OpenLearn



Looking globally: the future of education





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Introduction and guidance

Introduction

In this free course, *Looking globally: the future of education*, you will be taken on a journey towards realising your vision for how education can best serve the next generation. In the course we focus on exploring the possible purposes for education. We introduce three alternative models for thinking about this and identify three global drivers that are affecting the world we live in, therefore affecting how education needs to be fit for the future. The course encourages you to reflect on these models and issues and helps you to refine your view about what you see as the most valuable purpose for education.

To achieve the aims of this course, we have harnessed a number of different tools and approaches to allow you to engage fully with the ideas and information we have gathered. These include forum discussions and collaborative online tools, interactive activities, audio-visual and written texts, and two quizzes. Full guidance on how to get the most out of these tools can be found in our Help with using this course document.

We hope that you enjoy the opportunities both to challenge and to extend your thinking through individual reflection as well as through interacting with others. Your perspectives will greatly add to the learning opportunities afforded by this course, as you bring your individual backgrounds, experiences and contexts to the discussion of what is necessary to make education fit for the next generation. The in-course participation opportunities offer a taster of some of the types of activities you would engage in if you extended your learning to engaging with the masters module.

This course will run from 8 August 2019 through to 30 June 2020, when it will be closed for some annual maintenance and then reopen with similar dates for 2019/2020.



Learning objectives

By the end of this course, you should be able to:

- develop a personal vision for an education for the twenty-first century and beyond
- recognise different ways of thinking about the purpose of education
- think about how the world is changing and what is driving those changes before considering what education should be like in the future
- reflect on the current system in which you work or have an interest, identifying what has been achieved and the most pressing issues.



Who is this course for?

This badged course is open to all and can be studied on its own as a standalone course, but it has also been designed to sit alongside and feed into a postgraduate 60-credit masters (level 7) accredited module – EE830 *Learning and teaching: educating the next generation*. If you are participating in this way, please read the guidance below.

If you are interested in signing up for this masters module, email WELS-ECYS-Masters@open.ac.uk to find out more.

Regardless of whether you study this course on its own or as part of the masters course, you will be eligible for an Open University badge if you complete enough of the activities.

Studying this course alongside the EE830 masters module

Students who intend to study the 60-credit masters module EE830 *Learning and teaching:* educating the next generation will be expected to study this badged course to feed into their first assessment.

EE830 Learning and teaching: educating the next generation is the first part of the Learning and Teaching MA/MEd pathway, which also includes a 60-credit taught module (EE831 Understanding your educational practice) and a 60-credit dissertation module (E822). It will run with an October start each year from October 2018.

Students registered for the EE830 masters module will receive tutorial support and access to a range of resources and tools. This will include support for developing critical engagement with ideas and information, reflecting on learning (including its professional application) and the collaborative co-creation of knowledge between participants on the course. This will allow students to take the discussions about the possible purposes of education from this course and extend and apply them towards articulating a personal vision for education.

The badge that is awarded for successful participation in this free online course is accepted as part of the first assessment on the masters module – even if this was completed prior to starting the masters course. In that case we encourage students registered with the module to re-engage with the activities in this course nearer the time, so they can refamiliarise themselves with the ideas here and benefit from participating in discussions with a new group of peers.



What is a badged course?

While studying *Looking globally: the future of education* you have the option to work towards gaining a digital badge.

Badged courses are a key part of The Open University's mission to promote the educational well-being of the community. The courses also provide another way of helping you to progress from informal to formal learning.

To complete this course you will need to be able to find around 24 hours of study time over a period of about six weeks. It is possible to study the content at any time, and at a pace to suit you. However, to get the most out of the discussions and interactive activities, we recommend that you aim to engage with these by following the week by week schedule.

Badged courses are all available on The Open University's OpenLearn website and do not cost anything to study. They differ from Open University modules because you do not receive support from a tutor. However you will benefit from interactions with other course participants and are provided with useful feedback from your responses to the interactive quizzes.

What is a badge?

Digital badges are a new way of demonstrating online that you have gained a skill. Schools, colleges and universities are working with employers and other organisations to develop open badges that help learners gain recognition for their skills, and support employers to identify the right candidate for a job.

Badges demonstrate your work and achievement on the course. You can share your achievement with friends, family and employers, and on social media. Badges are a great motivator, helping you to reach the end of the course. Gaining a badge often boosts confidence in the skills and abilities that underpin successful study. So completing this course should encourage you to think about taking other courses.

The badge for this course *Looking globally: The future of education* can be used as part of the first assessment of the Open University Masters module EE830 *Educating the next generation* within two years of gaining the badge. The Masters programme recruits for an October start each year, starting in 2018. You will need to have accessed your My OpenLearn profile and downloaded your badge as a PNG file or your statement of participation as a PDF to submit your badge for use towards EE830.



How do I achieve a badge for this course?

Getting your badge is straightforward! Here's what you have to do:

- read each week of the course
- participate in a minimum of three of the course forum activities
- score 50% or more in the two 'badged' quizzes in Week 2 and Week 5.



For all the quizzes, you can have three attempts at most of the questions (for true or false questions you will get only one attempt). If you get the answer right first time you will get more marks than for a correct answer the second or third time. Therefore, please be aware that for the two badge quizzes it is possible to get all the questions right but not score 50% and be eligible for the badge on that attempt. If one of your answers is incorrect you will receive helpful feedback and suggestions about how to work out the correct answer.

If you're not successful in getting 50% the first time you can re-attempt the quiz after 24 hours, and you can come back to it as many times as you like.

