial revolution it is bringing about.

But we must be still more ambitious.

We need to find the right balance between freedom and control; between innovation and regulation; between private enterprise and government oversight.

We must insist that the ethical judgements inherent in the design of new technology are transparent to all.

And we must make our voices heard more loudly in the standards bodies that write the rules.

Above all, we need to agree a common set of global principles to shape the norms and standards that will guide the development of emerging technology.

So – here’s the good news – I invite you next year to a summit in London, a wonderful city, where by the way it is not raining 94 per cent of the time, and where at one stage – when I was Mayor of London – we discovered that we had more Michelin starred restaurants even than Paris. The French somehow rapidly recovered – by a process that I wasn’t quite sure was entirely fair.

But we still have by far, in the UK, by far the biggest tech sector – fintech, biotech, meditech, nanotech, green tech – every kind of tech – in London – the biggest tech sector anywhere in Europe, perhaps half a million people working in tech alone.

I hope you will come there, where we will seek to assemble the broadest possible coalition to take forward this vital task

Building on all that the UK can contribute to this mission as a global leader in ethical and responsible technology.

If we master this challenge – and I have no doubt that we can – then we will not only safeguard our ideals,

we will surmount the limits that once constrained humanity and conquer the perils that once ended so many lives.

Together, we can vanquish killer diseases, eliminate famine, protect the environment and transform our cities.

Success will depend, now as ever, on freedom, openness and pluralism,

the formula that not only emancipates the human spirit, but releases the boundless ingenuity and inventiveness of mankind,

and which, above all, the United Kingdom will strive to preserve and advance.

Excellencies, Ladies and Gentlemen, thank you for your kind attention.