CORA Cork Open Research Archive
Cartlann Taighde Oscailte Chorcaí

Title	Education: a transformational journey?
Authors	Hyland, Áine
Publication date	2023-04-17
Original Citation	Hyland, Á. (2023) Education: a transformational journey? Fergal Nally Lecture, Royal College of Surgeons in Ireland, 17 April 2023.
Type of publication	Presentation/lecture
Rights	© 2023, the Author.
Download date	2026-11-16 09:54:10
Item downloaded from	https://hdl.handle.net/10468/17576

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Education: a Transformational Journey?

Fergal Nally Lecture by Áine Hyland in the RCSI – 17th April 2023.

My talk this evening is entitled "*Education: a transformational journey?".* It will be a whistle-stop tour of the history of education since earliest times, and I will try to identify periods when education might be deemed to have been transformational – either for individuals, or for society or civilisation as a whole – and periods when education was used to prevent or to resist transformation. I will then focus on present day schooling, especially in Ireland. Finally, I will briefly explore the challenges currently faced by humankind and ask whether education systems worldwide can play a part in overcoming these challenges and act as an agent for transformational change across the world.

Since **Writing** is and has been a basic lynchpin in the development of education systems, I will start by providing an overview of the birth of writing across the world. The first known efforts by humankind to put their thoughts in writing occurred 6,600 years B.C. when Jiahu symbols were carved on shells in China during the Neolithic age. From various archaeological artifacts we know that writing developing in China over subsequent millennia as this picture of ancient Chinese pictographic script around 1300 BC shows.

China was not the only country in which writing developed. In Mesopotamia (Iraq) a form of cuneiform writing developed well before the Christian era as this stone dating from 3400 BC shows.

Egypt was another country in which writing developed and in Egypt the form of writing was hieroglyphic. This stone dating from 3200 BC is an example of ancient Egyptian writing.

The Rosetta stone (found in what is modern day El Rashid in Egypt in 1799) dating from about 200 BC shows the same message in three different scripts. It has played an important role in helping archaeologists to decipher writing in different scripts.

The Greek and Roman alphabets are of course familiar to all of us, particularly the Roman alphabet, which as the Roman Empire developed and spread, became the favoured script across many European countries and later across the world.

Ireland had its own script – the Ogham script - during the early centuries AD (and possibly before that). The surviving examples date from the 4th to the 7th century AD. By the end of the first millennium AD the Gaelic script had developed, and while it has many parallels with the Roman alphabet it is a unique script. It has only recently (since the early 1960s been replaced by the Roman script for Irish (Gaelic) writing.

I mention writing as a starting point because writing became very important in formal schooling. Was writing transformative? Not all philosophers thought so. For example, the Greek philosopher Plato wrote in 370 BC as follows:

"This invention (i.e. writing) will produce forgetfulness in the minds of those who learn to use it. You offer your pupils the appearance of wisdom, not true wisdom, far they will read many things without instruction and will therefore seem to know many things, when they are for the most part ignorant and hard to get along with since they are not wise but only appear wise".

This type of comment will become familiar generation after generation, as philosophers of successive generations express skepticism about new changes and developments.

Formal Education:

I will now talk about formal education and question whether it was transformative over the generations.

Confucius

Confucius, a Chinese philosopher who lived from 551 to 479 BC. believed in the equality and educability of all people. He viewed **education as a means of transformation,** the discovery of human nature, and the cultivation of character. During his lifetime the basis of a Chinese education system was laid and over the generations, this developed further. The concept of choosing bureaucrats by merit rather than by birth, dates back to Confucius. Before his time leaders in China were leaders by virtue of birth. Over subsequent generations public examinations were increasingly used to choose those who merited public office. This approach to selecting the most meritocratic subsequently became commonplace all over the world. Public examinations were transformative for the ordinary Chinese citizens. Public appointments were no longer reserved for those of high birth but were made on the basis of academic merit.