The course is designed to take about six weeks of study but you can complete it anytime between 8 August 2019 and 30 June 2020 (and similar dates the following year). This means the course and its forums will stay open to allow you to complete any forum postings you want to submit. Three postings are needed to meet the requirements of the badge. For your post to be counted towards your badge, please ensure it is a reply to this 'parent' post and not a reply to a participant's post. However, please do also feel free to comment on one another's posts in the spirit of collaboration and participation in the discussion.

We hope that as many people as possible will gain an Open University badge. We recommend seeing getting a badge as an opportunity to reflect on what you have learned, rather than as a test.

If you need more guidance on getting a badge and what you can do with it, take a look at the <u>OpenLearn FAQs</u>. When you gain your badge you will receive an email to notify you and you will be able to view and manage all your badges in <u>My OpenLearn</u> within 24 hours of completing the criteria to gain a badge.



Moving around the course

If at any time you want to return to the start of the course, click on 'Course content'. From here you can navigate to any part of the course. Alternatively, use the week links at the top of every page of the course.

It's also good practice, if you access a link from within a course page (including links to the quizzes), to open it in a new window or tab. That way you can easily return to where you've come from without having to use the back button in your browser. You can do this by holding down the 'CTRL' key (or CMD on a Mac) and left clicking the mouse button; or right click and 'open in new tab'.



Thursday 31 October 2019



Week 1: Is education fit for the future?

Introduction



Figure 1

Welcome to Week 1 of Looking globally: the future of education.

Governments across the world spend vast amounts of money on education every year – often prioritising this over other important areas such as health. Globally, the idea of 'universal primary education' – the aim that all children will be given access to a full course of primary schooling – is seen as important enough to have been enshrined in the United Nations' Millennium Development Goals (United Nations, 2006).

But *why* is education seen as so important? What vital purpose is education seen to fulfil? The American philosopher and educational reformer John Dewey gave his view of this in 1934:

The purpose of education has always been to everyone, in essence, the same: to give the young the things they need in order to develop in an orderly, sequential way into members of society. This was the purpose of the education given to a little aboriginal in the Australian bush before the coming of the white man. It was the purpose of the education of youth in the golden age of Athens. It is the purpose of education today, whether this education goes on in a one-room school in the mountains of Tennessee or in the most advanced, progressive school in a radical community. But to develop into a member of society in the Australian bush had nothing in common with developing into a



member of society in ancient Greece, and still less with what is needed today. Any education is, in its forms and methods, an outgrowth of the needs of the society in which it exists.

(Dewey, 1934)

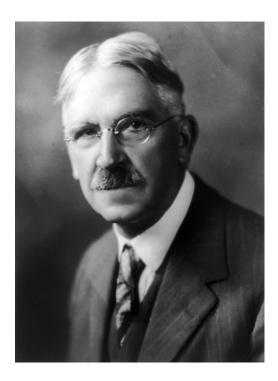


Figure 2 The American educational reformer John Dewey.

Think about:

Although some of the phrases in this quote may seem jarring or out of date, how far do you agree that:

- the purpose of education is to pass on the culture of a society to the young?
- education developed in one era or culture can be exported to another?

Participating in this course

This course has been designed to offer different ways for you to participate and engage with the ideas and information we offer. These include written texts, audio and audio-visual stimuli. There are also some activities which must be completed to gain the badge. These have been selected as key activities in which to participate in order to maximise your learning from this course.

You will also be regularly prompted to 'Think about' certain questions and ideas. We would encourage you to note down your ideas in a way that is convenient for you, as you may find it helpful to refer to these when completing subsequent activities.

Full details of the different types of activities you will participate in can be found in Activities and tools.

The Open University would really appreciate a few minutes of your time to tell us about yourself and your expectations for the course before you begin, in our optional



<u>start-of-course survey</u>. Participation will be completely confidential and we will not pass on your details to others.

Aims and activities

In Week 1 you will:

explore successes and issues in current education systems.

Activities should provide an introduction to:

- reviewing education for students aged 3–19 years as it is realised today across global contexts
- identifying drivers for change in education.

Week 1 activity planner

Activity	Details	Time
1	Read the <i>Education in numbers</i> infographic and consider reflection points.	30 minutes
2	Watch the video RSA Animate: Changing Education Paradigms and contribute to the working wall.	45 minutes
3	Watch the United Nations' <i>Numbers in Action</i> video and consider the reflection points.	20 minutes
4	Read the extract from <i>The Healer</i> and consider the reflection points.	15 minutes
5	Browse the National Geographic Kids collection <i>Syrian Refugees: Children Living in Exile</i> and consider the reflection points.	15 minutes
6	Watch the video <i>Did you know, in 2028</i> and consider the reflection points.	15 minutes
7	Create a mind map; interact with the working wall; take a screenshot.	45 minutes



1 Is education fit for purpose?

Current education systems have evolved in different contexts and from ideological positions which have shaped different systems. For example, recent changes have been made in Chile to support greater equity in education through moving away from the ultra neo-liberal agenda which had dominated for 30 years; the system in the UK grew out of increasing trade and industrialisation and the need for literate and numerate workers; Finland's current system is the result of deliberate reforms introduced to move away from the influence of various historical influences and to aid economic recovery. Case studies of Finland and other countries are studied in more depth in the associated Open University masters module EE830 *Learning and teaching: educating the next generation*. If you are interested in signing up for this module, please email WELS-ECYS-Masters@open.ac.uk.

