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## *Knowledge Economies and the Future of Higher Education*



**Jonathan Blackledge**

**City&  
Guilds**



An online event given on  
22 November, 2021 @ 16:00 (SAST), 14:00 (GMT)

# Background

<https://www.iopconferences.org/iop/frontend/reg/thome.csp?pageID=1064454&eventID=1723>

**IOP** Institute of Physics

ONLINE EVENT



## For the Relief of our Planet

07 September - 09 November 2021



**IOP** Institute of Physics *A New Novum Organum  
for the 21st Century?*

A Series of Lectures and Panel Discussions to celebrate the 400<sup>th</sup> Anniversary of Sir Francis Bacon's publication **Novum Organum**

Recordings of each event are available at:

[https://www.youtube.com/playlist?list=PL6cB3G8QkvLFcohl3ryVkHOJAsv\\_gL6j8](https://www.youtube.com/playlist?list=PL6cB3G8QkvLFcohl3ryVkHOJAsv_gL6j8)

# Principal Publication

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## Thoughts on the Future of Higher Education in the UK: A Personal View with a Historical Context

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# Purpose of the Lecture

- For Sir Francis Bacon, education was an indispensable aid to moral progress in society.

*Read not to contradict and confute, nor to believe and take for granted, but to weigh and consider*

- The purpose in a nutshell is:

To '*weigh and consider*' the state of Higher Education in the UK



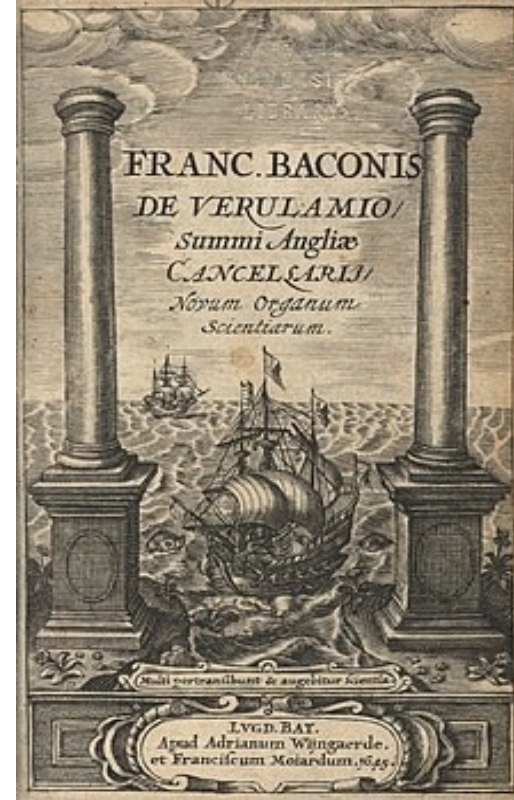


# Context: The *Idol of the Cave*

## *Novum Organum:*

*Concerning the interpretation of nature, 1620*

*Those who have taken upon themselves to lay down the law of nature as a thing already known and understood, have therein done philosophy and the sciences great injury.*