Education in Ancient Greece and Rome

Around the same period, education also became transformative in ancient Greece and Rome, but only for citizens including those of high status and birth, and only for males – and not for slaves. In the 5th century BC, the writings of key Greek philosophers - Aristotle Socrates and Plato – were to have a transformative influence on education in the western world. Some the following quotations give a flavour of the educational philosophy of the Greek scholars. Aristotle said: "The educated differ from the uneducated as much as the living from the dead". Plato said that "if a man neglects education he walks lame to the end of his life". And with a nod to class equality he said: "All men are by nature equal made all of the same earth by One workman". His pupil Socrates famously wrote: "Education is the kindling of a flame not the filling of a vessel.

Ireland: The Monastic and Bardic schools.

While we have only limited evidence of Ireland's approach to education in the period before Christianity, we know that from the 5th to the 16th centuries A.D., the two main institutions of Irish education were the Monastic schools founded by Christian missionaries from the early 5th century onwards and the Bardic schools which originated in ancient Celtic times. The monastic schools made a very significant contribution to the development of education, particularly the education of Christian monks and clergy, through the many illustrated and beautiful manuscripts which were produced in the monasteries. One such manuscript is the book of Kells which contains the Four Gospels written in Latin. It was written and illustrated by monks and is now on display in Trinity College Dublin. The Monastic schools were transformative in terms of the education of those who wished to become religious leaders in society not just in Ireland but throughout the European continent.

The Bardic schools in Ireland were secular institutions which provided education in the Irish language, literature, history and Brehon law. They were highly developed and scholarly

institutions providing what amounted to a university education for those who attended them. They continued to exist until the middle of the 17th century. Most of the extant texts which were written in Bardic schools in Ireland are written in early or middle Irish. The legacy of Bardic schools is still with us in the very many beautiful poems and writings from that era. The Bardic schools produced many famous poets and academics – but neither the Bardic nor the Monastic schools played a transformative role for the population as a whole.

Universities:

Universities were a very important development across Europe in the second Millennium of the post Christian era. Bologna university was founded in 1088 and is thought to be the earliest university in Europe. Among those who attended Bologna were Copernicus in the 15th century and many men who subsequently became Cardinals and Popes. The early universities emphasized religious education and the preparation of young men for religious life.

Oxford and Cambridge universities also date from that very early period. Like Bologna, Oxford and Cambridge universities focused initially on the education of clergymen. Women were not allowed to receive degrees from either Oxford or Cambridge until the early 20th century.

Trinity College Dublin was founded in 1592 by Queen Elizabeth I. It was set up in part to consolidate the rule of the Tudor monarchy in Ireland, and as a result it was the university of the Protestant ascendancy for much of its history. Catholics were forbidden to attend Trinity College for most of its existence, initially by the college statutes, and in the 20th century by the Catholic Church. The veto by the Catholic church continued until the early 1970s.

And the Royal College of Surgeons of Ireland dates back to the 18th century.

The Enlightenment

The 15th to the 18th century in Europe are generally regarded as having been transformative from the point of view of education, civilization, and culture. The founding of the Gutenberg press in Germany in the 15th century hastened the spread of knowledge, discoveries and literacy in renaissance Europe. The printing revolution also contributed to the Protestant Reformation, which was itself transformative from the point of view of education. The Protestant Reformation began in Wittenberg, Germany, on the 31st of October 1517 when Martin Luther, a teacher and a monk, published his 95 theses. The reading of the scriptures was central to Luther's teaching. Therefore, in Protestant Europe, literacy for the masses became paramount.

The Enlightenment in Europe in the late 18th and early 19th century was a period of rigorous scientific, political and philosophical discourse. Custom and tradition were replaced by exploration, tolerance, and scientific evidence which with developments in industry and politics, led to the emergence of the modern world. An evidence-based approach to education emerged during this period – and this was to cost scientists and astronomers like Galileo their freedom and sometimes their lives. Anyone who questioned religious or state dogma paid a high price. While this period was transformational in many ways, being a period of great discoveries, the reluctance of Church and State initially to recognize scientific evidence and

discoveries ensured that the general populace did not benefit from these discoveries in the short term. That would not happen until later generations.