But are these current systems fit for purpose in a changing world? Many governments have attempted to reform education with changes to structures (types of schools), curriculum, and assessment; yet, overall, change is very slow and most children are still grouped according to age in classrooms of 30 or more pupils studying traditional subjects in 'bite-sized' chunks.

Activity 1 Education in numbers

Allow approximately 30 minutes



Figure 3 Part of the Education in numbers infographic.

Look at the statistics presented in this <u>Education in numbers infographic</u>, produced for this course by The Open University.

Think about:

- Which statistics surprise or shock you?
- What are the positive messages in these statistics?
- What do these statistics identify as challenges for education systems all over the world?



 What would be your priorities for change to education systems, based on your reaction to these statistics?

There is much to be positive about in the way education has developed but before we can decide if it is fit for purpose, it may be useful to explore what the purpose of education should be.

Activity 2 Purposes and challenges in today's education Allow approximately 45 minutes

Part A

Watch the following Royal Society of Arts (RSA) Animate video *Changing Education Paradigms* (2010), which has been adapted from a talk given at the RSA by Sir Ken Robinson, an internationally acclaimed educationalist.

Video content is not available in this format.

Think about:

- What two primary purposes of education can you identify from the video?
- What three issues in education can you identify that you see as interesting or important?
- Do you agree with Sir Ken about the primary purposes and issues for education?
- Does he accurately portray the educational settings and processes you have experienced?
- What changes do you consider are needed in this education system?

Part B

Now follow the link to visit the <u>working wall</u> and post short descriptions of three aspects of the system that you know best which you think need to change. Don't forget to add the country that you are talking about to your post. Search the wall and post your ideas with others that follow a similar theme. For further instructions on how to use the working wall, see our Using the working wall guidance.

Please note: we may wish to reuse your working wall contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email WELS-ECYS-Masters@open.ac.uk.



2 Global drivers for change

In 1945 the <u>United Nations (UN)</u> organisation was formed with the aim of preserving international peace and fostering co-operation between nations to solve global problems. The UN could be considered to be the organisation through which the world community plans for the future, establishing globally agreed frameworks to drive national policy making. The <u>World Bank Group</u>, founded in 1944, also works to provide funding and knowledge aimed at reducing poverty, increasing shared prosperity, and promoting sustainable development.

In September 2015, 193 world leaders agreed on a vision for 2030 called 'Sustainable Development Goals' – the SDGs (United Nations 2015).



Figure 4 The flag of the United Nations

Watch the United Nations' video <u>Numbers in Action</u>. Note what the United Nations hope to see achieved by 2030.

Although education is specifically identified as Goal 4, it is thought that improving education is important in achieving all of the goals. Education needs to be 'fit' for a future that we only have clues about.

Think about:

 What environmental concerns does the world face that education may have to react to?



- What demographic changes are there throughout the globe that may affect education?
- What technological changes may affect the way that education is structured?

Discussion

- You may have thought of climate change, air pollution in industrialised settings, deforestation, habitat loss and reduction in biodiversity, depletion of finite resources and many more.
- You may have thought of increasing migration and international movement of people, an increase in lifespan and some nations' populations increasing, whilst in other areas decreasing birth rates may be an issue.
- You may have thought of increasing automation and artificial intelligence which
 may mean fewer manual jobs, global connectivity through the internet and
 widespread access to mobile devices, international digital security issues and
 many more.

In this course we will help you analyse how each of these 'drivers' contribute to thinking about an education system that is fit for purpose in the twenty-first century.



3 Issues facing education

In this section, you are going to read and watch a range of stimuli to help you think about issues facing education in the future.

Activity 4 A dystopian (but possible) future? Allow approximately 15 minutes



Figure 5 The Healer by Anti Tuomainen

Can you imagine what the world might look like if society fails to meet some of the global challenges we have been considering? Read the following extract from a novel entitled *The Healer* which is set in Finland in the near future in which a narrator reports his journey into the City of Helsinki:

The metro tunnel was closed from Sörnäinen to Keilaniemi because of flooding. ... I went back to watching the news on the screen attached to the back of the driver's bulletproof glass compartment. The southern regions of Spain and Italy had been officially left to their own devices. Bangladesh, sinking into the sea, had erupted in a plague that threatened to spread to the rest of Asia. The dispute between India and China over Himalayan water supplies was driving the two countries to war. ... The forest fires in the Amazon had not been extinguished even by blasting new river channels to surround the blaze.

. . .

Estimated number of climate refugees planet-wide: 650–800 million people.

Pandemic warnings: H3N3, malaria, tuberculosis, ebola, plague.

. . .

I turned my gaze back to the rain which had been falling for months, a continuous flow of water that had started in September and paused only momentarily since. At least five waterfront neighbourhoods [named] had been continuously flooded, and many residents had finally given up and abandoned their homes.

Their apartments didn't stay empty for long. Even damp, mouldy and partially underwater, they were good enough for the hundreds of thousands



of refugees arriving in the country. In the evenings, cooking fires and campfires shone from flooded neighbourhoods where the power was out.

(Tuomainen, 2014, pp. 4-5)

Think about:

- Do you feel we are on an inexorable journey towards this situation, or do you think such outcomes will be averted?
- What would education need to be like to prepare the next generation for this, or to prevent such environmental, and associated social, change?

Now you will imagine what it means to migrate as a child to a new country. How do you get to understand what is important in this new environment?

Activity 5 Experiences of an exiled child

Allow approximately 15 minutes

Look at these photographs from the National Georgraphic Kids collection Syrian Refugees: Children Living in Exile. The pictures were taken by refugee children.