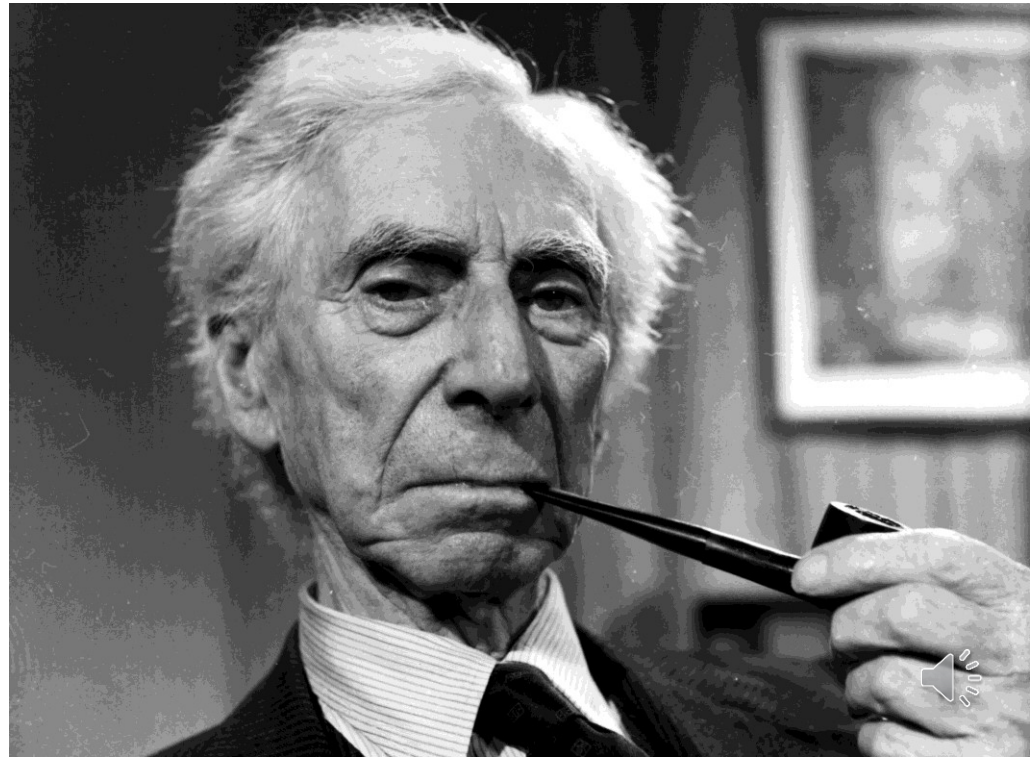


- Of Bacon's four idols, his '**Idol of the Cave**' is perhaps the best context for any discussion on education.
- This 'idol' concerns the problems of individuals, their passions and enthusiasms, their devotions and ideologies, which lead to a misunderstanding in the true nature of things.

## From the *Lord of Reason*

*We are faced with the paradoxical fact that education has become one of the chief obstacles to intelligence and freedom of thought*

**Bertrand Russell**



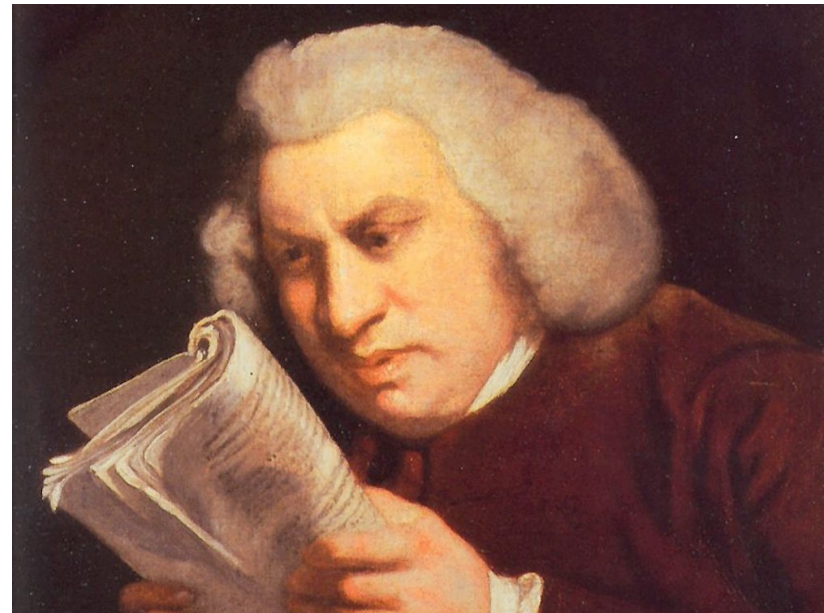
# On Education

*Talking of education, people now days have got a strange opinion that everything should be taught by lectures ...*

