

'Think Global, Act Local - The Challenges of Globalisation'

Good evening and thank you for this invitation to speak at the 17th annual Merchiston Scholar's Dinner, which is both a privilege and a pleasure. As we consider the value of thought and scholarship together tonight I hope that we can consider a number of trends that are shaping the way our world works, and which will make increasing inroads in our careers and lives in the future.

Scholarship is academic study or achievement gained through learning at a high level for a sustained time. It involves asking thoughtful questions, seeking deeper answers and applying the knowledge and understanding held to date in a more meaningful way on this quest. A scholar will review and seek to understand the work of others, especially those who are experts in their fields, they will look for advancements in their own and others understanding and they will seek to do this on the basis of evidence. We all aspire to be lifelong learners and as such we are all aiming to add to our skills of enquiry, discernment and analysis as we sift the vast amounts of information that are now available.

A recent presentation makes the point that the information contained in one week of the New York Times contains more information than a person was likely to come across in a lifetime in the 18th Century. The same presentation asserts that 90% of the world's data has been generated in the last two years. At this stage we must be clear that data and information in and of itself is not about volume, but about accuracy and quality of content. This requires us to seek to possess ever greater skills of filtering, discernment and critical thinking as we consider this information overload.

It has become abundantly clear that we are living in a rapidly changing and increasingly integrated world. Countries are no longer in a state of self-sufficiency but are bound up in an intricate pattern of linkages that span across the globe. This set of processes is known as globalisation, which has been summed up by Professor Roland Robertson of Aberdeen University as 'the compression of the world'.

Thomas Friedman put it succinctly with the following words: - 'In Globalisation 1.0, which began around 1492, the world went from size large to size medium. In Globalisation 2.0, the era that introduced us to multinational companies, it went from size medium to size small. And then around 2000 came Globalisation 3.0, in which the world went from being small to tiny.'

How did this virtual shrinking of the world come about? Certainly vastly improved transportation has played a central part with sail power giving way to steamships to bulk carriers, the building of the rail networks that have cut travel times, the mass ownership of cars and most importantly the emergence of jet air travel. Both for human transportation and that of manufactured items the travel speeds and costs have been falling over the last century.

Equally the impact of distance has been cut by vastly improved telecommunications, moving from word of mouth to letter, to telegraph, to fax and phone, to satellite and via the internet. We now expect to live in a Wi-Fi environment and quickly feel the impact when we lose access to this distance cutting technology.

In both the modernisation of transport and of communicating information, Scottish inventors and scholarly minds have been vital. If we take first the major steps forward in mobility of mankind we could see the massive contributions from James Watt, inventor of the steam engine, Thomas Newcomen, inventor of the bicycle, Sir Dugald Clerk who created the Clerk cycle gas turbine, John Dunlop, inventor of the pneumatic tyre, Henry Bell who created Europe's first passenger steamboat, Sir William Fairbairn, the creator of the first iron-hulled steamship, Robert Wilson, who produced the first screw propeller and John McAdam who lent his name and innovation to the creation of macadamised or tarmac roads. All were Scots.

In the realm of communication technology James Chalmers thought of the postage stamp, John Reith was a founder and first Director-General of the BBC, Alexander Graham Bell invented the telephone, John Goodfellow helped us move money around the globe by inventing the ATM or cash machine and John Logie Baird created the television. All of us use these products on a daily basis and what sort of a world would it be without these Scottish innovations ?

Let us think about John Logie Baird for a moment. He was a schoolboy from Helensburgh, near Glasgow, with an innovative and quick mind. He showed early signs of ingenuity by setting up a telephone exchange from his house to other friends living nearby. This caused an accident when one of the telephone lines blew down and caught a local cab driver. His early school reports were not first class but he clearly possessed a very creative mind that was fascinated by invention. He enjoyed photography and this was undoubtedly important when he later came to convey the first flickering images across an embryonic television system first demonstrated in 1925. The whole process was fraught with frustrations, the need to try new initiatives and required a great degree of determination. These are characteristics that are needed in scholarship – to be persistent in the acquisition of new knowledge, to have a keen spirit of enquiry and the nature to keep asking questions.

We return to the trend of globalisation which has been emerging over the span of history with the expansion of different trading routes, such as the Silk Road linking adjacent continents of Asia, Africa and Europe in the 1400's, or the Greek and Roman trading empires that moved goods, people and money in a spider's web of road and sailing routes. This is best known as 'archaic globalisation' or 'proto globalisation'. It connected the known world of that time but was not truly worldwide in its scope.

The process accelerated rapidly in the 19th and 20th Centuries through the days of Empire, (be that Empire French, Spanish, Arabian, Dutch or British), and the Industrial Revolution that spurred on new ideas, new movement and a greater interconnectedness. Still at this stage however the world was not fully interdependent, with the flow of goods and commodities being heavily controlled for the benefit of certain nations.

The United Nations recognises 4 key components of globalisation, these being:-

- 1) The international flow of trade and transactions,
- 2) The free movement of capital and investment from one nation to another
- 3) The migration and movement of people across borders, and
- 4) The dissemination of knowledge across frontiers.