Think about:

- What do these pictures tell you about the experiences of refugee children?
- The pictures are likely to show experiences that the children value within the camp can you articulate those experiences?
- What would education be like if it was designed for these children?

And what will the world be like a decade from now? Here you will look at how some of the trends in today's world might be used to predict what lies ahead.

Activity 6 How the world will change

Allow approximately 15 minutes

Watch this video from the Centre for Research Innovation and Future Development, *Did you know, in 2028...* (2014)

Video content is not available in this format.

The changes seem dramatic, but are they more dramatic than the changes we have seen in the previous ten years?

Think about:

- What will be the main opportunities and challenges in the year 2028?
- Do you agree with those identified in the video?
- How will the challenges and opportunities that you identified affect education?





4 Summary: What needs to change?

This week you have seen that there has been a great deal of progress in offering education worldwide and that education is no longer just for privileged young people. Most countries in the world now acknowledge that all children have a right to education and are working to make that a reality.

But you have also been challenged to consider what the purpose of education may be, and how education may need to respond to three key drivers for change: changes to the environment, demographic changes, and the impact of technology.

Activity 7 Identifying the changes

Allow approximately 45 minutes

- Using all the ideas you have now considered, prepare a mind map (see
 <u>Activities and tools</u> for more information on how to do this) summarising your
 thoughts on what needs to change if education is to be fit for purpose in the
 twenty-first century. You might use the three key drivers for change as a basis for
 your mind map, or another system.
- On the working wall you will have had the opportunity to read other participants' ideas about aspects of education systems which may need to change. Re-read the comments on the wall and then add ideas to your mind map from those that seem important to you.
- 3. Take an image or screenshot of this mind map (see <u>Taking screenshots</u> for help with this) and store it safely so that you can return to it in the following weeks.

Please note: we may wish to reuse your working wall contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email WELS-ECYS-Masters@open.ac.uk.

In the next few weeks you will be encouraged to think more about the purpose of education in a changing world. You will explore, in depth, some of the ways in which the world is changing and how that may change your ideas about what education is for.





Week 2: Why do we educate?

Introduction



Figure 1

Welcome to Week 2 of Looking globally: the future of education.

The focus this week is on models, theories or conceptual frameworks that are often used to help explain the underpinning ideas of an education system. By considering these frameworks you can begin to develop your own ideas about what is important when considering educating the next generation. There are many ways of thinking about the purposes education has; just three models for education will be discussed here – each offering a different approach.

Aims and activities

In Week 2 you will:

 recognise that systems of education are underpinned by a set of values and beliefs about its nature and purpose.

Activities should facilitate an understanding of:



- the way that education forms part of wider socio-political models
- three well documented ways of thinking about what the purpose of education might be.

Week 2 activity planner

Activity	Details	Time
1	Interactive task: read and prioritise quotations.	30 minutes
2	Watch the human capital model animation and consider the reflection point.	30 minutes
3	Watch the rights-based model animation and consider the reflection point.	30 minutes
4	Watch the capabilities-based model animation and consider the reflection point.	30 minutes
5a	Interactive task: assign quotations to the correct models for education.	30 minutes
5b	Write a 200 word response to reflection points and post on the course forum.	30 minutes
Quiz	Answer five questions. This will form part of the assessment for the badge.	10 minutes



1 The purpose of education

Looking at what works in education and what may need to change in the future will involve thinking about the goals of education. You have already been introduced to some ideas on this through the *Changing Education Paradigms* video in Week 1.

In the next activity you will consider quotes that show how different people view various purposes of education. Some contributors are contemporary and some do not necessarily reflect current values. These quotes illustrate the diverse ways people talk about education and they are intended to stimulate your thinking about the purpose of education. Although the quotes are not labelled here, the full attributions can be found at the end of this week.

Activity 1 What do you see as the purpose of education? Allow approximately 30 minutes

Read the following nine quotes which relate to possible purposes of education. As you read, start to prioritise the statements by moving them up or down the list based on how much you agree with them, or how important you feel they are. Continue to arrange the quotes until you have placed them in an order you are satisfied with.

Interactive content is not available in this format.

You will be asked to refer back to your arrangement later on this week. Click the 'save' button to save your work so that you can return to this activity later. Alternatively, you could take a screenshot of your arrangement (see our <u>Taking screenshots</u> guide for advice on how to do this).



2 Three models for education

You will now study three different ways of thinking about education systems in order to illustrate the different purposes, values and theories that can underpin education, and to consider the consequences of conceptualising education in different ways. These models are not intended to be descriptions of any particular education system, but rather to provide a set of tools that you can use to think about the purpose of education and the implications of different positions on the function of education.

There are many models that could be used to analyse education systems and consider the purposes of education, such as Freire's Liberation theory (1970) or the Marxist critical approach (Kellner, 1989), but here we will study just three. These three models or theories of education are chosen here because they are ones that you may come across in various contemporary policy documents and discourses.

They are:

- the human capital model
- · the rights-based model
- the capability model.



3 The human capital model

For the last fifty years, human capital theory has been widely accepted by many societies as the basis for educational policy making, planning and evaluation. Human capital theory is concerned with economic growth and assumes that human labour can be treated as a commodity. An improved education of the workforce is seen as an investment that will lead to economic returns both to the individual and, perhaps more importantly, to society as a whole. Thus increased educational expenditure and increased participation in education are believed to lead to improved economic productivity and economic growth.

Activity 2 Exploring the human capital model

Allow approximately 30 minutes

Watch this two-minute animation in which we outline the human capital model for you. It is worth watching the animation two or three times to ensure you have a good understanding of the model so that you can consider its implications for education. You should make notes as you watch, as you will return to reflect further on this model later in the course.

