

**The Royal Society of Edinburgh  
supported by the Edinburgh Futures Institute**

**Lecture**

***Our Age of Discovery:  
Navigating the Storms of our Second Renaissance***

**Professor Ian Goldin  
Professor of Globalisation and Development, University of Oxford  
and Founding Director of the Oxford Martin School**

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Report by Matthew Shelley

*The Renaissance was a period of unprecedented change that brought the rapid spread of new ideas and technologies, challenging the established order. Professor Goldin believes there are strong parallels with the transformations taking place today. One of the most important lessons we can learn from the new Renaissance is that it brings immense dangers as well as far-reaching benefits and sets the stage for a battle of ideas in which there is no guarantee that progressive thinking will prevail. The talk was introduced by RSE Chief Executive Dr Rebekah Widdowfield, who also welcomed Professor Lesley McAra, Director of the Edinburgh Futures Institute, who spoke about how Higher Education and the Institute can help us respond to the challenges.*

Things have never been better but, according to Professor Goldin, we have good reason to feel anxious about the future.

Thirty years ago, the Berlin Wall came down and the worldwide web was born, ushering in an era of globalisation and technological change that is faster and more far reaching than anything in human history. The transformation has touched every area of life and seen the swift emergence of new economic powers such as China and India.

The impacts of globalisation are mixed, and a source of huge uncertainty and we are struggling to understand what the future might hold. History may provide us with clues according to Professor Goldin – not because it repeats itself but because it “rhymes”, offering insights into how things could evolve.

In just 70 years, the Renaissance turned Europe from a backwater into the most advanced place on the planet. He said: “It was a revolution in all respects”. Underpinning this was the way that humanity came to be seen in entirely new ways, as was encapsulated by Leonardo da Vinci’s Vitruvian Man.

Traditionally the written word had been the preserve of a minute elite that was dominated by the church and consisted of a few thousand hand-written manuscripts, largely in Latin. The coming of the printing press saw 50 million books produced in the

first half century and creating an information revolution in a multitude of languages, that encompassed everything from science and medicine to religion and art.

One consequence was that the established order felt threatened, another was that the sense of place became more important. There was an acceleration in urbanisation, and cities such as Florence became magnets for artists and scholars. Muslims and Jews were welcome in Florence during the Renaissance as it reached across traditional cultural, religious and other boundaries. Like today, said Professor Goldin, it was a story of curiosity, migration, urbanisation, intellectual and technological change.

The connectedness of the contemporary world has generated a similar upsurge in new ideas and brought a hunger to learn – and one that is fed with new ways to find and assimilate information. There are now 4.5 billion more literate people than when the Berlin wall came down and they connect using new technologies including five billion smart devices.

Among the benefits of globalisation have been the steep decline in infant mortality and a 20-year increase in average life expectancy. Another is its capacity to unlock human talent. Genius exists everywhere but in the past the people who had the chance to shine were generally from among the white, wealthy, Western and male. Globalisation increasingly empowers brilliant people, with transformative ideas, to emerge from the streets of Sao Paulo and Soweto.

But progress today, according to Professor Goldin, comes more from team enterprise than individual effort and it thrives on diversity of gender, discipline and cultural perspective. This, he said, explains why the most dynamic cities (such as London) are places with large, energetic and ambitious migrant populations.

On the downside, Professor Goldin said: “What we learn from the Renaissance is that these moments of extraordinary creativity and discovery are very risky”. There were unexpected consequences such as the spread of disease as ships passed to and from the New World. There are also the political responses of people who see a corrupt establishment enriching itself while they feel abandoned. In the Renaissance, this brought the rise of divisive and reactionary figures such as Savonarola, who he described as “the Trump of the 1490s”. The extremist republic Savonarola established in Florence was a place of deep intolerance.

Further political trauma followed with the Reformation, Counter Reformation, the Inquisition and vast loss of life during decades of religious warfare. “It is important to understand,” said Professor Goldin, “how these periods of rapid change can have pushback unless they are effectively managed.” Reaction to the Renaissance brought a period in which scientists and other people of expertise were denounced and persecuted.

Professor Goldin said that information revolutions become battles of ideas and it is essential that everyone engages, or some very bad ones will prevail – progress will not happen without commitment and effort. Relying on the evidence to speak for itself will not work as the default is to reject progress. Right now, it is essential to contest the ideas being spread by everyone from jihadists and far-right activists to climate change deniers.