The development of much more advanced travel and telecoms has reduced the barriers of distance and of physical obstacles such as seas, deserts and mountain ranges, whilst also diminishing the impact of language and political boundaries and borders. Educational levels have improved markedly, leading to a diminishing number of people who cannot access new information. As a result technology transfer happens far more quickly in each successive decade.

In 2000 internet use was restricted to only 400 million users (or 7 % of the world's population), whilst now we now have more than 3 billion people (roughly 40% of the world's population) connected to the internet and rising fast. The digital divide of those who have and have not got access to the web is diminishing. Every day there are approximately 3.5 billion Google searches and 4 billion YouTube videos are watched. It is easy to see how the massive growth in e-commerce is being fuelled and the consequent impact on conventional retailers.

The visual signals of globalisation are often well known brands that have become both universal and ubiquitous in their availability. We would not find many cities on earth devoid of a McDonalds, KFC, Pepsi, Coca-Cola, Starbucks or Costa. Many find this homogenisation of culture rather bland with different nations moving towards a cultural norm. There is an erosion of the local culture, with

only small nods to national variation. You can find a McSushi Burger in Japan or a Maharajah Burger in India, but the essential elements of this fast food are very similar. Whilst some find this global culture reassuringly familiar, many others see the loss of regional variety as a move for the worse. National identities are being eroded and faded in some respects by this global blending.

It is of course not just a problem with food variety but is far wider with the loss of indigenous or local culture whether that be in clothing, music or language. English is now the most widely spoken language with over 3.5 billion people having a basic command of it, and globally 40% of radio programmes are in English. There are more than 6000 languages spoken around the world, but many are endangered and estimates are that more than half of these languages face extinction by the end of this century.

In our own country we see some additional impacts of globalisation. There are far fewer manufacturing jobs in the UK, or most other MEDCs, now as manufacturers look for the cheapest labour costs globally, causing de-industrialisation in the West. This job migration is accelerating as companies look to outsource service sector jobs too such as IT, telecoms and accounting work to lower cost locations, be this China, India or Vietnam. The number of graduate level employees has been growing fast in many emerging nations, especially in India and China with their huge populations. These represent a threat to the knowledge intensive and service industries in the Western world.

The process of technology transfer has sped up the process of development for nations. A doubling in per capita income that took America 150 years has been achieved in China and India in 20 years. The wheel does not need to be reinvented. In 2012 the global flow of goods, services and finance between countries reached \$26 trillion which is 1.5 times greater than in 1990.

What we do not always notice in this process is the ecological migration of impact. Only a small number of China's citizens in urban areas enjoy a healthy air quality due to the movement of polluting industrial processes to that country. Alongside the movement of jobs and wealth creation has come a consequent impact on the natural environment. The type of work that has shifted has often been at a cost. These are the 3 D's of employment - dirty, dangerous and demanding. Along with these types of production come poorer air and water quality with consequent impacts on human health and on wildlife.

It is estimated by the World Health Organisation that at any moment in time there are 500 000 people using the world's airlines, clearly representing the much more mobile society we live in. I wonder how many of you have travelled by plane in the last 6 months, or even for the start of term? This impact of global shrinkage carries its own hazards of course with the movement of disease much more a problem as evidenced by the various flu outbreaks of recent times and the massive international efforts going in to control the outbreak of Ebola in West Africa. We know too of many cases where plant and animal diseases have been transmitted unwittingly as well as the movement of non-native species into environments that find it difficult to control them. Non-native species are estimated to cost the US alone \$138 billion annually.

Should we be worried by these trends as some who have complained of 'globophobia' or the fear of globalisation have been? This is dictated by whether your own personal experience is largely positive or negative. There is no doubt that change is now the new norm and the organisations and individuals that can best respond to this are the ones that will both survive and thrive in the future.

I would contend strongly that living as you do in an environment that has a good international diversity you have the opportunity to gain an enhanced understanding of different world views that are essential for thriving in this globalised world. By spending time with others from different areas of the world you are enlarging your own awareness of the importance of global connectedness. We can better understand the major issues facing us as citizens of the world to enable us to collectively work on solving the shared challenges ahead, be they diminishing natural resources, the impacts of climate change or how to manage the energy crisis. Scholarship and the application of our increased knowledge and understanding will play a vital part in this process. The

opportunities of your future will be defined by the skills, values and understanding that you acquire here and now.

As you complete your education in this part of Scotland I hope it will enable you to be mindful of the huge and changing world that is outside our nation, but intimately connected to it. The job opportunities of the future will, more than ever, reward those who can work in teams from many nations, respond to change in a vast variety of different countries and understand the benefits of a globalising world. In summary I hope that we can all agree with Socrates who declared 'I am not an Athenian, or a Greek, but a citizen of the world.'

Thank you for your time tonight and I hope that you will enjoy the next challenges ahead at Merchiston and beyond.

Simon Mills
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