Video content is not available in this format.

Think about:

What are the important aspects of the human capital model for education?

More about the human capital model

Key global institutions, such as the World Bank, have promoted policies and practices underpinned by the human capital model. It is also associated with the 'school effectiveness' movement and international interest in standardised assessment. However, despite its influence over national education systems, increasingly there are criticisms of this approach.

Steven Klees (2016), for example, argues that the approach is fundamentally flawed for a number of reasons:

- · earnings do not reflect productivity
- · earnings are a poor measure of social benefit
- estimating the empirical effect of education on earnings is almost impossible
- critically, the underlying concept of economic efficiency is unsound.

Klees suggests that the human capital model pays little attention to structural problems and separates efficiency from concerns of equity and social value. The assumption that education causes economic growth and personal prosperity is now being challenged. Some recent data suggest the opposite: that economic growth enables more investment in education (Cobham and Klees, 2016).



4 The rights-based model

Many international conventions and declarations enshrine the right to education. For example, Article 26 of the UN Universal Declaration of Human Rights (United Nations, 1948) states that everyone has the right to education which should be free in the elementary stage. The UN Convention on the Rights of the Child (UNICEF, 1989) extended this right by stating that all children should be eligible to go to secondary school. From this perspective, education is a right – that is, a moral or legal entitlement to have or do something, and an end in itself, rather than the means for achieving other ends. As such, governments should be expected by their citizens to find resources to offer a quality education to each child.

Activity 3 Exploring the rights-based model

Allow approximately 30 minutes

Watch this two-minute animation in which we outline the rights-based model for you. It is worth watching the animation two or three times to ensure you have a good understanding of the model so that you can consider its implications for education. You should make notes as you watch, as you will return to reflect on this model later in the course.

Video content is not available in this format.

Think about:

What are the important aspects of the rights-based model for education?

More about the rights-based model of education

Agencies such as UNESCO and UNICEF base their programmes on this model. At school level, the rights-based model is acknowledged by a concern with democratic schools, learner participation, removal of corporal punishment and involvement of the local community in the school.

Critics of the rights-based approach argue that despite nations and states saying that they accept every child has a right to education, many make no attempt to turn such aspirations into reality. The model may be interpreted as simply stating that it is a child's right to receive a decent education but may pay insufficient attention to inclusion, diversity and equity, and the model does not of itself enable detailed planning to take account of specific socio-cultural contexts and the needs of particular learners.



5 The capabilities model

The most recent approach of the three considered here is the capabilities model, developed initially by Amartya Sen (2010) whose writings concern social justice, quality of life and the removal of inequality. This model is based on the concepts of 'capabilities' and 'functionings'. Capabilities are what each person is able to be and do – what Sen calls 'substantial freedoms' (p. 253). These are freedoms or opportunities for choice and action that an individual possesses, created by a combination of their personal abilities and the political, social and economic environment. This approach has its origins in the ideas of self-realisation from nineteenth and twentieth century philosophers such as John Stuart Mill (1806–1873) and Rabindranath Tagore (1861–1941).

Functionings are the realisation of capabilities. Capabilities are important because they lead to functionings, but also because they are 'spheres' of choice and freedom (Sen, 2010) – in this model the freedom to choose has an intrinsic value. To distinguish between capability and functioning, Sen uses the example of the starving person and the fasting person. Both have the same kind of functioning with regard to nutrition but they do not have the same capability; the fasting person is able to choose to stop fasting but the starving person has no choice.

Activity 4 Exploring the capabilities model

Allow approximately 30 minutes

Watch this two-minute animation in which we outline the capabilities model for you. It is worth watching the animation two or three times to ensure you have a good understanding of the model so that you can consider its implications for education. You should make notes as you watch, as you will return to reflect on this model later in the course.

Video content is not available in this format.

Think about:

What are the important aspects of the capabilities model for education?

More about the capabilities model

The capabilities model argues that by expanding individual capabilities, people are given the opportunity to realise functionings that they value, and develop personal well-being. Thus more help should be given to those who need it more, e.g. pupils with disabilities, to enable them to have the freedom to choose between functionings. Some theorists such as Robeyns (2006) and Nussbaum (2003) consider there is a list of core capabilities – for example, the capability of critical thinking. However, others such as Sen (2010) suggest that key capabilities should be defined by those engaged in the problem in the context. In a capabilities approach, the pedagogic focus is on the development of autonomy and the capacity to make choices through one's life. Hence the outcomes are more than just



literacy and numeracy achievements, but the range of freedoms which support the condition of being educated.

A number of scholars (e.g. Pogge, 2002 and Gore, 1997) suggest that the capabilities model is too individualistic with its focus on how each individual can flourish, and that it pays insufficient attention to structural issues (e.g. how schools are funded, built and staffed) and the concerns of communities. Several authors (e.g. Robeyns, 2006 and Tickly and Barrett, 2011) argue that there must be a connectedness, in thinking and practices, between giving attention to individual capability agendas within education and to the promotion of wider social and political liberties. Such connectedness is important as otherwise, for example, a society may educate people to have the capability for political free speech but deny them the opportunity to exercise this in practice. Conversely, a state may make it open for everyone to participate in democratic activity but not deliver the basic education that would enable them to participate.



6 Considering all three models together

The three models have distinct differences although they are all focused on education. Here you will think about how the models are reflected in popular thinking.