*... I know nothing that can be best taught by lectures, except where experiments are to be shown. You may teach chemistry by lectures. You might teach the making of shoes by lectures.*

***Life of Dr. Samuel Johnson***

James Boswell, 1766





# The Problem with Higher Education



# Bacon and Cromwell

*I beseech you, ...  
think it possible you may be mistaken.*

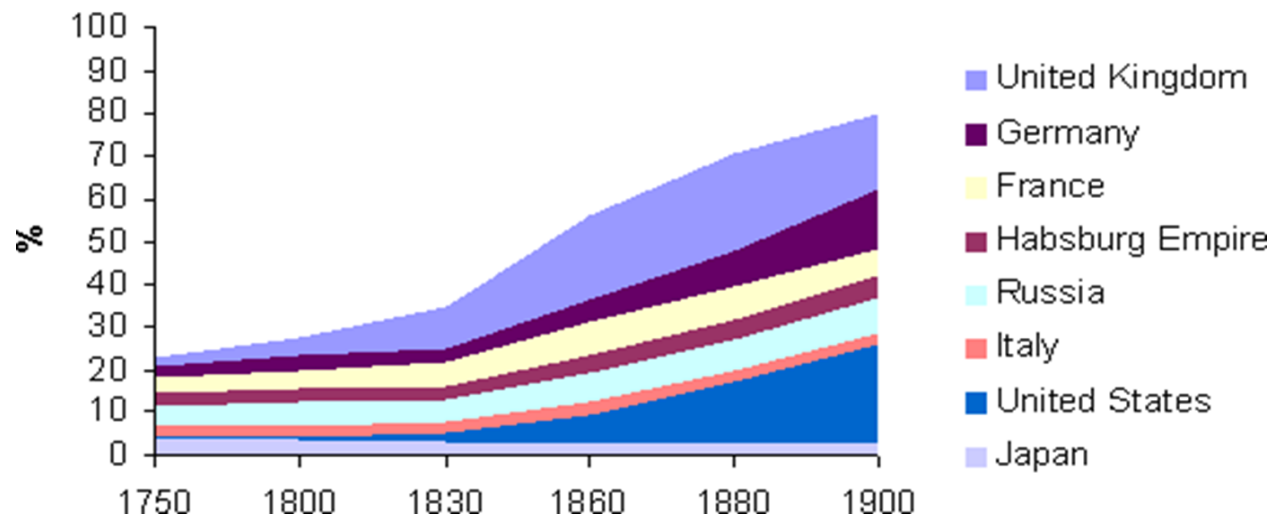


Oliver Cromwell (1599-1658)

- Cromwell by-passed the academic establishment he inherited and introduced a comprehensive range of new Schools, Colleges and Academies in which the Sciences, Technology, Engineering and Mathematics took a precedent.
- His approach to education was influence by the philosophy of Francis Bacon.
- This caused considerable offence to the academic establishment and was treated as a form of subversive criticism – **it was!!!**
- Thus, Cromwell catalyzed the scientific and trading dominance of England in the 18<sup>th</sup> and 19<sup>th</sup> centuries, known as the **Industrial Revolution**



- Bismarck masterminded the unification of Germany in 1871.
- He introduced a state education system with a broad curriculum and social welfare provision that was decades ahead of the UK.
- The Beveridge Report of 1942 was based on many of his ideas.