Mass Schooling – 19th and 20th Centuries

The 19th and 20th centuries are noted across Europe for the development of mass schooling. In the late 18th and early 19th century, even though the penal laws in Ireland forbade Catholics (and non-conformists) to run their own school, the people bypassed the laws and set up their own informal illegal schools, often referred to as "hedge schools". They were located in private houses, hovels, outhouses and (occasionally) in the open air, under hedges. By 1821 there were c. 9,000 such schools in Ireland attended by about 400,000 pupils. However, the curriculum offered was haphazard – there were no formal textbooks nor was there any inspection or control of such schools.

Was mass schooling transformative, or was it was its purpose conservative, i.e. to conserve traditional values? All over western Europe, with the development of mass schooling, came control of education by state and by church. National curricula were introduced, determined by the state. Mass schooling was driven by the need for workers for increasingly industrialized societies, and also for the production of compliant citizens who would conform and obey, and whose thinking would be influenced by those in power. Education was a tool for social control.

A good example of state control of mass schooling in the 19th century, was the National School system in Ireland, which was set up in 1831 by the London government. According to its founding document (the Stanley letter), the object of the system of national education was "to afford combined literary and moral, and separate religious instruction to children of all persuasions, as far as possible, in the same school, upon the fundamental principle that no attempt shall be made to interfere with the peculiar religious tenets of any description of Christian pupils". The National School system hoped to break down the barriers between the various Christian religious denominations in Ireland and to bring peace in a country where rebellion had broken out in the 18th century. National schools were transformative in terms of producing literate and numerate citizens. They grew rapidly in popularity throughout the 19th century but in spite of the best efforts of government they became denominational rather than multi-denominational and did nothing to break down the divide between Catholics and Protestants, nationalists and unionists. Over the decades, national schools became increasingly controlled by the churches, and that legacy is still with us, north and south of the island of Ireland.

While they achieved a literate and numerate population, national schools only party achieved the aims of their founders. However, they did produce a literate population. By 1920, there were 8,000 national schools, attended by over 700,000 pupils. The literacy rate of the population was 90%.

Intermediate (Secondary) Education 1878.

Intermediate or secondary education for both Catholics and Protestants was funded by government from 1878, when the government introduced a system of public examinations on the basis of which prizes and certificates would be awarded to secondary school students. Under this system payments were made to school managers on the basis of the results of the students at state examinations. There were three levels of examination, Junior, Middle and

Senior. Intermediate education may well have been transformative for the small number of pupils who could avail of it, but the vast majority of young people in Ireland could not afford to attend Intermediate schools. While the system provided subsidies for school managers it did not provide free secondary education.

The Irish Free State 1922

When the Irish Free State was founded in 1921, education was regarded by the leaders of the new state as a tool for the revival of the Gaelic language, culture, history and tradition. On the 1st of February 1922, when taking over control of Irish education from the commissioners of national and intermediate education, the new chief executive for education, Padraig O Brolcháin stated:

"*in the administration of Irish education it is the intention of the new government to work with all its might for the strengthening of the national fibre by giving the language, history, music and tradition of Ireland, their natural place in the life of Irish schools".*

It was not only the state which sought to use education as a tool for social control in the Irish Free State, the Catholic Church also saw education as central to its development and dominance. In 1922 the Catholic primary school managers emphasized the importance of church control of education, stating:

"We feel confident that an Irish government established by the people while safeguarding the material interests of the new state, will always respect and recognize the principles which must regulate and govern Catholic education, and in view of pending changes in Irish education, we wish to assert the great fundamental principle that the only satisfactory system of education for Catholics is wherein Catholic children are taught in Catholic schools by Catholic teachers under Catholic control".