Activity 5 Thinking about all three models and developing your own view

Part A: Thinking about all three models

Allow approximately 30 minutes

Below are the quotes about education that you prioritised in Activity 1. This time, assign each one to a particular model of thinking about the purposes of education.

Interactive content is not available in this format.

Part B: Developing your own view

Allow approximately 30 minutes

Listen to these audio instructions and think carefully about each question (the questions are given below if you prefer to read them).

Audio content is not available in this format.

Think about:

- Were some quotes easier to categorise than others?
- Did you find that some quotes were influenced by more than one model?
- Many people consider that these three models are not distinct, that it is possible to think in terms of two of these approaches working together. In fact it has been said that without the rights-based model, the capabilities approach does not make sense. Do you agree?
- How far did you think one model overlapped with another? Identify three similarities between two of the models. Now consider how each model differs from the others.
- Which model of education feels right to you? Which has the most characteristics that you value?

Look back at the decisions you made in Activity 1. Consider which model of education your higher placed quotations came from. Does the result of this exercise surprise you?

Now write a summary of your thinking of the purpose of education in relation to the three models presented on this course in 200 words and share it on the <u>course forum</u>. Remember that you need to add at least three posts to the forum in order to gain your badge.



Please note: we may wish to reuse your forum contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email <a href="https://www.webs.com/webs.co



7 Week 2 quiz

Now it's time to take the first of two quizzes for this course. You must obtain a score of at least 50% to qualify for the badge.

Week 2 compulsory badge quiz

Remember, this quiz counts towards your badge. If you're not successful the first time, you can attempt the quiz again in 24 hours.

Open the quiz in a new tab or window, then come back here when you've finished.



8 Summary

This week you have been introduced to three models that can be used to shape education systems. The models do not describe any specific education system but they describe a way of thinking about the purposes for education. Is education only worth investing in if it brings with it the potential for economic growth, or is it about increasing personal well-being in society?

In each of the next three weeks you will be guided to reflect on the three key drivers for change identified in Week 1:

- environmental (Week 3)
- demographic (Week 4)
- technological (Week 5).

In each case you will be asked to evaluate what you think education needs to do to contribute to meeting these challenges, as well as whether these global changes offer any opportunities for society and, hence, education. You will also be asked to think how far the three models for education you have studied in Week 2 have affected how education already responds to these drivers and whether adopting another model may improve that response. Throughout, you will be asked to consider how education can help fit young people for the future.

Further reading

If you have found the issues discussed this week of particular interest, you may want to read further about the three models for education. Martha Nussbaum, Ingrid Robeyns, Leon Tickly and Elaine Unterhalter, among others, have written extensively about these three ways of thinking about education.

If you would like further access to published research, and support in critically reading and reviewing such work to inform your own re-visioning of the purposes of education, why not consider the Open University's new postgraduate module: EE830 *Learning and teaching:* educating the next generation, which will run for the first time in October 2018. In this module you will be directed to readings from these authors. Anyone wishing to deepen their understanding will find open access papers available by exploring the internet. If you are interested in signing up for this masters module, please email WELS-ECYS-Masters@open.ac.uk to find out more.



The nine quotations

Here are the quotations from Activity 1 with full attributions.

Human capital model

'Through hard work and education, we can deliver a strong economy and opportunity for all.' – Julia Gillard.

(Sydney Morning Herald, 2011)

'The accumulation of cultural capital – the acquisition of knowledge – is the key to social mobility.' – Michael Gove.

(Walker, 2013)

'It turns out that advancing equal opportunity and economic empowerment is both morally right and good economics, because discrimination, poverty and ignorance restrict growth, while investments in education, infrastructure and scientific and technological research increase it, creating more good jobs and new wealth for all of us.' – President William J. Clinton.

(New York Times, 2012)

Rights-based model

'Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family.' – Kofi Annan.

(United Nations, 1997)

'In schools giving students a full education, not to create great artists but about the right to have full expression and imagination and creativity, along with an acknowledgement that everybody learns differently. You try and you fail and you try again. All those skills are useful in the workplace, too.' – Damian Woetzel.

(Whitman, 2014)

'I don't know why people have divided the whole world into two groups, west and east. Education is neither eastern nor western. Education is education and it's the right of every human being.' – Malala Yousafzai.

(Meikle, 2013)



Capabilities model

'Education enables the humans to achieve their fullest mental and physical potential in both personal and social life.' – Abhijit Naskar.

(Naskar, 2016, p143)

'The function of education is to teach one to think intensively and to think critically. Intelligence plus character – that is the goal of true education.' – Martin Luther King, Jr.

(King, 1947)

'The goal of education is not to increase the amount of knowledge but to create the possibilities for a child to invent and discover, to create men who are capable of doing new things.' – Jean Piaget.

(Hanley-Maxwell, and Collet-Klingenberg, 2011)





Week 3: How do environmental drivers affect the possible purposes for education?

Introduction



Figure 1

Welcome to Week 3 of Looking globally: the future of education.

In Week 1 of the course you were invited to consider key global drivers for change in education and in Week 2 you started to think about alternative ways of thinking about education.

In the next three weeks you will be challenged to think about alternative ways that education could respond to the United Nations' view of the central role of education in the Sustainable Development Goals (SDGs) also introduced in Week 1:



The success of these goals is driven by the education goal. The SDGs reflect the important role of education by encapsulating targets in a stand-alone goal (Goal 4).

(Unesco, n.d.)

This SDG talks about how the education needed should be 'inclusive', 'equitable' and 'promote lifelong learning opportunities'. This course argues that, in doing so, it will need to prepare the next generation to respond to changes affecting societies. In particular, this course presents three drivers of change which should affect how we think about the purpose for education:

- environmental
- demographic
- technological.