# The British Response to the *German Tiger*



1881 – **Central Institution of the City & Guilds of London**,  
South Kensington, London

Now known as **Imperial College**



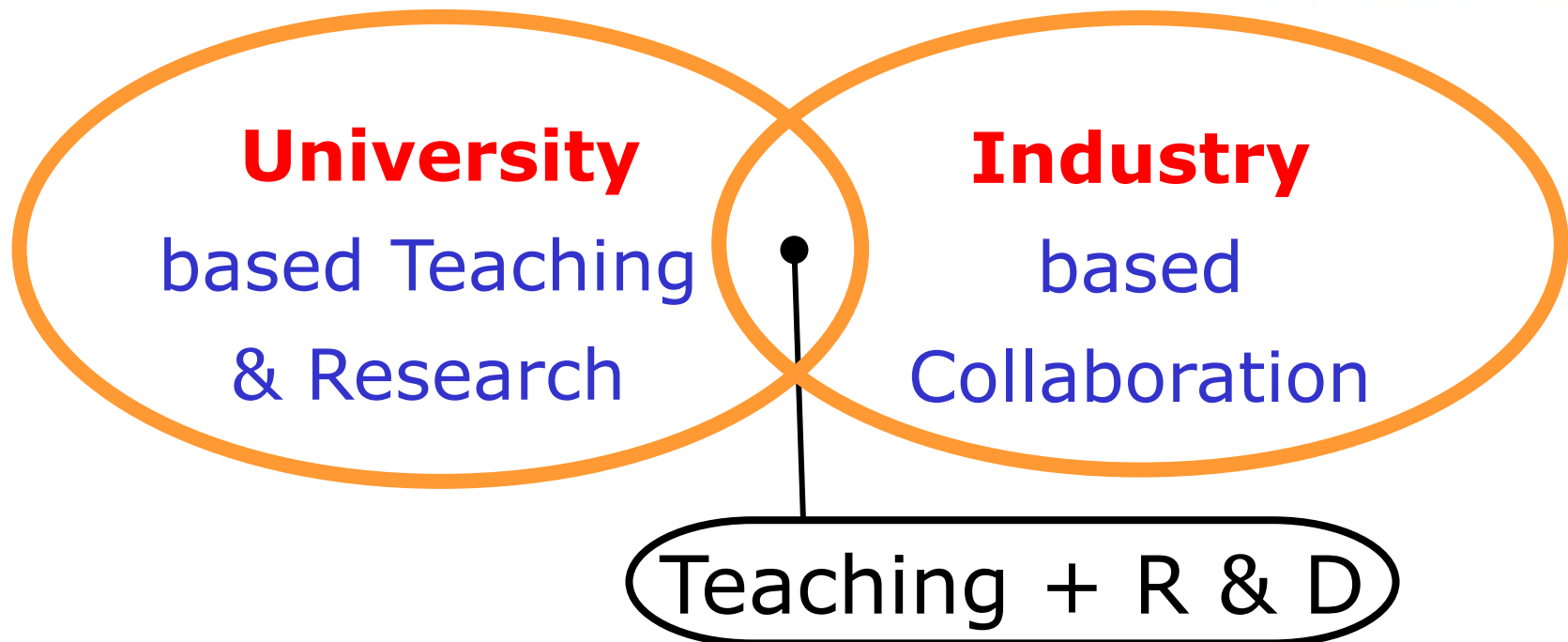
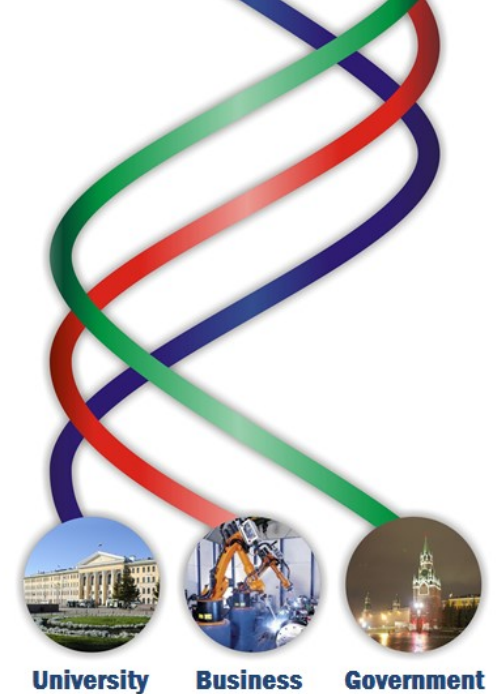
# The Triple Helix Concept