Beyond the battle of ideas there is also an urgent need to address the underlying causes of anxiety. Globalisation has a “bad and ugly side to it” and “while the walls are coming down between societies they are going up within them”. This, said the professor, is because the faster progress becomes the quicker some people can be left behind.

At the same time the failures of the highly paid experts who run our banks to anticipate or mitigate the impacts of the financial crash explain why many people no longer trust authority.

The forces that spread the good of globalisation can also spread the bad. Modelling at the Oxford Martin School has shown how the spread of swine flu from Mexico City to 160 countries within 30 days matched patterns of airline travel. This raises the question of whether we can have open borders and societies without being more vulnerable.

Artificial Intelligence and mechanisation threaten to take 40% of UK and up to half of US jobs in the next 20 years. Professor Goldin said that while the issue is about robots rather than foreigners, there is a strong correlation among those who feel their livelihoods are at risk, and political support for the protectionist tendencies of Trump and Brexit. A fundamental change is needed in the way we think about work over the next 20 to 30 years as anything rules based is mechanised.

We also must address the impact of population growth. Larger, richer societies that consume more food, energy and goods can have a catastrophic effect on the climate and environment. Distribution is also a concern – is there enough for “everyone to have a good time?” Regulation is needed as the market alone cannot regulate or control supply effectively or rationally, said Professor Goldin, as is demonstrated by the number of times we have hunted species to extinction for food or other products. Likewise, governments often focus on short-term gain.

“Every choice we make impacts on other people and on the planet,” he said before adding: “the only way we can safeguard our own futures is by thinking more about each other”. Isolationism is not a solution because we are entangled at every level and creating barriers simply inhibits progress.

But there is reason for optimism, according to Professor Goldin, because, unlike in the Renaissance, we can now draw on such an immense talent pool, which means there are many more people addressing the challenges and finding solutions to our needs. In conclusion he suggested that we should look to Michelangelo’s statue of David for inspiration. It was unique because rather than depicting David holding the head of the dead Goliath it showed him looking, preparing and planning his strategy for overcoming the seemingly invincible giant.

### **Professor Lesley McAra, Director of the Edinburgh Futures Institute (EFI)**

In a talk entitled *Storm Chasers*, Professor McAra responded to Professor Goldin’s talk by considering the implications for Higher Education and, more particularly, describing how the Edinburgh Futures Institute takes forward the values of the University of Edinburgh to navigate the complexities of a new era.

She said: “What we have is a very high-level purpose to pursue and transfuse the wisdom, knowledge and understanding that can promote human flourishing.”

Professor McAra went on to describe one of the projects currently under development, which is linked to the Edinburgh and South East Scotland City Regions Deal. This is exploring how to create social benefits through the opportunities offered by the revolution in data, digital and artificial intelligence.

As such, the EFI is also about cultural change in the university itself, promoting “big, trans-disciplinary research,” bringing together a multitude of disciplines to tackle societal problems and plan for future needs.

According to Professor McAra, the founding concept is that the university is porous, that it collaborates, co-operates and engages rather than being an institution that transmits knowledge out to others. It will also ensure that education is genuinely a “lifelong offer” with everything from CPD and open learning to undergraduate and postgraduate degrees. It will have flexible fee structures and put an emphasis on outreach. “The aim is to build public trust and confidence,” she added.

Even the design of the building, at the former Edinburgh Royal Infirmary, will encourage people to encounter one another in a bid to promote mixing and cross-fertilisation and to make it open to all.

According to Professor McAra the EFI will change the role of the academic from “pedagogue to co-producer” which demands humility. Equally, undergraduate education will be about inspiring students to be risk takers who are full of curiosity.

Professor McAra concluded by discussing the sort of work they will engage in that could help address the problems faced by contemporary society. One involves a study of Edinburgh’s areas of multiple deprivation; the other looks at how former mining communities have navigated the social and economic transformations resulting from death of the industry. The EFI, she said “is about reimagining what a civic university is for”.

## **Questions**

Asked if capitalism is a good or bad idea, Professor Goldin said it is a system with the capacity to do a great deal of good and to be very ugly. It takes different forms in different places at different times. The battle of ideas is about mitigating the negatives and enhancing the positives.

Questioned about how to protect those left behind by change, Professor McAra said governments need to look more at the consequences for individuals and for community identity when industry is lost. The decline of mining and shipbuilding has destroyed the defining characteristics of many communities and left generations of jobless individuals in its wake. Poverty and the loss of identity must be addressed. If not, it contributes to a rise in crime, the emergence of the black economy and to geographical areas (and those who live there) being ‘labelled’.