This week you will consider the first of these: how – depending on your view of the purpose of education – should we respond to the environmental issues that are challenging societies both locally and globally? You will draw on your own experiences of educating young people in your reflections.

Aims and activities

In Week 3 you will:

- explore the environmental issues to which education will need to respond in the future
- reflect on the implications of environmental challenges for the possible purposes of education.

Activities should facilitate an understanding of:

- the key environmental issues driving change locally and globally
- alternative perspectives on the possible responses of education to meeting environmental challenges
- a personal view about the role of education in meeting environmental agendas.

Week 3 activity planner

Activity	Details	Time
1	Listen to a five-minute audio extract from the BBC's <i>Fragile Planet</i> series and find out from the WMO report which climate records were broken in 2016. Then consider the reflection points. Discover a relevant news article and post it to the course forum. Then consider some reflection points.	90 minutes
2	Watch the video Climate Change: Professor Brian Cox clashes with sceptic Malcolm Roberts and skim read/scan a New York Times article about climate change denial. Then consider the reflection points.	45 minutes



3	Listen to the extract from the BBC Radio 4 programme <i>Shared Planet</i> about alternative views of sustainability, consider a reflection point and then two illustrative scenarios.	45 minutes
4a/4b	Make notes based on ONE of the scenarios from Activity 3, and write a 200-word response for the course forum. Read other posts on the forum.	30 minutes



1 Do we need to respond to environmental changes?

We will now consider some contemporary global environmental issues.

An episode of the BBC World Service programme *Fragile Planet* entitled 'Sustainability' was broadcast in 1999 and took a 'pilgrimage into the future'. The extract used here provides an overview of the issues which scientists and society at large were noticing in the environment at the time. It raises questions that are still being addressed, such as how concerned people should be about the development and implications of climate change and whether they should 'maybe even be scared'?

Activity 1 Contemporary environmental issues

Part A: Reflecting on your views

Allow approximately 45 minutes.

1. Listen to the following five-minute extract from the programme.

Audio content is not available in this format.

2. Next, find out which global climate records (related to levels of rainfall, carbon dioxide, air and ocean temperature, flooding and sea level rise) were broken in 2016 by accessing this press release issued by the World Meteorological Organisation: Climate breaks multiple records in 2016, with global impacts. Scroll down to the bottom of the report to familiarise yourself with the infographic 'Statement of the Status of the Global Climate 2016'.

3. Think about:

- If you were making the programme today, would you focus on the same environmental issues? If not, why not?
- Do you agree with the conclusion that the two biggest challenges to the planet are to stabilise both population and the environment to avoid loss of ecosystems and repercussions to human civilisation? If so, what tensions does this place on a) society globally and b) local communities? If not, what do you see as the biggest challenge we face related to sustainable living?

Part B: Exploring current environmental issues

Allow approximately 45 minutes.

Find a news item which reflects a key environmental issue affecting the area in which you live. Post this item on the <u>course forum</u>, starting your post with a description of the kind of issue in the news item; for example: air pollution, deforestation, soil erosion, water pollution, flooding, climate change. Ideally, you should add a hyperlink to the news item in your post on the course forum, or you might prefer to take or find an image and upload this with a short description. You can find guidance on how to



search for creative commons in <u>Finding copyright-cleared images</u>. Remember to make clear the name of the country and/or area to which the item relates.

Remember that you need to add at least three posts to the forum in order to gain your badge.

Think about:

- In response to the key environmental issue(s) you have identified locally, how could your local education system respond?
- How might you expect your local education system to respond given your awareness of constraints on it?
- How can local education systems respond to the wider, global environmental challenges?
- How do your responses to these questions connect with any of the three models for education introduced last week?

Please note: we may wish to reuse your forum contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email WELS-ECYS-Masters@open.ac.uk.



2 What evidence is there about environmental issues?

There is some debate, mainly within political and business communities, about the nature, extent and causes of these environmental issues. An example of this relates to carbon emission-related climate change. While the majority of scientists and experts believe that the weight of evidence points to a human-generated increase in carbon emissions which is increasing global air and sea temperatures, this is not universally accepted. Different people hold different views on what counts as reliable evidence, which can be influenced by differing world-views. Positions of power can be held by people with strongly held views and this can have implications for political and policy decision-making. We consider, if this is the world we live in, what kind of education does the next generation need?

Activity 2 Who decides?

Allow approximately 45 minutes.

This activity focuses on the complex issue of climate change by addressing the question: What evidence is available on environmental issues?

 Watch the UK physicist Brian Cox and Australian senator Malcolm Roberts discuss climate change in this short (under two minutes) BBC News video Climate Change: Professor Brian Cox clashes with sceptic Malcolm Roberts.

Video content is not available in this format.

Spend 10 minutes skim reading the article from the New York Times
 Trump Picks Scott Pruitt, Climate Change Denialist, to Lead E.P.A, which
 highlights the changing attitudes to climate change within the United States'
 Trump administration (Davenport and Lipton, 2016).

3. Think about:

- What skills and knowledge will citizens need to enable them to decide whether to agree with climate change supporters, sceptics or deniers?
- What implications does the debate about scientific evidence (not just about climate change but about evidence related to a wide range of environmental issues such as those highlighted in the previous activity) have for educating the next generation?
- Although this course is focused on the education of children and young people, what are the implications for our own education as adults (as parents, teachers and peer citizens)? Sustainable Development Goal 4 (introduced in Week 1) asks us to consider education as lifelong learning.