For the following half century church and state in Ireland worked hand in hand to try to implement these fundamental principles with limited success. Both Church and State used the school system for their own ends. The State regarded schooling as a means of reviving the language and culture and also to ensure loyal and compliant citizens. The Church regarded schooling as a means of maintaining and spreading the Faith, saving souls, and ensuring a rich supply of priests, brothers and nuns for Ireland and for the Missions. Schooling could not be regarded as transformative either for society or for the economy during this period.

Unlike other European countries where second level education became universally available after the Second World War, Ireland as a neutral country did not adopt a similar practice, and it was not until 1967 that free secondary education was introduced in this country. The decision to introduce free second level education may have been for utilitarian reasons, but its success is now widely recognized.

When Seán Lemass became Taoiseach in the late 1950s, he recognized that the Irish economy was in a bad state. Emigration was extremely high and employment opportunities were very limited. A number of National Economic Plans were produced in the late 1950s and early 1960s and these were to drive educational change in subsequent decades. The Second Programme for Economic Expansion stated that:

"Expenditure on education is an investment in the country's primary resource – its people – which can be expected to yield increasing returns in terms of economic progress. Economic

growth is becoming increasingly dependent on the application of the results of scientific research and development to the practical problems of production".

A major survey, *Investment in Education,* published in 1965 found that there were serious inadequacies in the Irish education system which would need to be addressed if the government's economic plan was to be realized. A full one-third of pupils left full-time education at the end of primary school (most of them probably emigrating). By 15 years of age, almost 50% of young people had left school. Only 20% sat the Leaving Cert, and only slightly more than 5% went on to University. Children from professional families were twenty time more likely to attend higher education than those whose parents were semi-skilled or unskilled workers. Very few females went on to higher education.

Something would have to be done and it took a courageous Minister to overrule the caution of the civil servants and to introduce free second level education. In 1966, the then minister for education Donogh O'Malley, with doubtful backing from his government, stated:

"I intend to make provision whereby no pupil will, for lack of means, be prevented from continuing his or her education up to the end of the leaving cert course. I propose that assistance towards the cost of books and accessories will be given through the period of his or her course to the student on whom it would be a hardship to meet all such costs".

Free secondary education was undoubtedly transformative, not just for individual students but for the country, both economically and culturally. Over the subsequent decades, Ireland's young population benefited from free second level education and with the setting up of Regional Technical Colleges, (subsequently IoTs and now Technological Universities) more and more young people had greater access to third level education. Today, early school leaving, in the sense that it existed sixty years ago, has been effectively eliminated. Senior cycle completion rates are in the region of 95% and transfer to further and higher education as well as to apprenticeships is over 70%. The gap in access to higher education between those from higher socio-economic groups and those from lower socio-economic groups is now 2:1 as compared to 20:1 in 1963.

Ireland is now internationally known to have a well-educated workforce and is a desirable location for foreign direct investment. Education (and perhaps the Leaving Cert??) also contributed to a culture of hard work among our young people so that whereas earlier generations were regarded as the lazy Irish, that is not the reputation our young graduates have today.

BUT – we must not be complacent, There continue to be educational inequalities, by social group, race and ethnicity and in some disciplines, by gender.

Some Issues for 21st Century Education

And what of the future? There are still many issues which need to be addressed in Irish education. Among the key issues are a recognition of and action to support equality, diversity and inclusion in the education system at all levels. Whereas at various points in recent generations education was indeed transformative, not all young people benefited from that transformation.

It is only in the last 50 years that women have been fully recognized as contributing citizens of this country. I myself was a victim (product?) of the marriage ban. I got married in 1965

and had to resign my public service job on marriage. In 1973, following Ireland's accession to the European Economic Community, that the married ban was lifted – but its removal was not applicable retrospectively until the early 1980s. Individuals, society and the economy benefited from this decision, but it took many years to eliminate the negative effects of the marriage ban.