*The interaction among university, industry, and government is the key to innovation and growth in a knowledge based economy*

Henry Etzkowitz

*The Triple Helix: University-Industry-Government*

Routledge, 2008





# Example Case Study

## ***The National College for Digital Skills***



<https://ada.ac.uk/>

- In 2014, Microsoft identified 100,000 Technical and IT jobs in the UK that could not be filled for lack of appropriate skills.
- In December 2014, Prime Minister David Cameron announced the establishment of the first College of its type since 1993.
- The College 'opened its doors' in September 2016

***The mission of the College is to work with industry to design and deliver an institution that provides the education and support needed for all its students to progress into highly skilled, computing- related roles.***

# Another Case Study



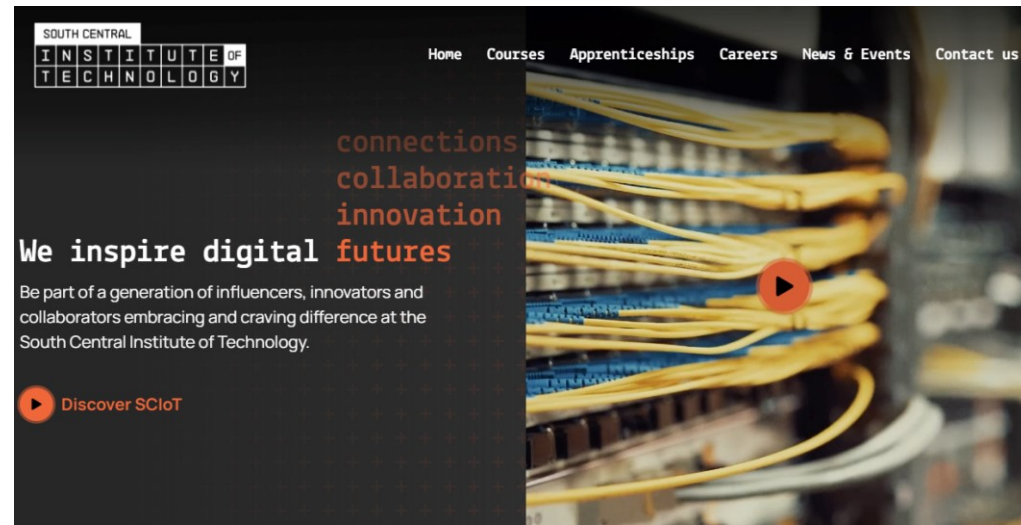
*Ready for Change*

## Introducing the Institute of Digital Technology at Bletchley Park

Inspiring the next generation of digital visionaries



<https://mkcollege.digital/>



# Concluding Remarks

- **The cost of education is rising but employers are saying graduates are increasingly unprepared for the workplace.**
- **Workplace based learning provides a solution to the traditional provision and university - related debt:**  
***to Earn as You Learn***
- The lack in parity of esteem between vocational and university educational pathways has been damaging and will become increasingly irrelevant.

# Some Further Examples and Latest Developments



## Parliamentary Bills

House of Commons

[UK Parliament](#) > [Business](#) > [Legislation](#) > [Parliamentary Bills](#) > Skills and Post-16 Education Bill [HL]

[Bill feed](#)

## Skills and Post-16 Education Bill [HL]

### Government Bill

Originated in the House of Lords, Session 2021-22

Last updated: 26 October 2021 at 16:54



[See full passage](#)

### NEWS

## IBM pledges to reskill 30 million people by 2030

Tech giant launches worldwide initiative to provide about 30 million people with technology and digital skills over the next nine years