Social class (and poverty) are also barriers to education for some young people. In spite of Donogh O'Malley's plan in 1966 to remove financial barriers to education, many such barriers still remain.

As our society becomes increasingly multicultural, issues relating to race, religion continue to raise their heads. Those who have additional needs, due to physical or mental challenges, and those who are neurodiverse and do not fit easily into the traditional educational structures, have also been marginalized. While Ireland has come a long way in education in the past 50 years, it still has a long way to go to be fully inclusive.

And while schools have been successful and teachers have been impressively responsive to student differences, state curricula across the world are not always so flexible. To quote Howard Gardner, the guru of Multiple Intelligences theory:

"The biggest mistake of past centuries in teaching has been to treat all students as if they were variants of the same individual and thus to feel justified in teaching them all the same subjects in the same way".

Education must recognise and respond to the big challenges of the next generation. The recently adopted U.N. Sustainable Development Goals provide a useful and comprehensive underpinning for national curricula everywhere. The Six Key Challenges and potential Themes of Transformation, based on these goals, which we hope will lead to prosperity, social inclusion and sustainability, can be summarised as follows –

- The Digital Revolution
- Smart Cities
- Food, Biosphere and Water
- Decarbonization and Energy
- Consumption and Production
- Human Capacity and Demography.

And as society and the world of work changes, the focus of schooling must also change. According to Andreas Schleicher of the OECD, education is at risk of losing its relevance in an increasingly digitized world. National curricula can be limiting and can be a restrictive element in a young person's education. Creative teachers are often restricted by the curriculum they are expected to teach, and our systems often drive out those teachers who want to be creative designers. For example, although the Irish government emphasizes the importance of STEM education for the future of our citizens and of our economy, there is currently a risk that the proposed new Leaving Certificate science curricula will be dumbed down and standards will fall, not because of a lack of teachers or a lack of creativity among the teaching profession, but because of an uninspiring and restrictive curriculum and unimaginative national CPD.

To quote Andreas Schleicher: "There's a big gap between what the world needs and what our education systems are designed for". Ireland is currently at a watershed moment - it is essential that our revised Leaving Cert national curriculum is visionary and inclusive and will meet the big challenges for the next generation. Curriculum has the potential to be transformative – but it has also has the potential for stagnation – or worse!

The new technologies are both an opportunity and a challenge for our education system. Artificial Intelligence and tools such as Chat GPT have the potential to be used either for good or evil. Many of our teachers and our universities have exploited the positive possibilities of Chat GPT and similar technologies, and have alerted staff and students to the risks, particularly in assessment, that they pose. Immersive technologies where one can be present in the metaverse also provide opportunities, and some higher education courses are already exploiting these opportunities.

Have I missed the "National Voice of Education" here? Has the Minister, or the Department of Education engaged in any discussion with primary or second level teachers about AI or issued any advice about its possible impact on public examinations? The secretariat of the International Baccalaureate has issued advice to schools and students on the extent to which the use of AI such as ChatGPT is acceptable in the IB Diploma exam. I haven't heard any such advice from the NCCA or the SEC in Ireland! There are important ethical issues to be considered in this new technological world and it is important that our government and our young people engage with these issues.

Conclusion

In conclusion then, it is interesting to look back over the history of education and to ask oneself the question – has education been a transformational journey? If so, for whom? If not, why not?

Education can be transformative, but it has not always been so. Education can and has at times prevented transformation! It has been used by governments as a tool for control, conformism and conservatism. The educational trajectory is not always upwards – it can also be downwards!

Part of the Hippocratic oath taken by medical doctors requires them to "dok no harm". A similar oath for education policy makers all over the world could well be "Do not prevent learning!"

And looking to the future, we must try to ensure that the benefits of education will be available for all young people everywhere, regardless of race or religion, ethnicity or creed, ability or disability?

END