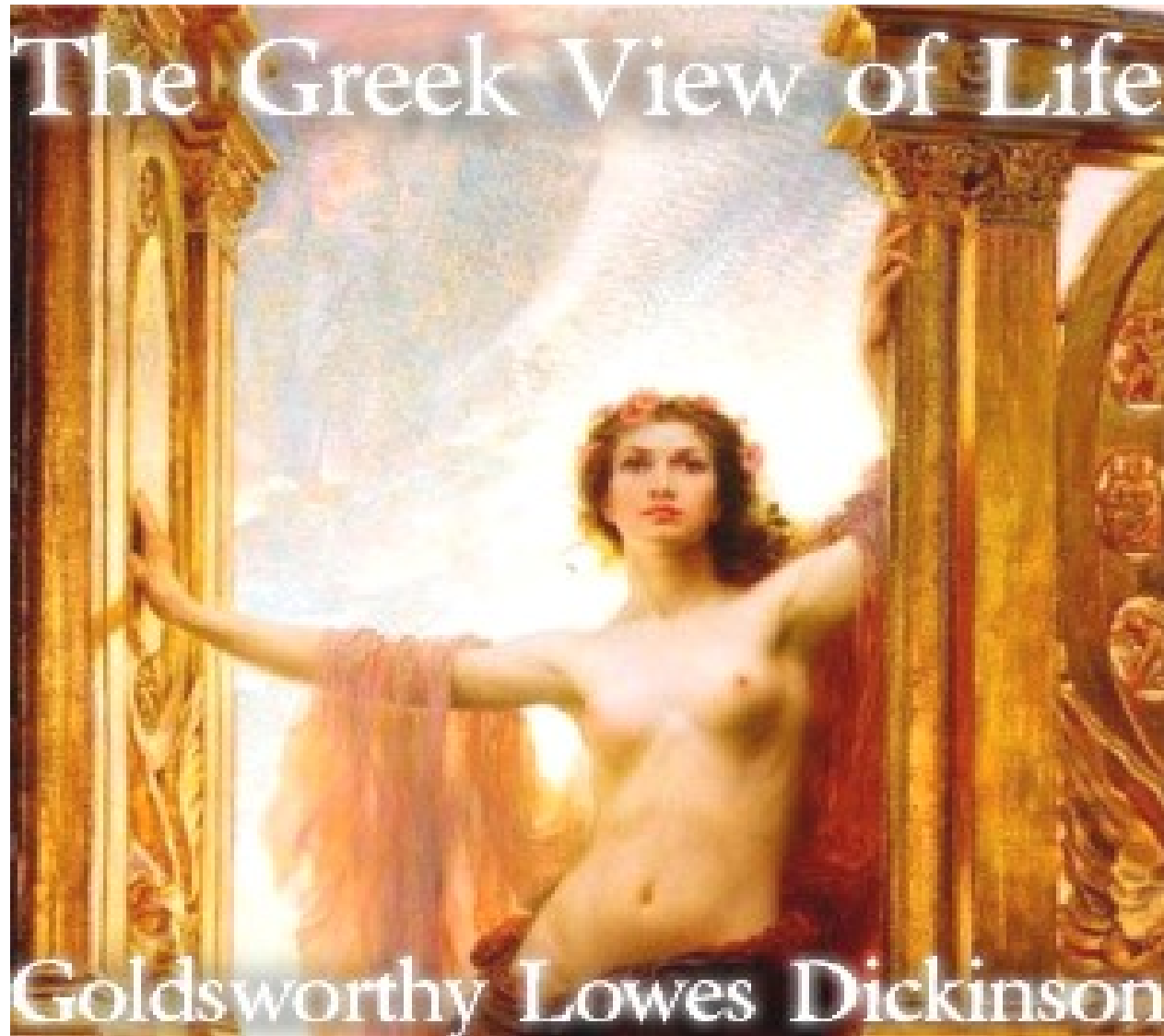


# Some Final Thoughts





# Back to the Wisdom of the Ancients



<https://librivox.org/the-greek-view-of-life-by-goldsworthy-lowes-dickinson/>

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## *Knowledge Economies and the Future of Higher Education*

# Q & A