3 What is education for a sustainable future?

When thinking about what kind of education is needed for societies to deal with environmental challenges, you will have heard how the term 'sustainability' is often used. The Oxford Dictionary offers two definitions of sustainability:

- 'the ability to be maintained at a certain rate or level' usually applied to economic growth and sometimes referred to as sustainable development
- 'the avoidance of the depletion of natural resources in order to maintain an ecological balance' – when used to talk about dealing with environmental issues.

(English Oxford Living Dictionaries, n.d.)

Activity 3 What is sustainability?

Allow approximately 30 minutes.

 Listen to the short audio extract of an episode of the OU BBC Radio 4 programme Shared Planet (2013) entitled 'What is Sustainability?'. As you listen, consider the differing views of what sustainability is.

Audio content is not available in this format.



The BBC Radio 4 programme Shared Planet, which looks at the complex relationship between humans and the natural world, is presented by Monty Don.

2. Think about:

- How are the history and tensions between these two definitions being used as competing agendas?
- Now read the following two scenarios, each with an associated additional resource, which illustrate these alternative definitions of sustainability. They are not directly opposed to each other but have ideas in common, reflecting the



complexity of modern life and perceptions of how to live in society. Choose ONE to reflect on in Activity 4.

Scenario 1: Communities as problem solvers

The first definition of sustainability reflects a market-driven perspective. If you take this perspective as a way forward, decisions will need to be made to create industries which solve environmental dilemmas; for example, producing electric cars and renewable energy. These, in turn, create jobs. The changes they are associated with might also damage productivity in other job sectors, such as those that rely on consumption of fossil fuels. This view of the world is in keeping with the human capital view of the purpose of education as it focuses on productivity and humans as workers. Education would need to produce workers with the skills necessary for new forms of employment in this future, flexible enough to transition from one kind of employment to another. You will have heard in the 'What is sustainability?' video how there is an unresolved tension between how to achieve economic and environmental goals.

This definition reflects a particular perspective and dilemma. How to put this into practice has been part of the United Nations' debate leading to the Sustainability Development Goals. The current goals offer a way of bringing together both economic and environmental agendas. The Organisation for Economic, Co-operation and Development (OECD) report *The Sustainable Development Goals: An overview of relevant OECD analysis, tools and approaches* (2016) summarises the OECD mission statement: 'People, Planet, Peace, Partnerships and Prosperity'.

Optional further study

For further information you might like to consult this OECD (2016) document The Sustainable Development Goals: An overview of relevant OECD analysis, tools and approaches (in particular, page 10, which focuses on sustainability).

Scenario 2: Shared responsibilities

The second definition of sustainability calls on all citizens to work in communities to solve problems together, demonstrating a sense of social justice and shared responsibility for well-being. The recently coined term 'glocalism' (Globus et locus, n.d.) refers to the idea that to be global citizens we should act locally. A response in keeping with this view of the world would see the purpose of education as to produce citizens with an awareness of the issues challenging them in the world, a sense of responsibility to others and the skills of problem-solving, critical thinking and creativity to address the identified problems. Education for sustainability (EFS), sometimes termed Education for Sustainable Development (ESD), has become a branch of educational thinking and practice.

In association with this second definition, there is a framework which has been developed by the Plymouth University's Centre for Sustainable Futures (CSF) which summarises the dimensions needed for Education for Sustainability, as illustrated in Figure 2.



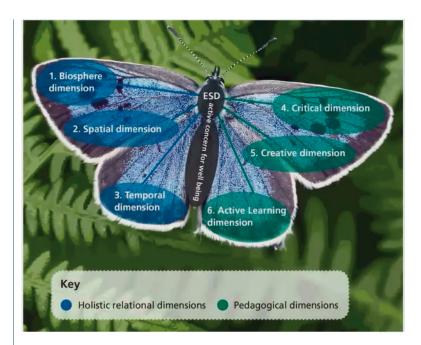


Figure 2 A butterfly model of Education for Sustainability

Three relational dimensions to be considered are:

- biosphere
- spatial
- temporal.

Three pedagogical dimensions to accommodate and respond to the relational dimensions are:

- critical
- creative
- active learning.

Optional further study

For further discussion of these dimensions you might like to watch the following video of Dr. Paul Warwick of the CSF talking at the 2014–2015 Open Lectures held at the University of Greenwich. This six-minute extract is taken from the start of his lecture *Sustainability Education in HE – towards a pedagogy of hope, challenge and controversy?* (Educational Development Unit, 2015). Although his team focus on the application of ideas around EFS/ESD to Higher Education contexts, their ideas are built on practical applications in compulsory school-age settings relevant to this course.

Video content is not available in this format.



4 Reflecting on alternative views

The following two activities (4a and 4b) are designed to help you think through the alternative views you considered in the previous activity. Choose **just one** to pursue.

Activity 4a Reflecting on Scenario 1

Allow approximately 60 minutes.

 Reflect on whether and how you think education can contribute to resolving tensions between economic and environmental goals identified in the discussion of the first definition of sustainability.

Think about:

- Do you agree that there are tensions or do you see that there are positive synergies between the two agendas?
- How does the role for education in Scenario 1 relate to the human capital purpose for education presented in Week 2?
- Use Table 1 below to develop your notes and/or a mind map to help you record the key drivers associated with each agenda. Add any further thoughts of your own.
- 3. Draft a response of no more than 200 words which addresses the question: How do you think that education can contribute both to the pursuit of economic and environmental goals?

Write this from your own perspective, taking a local, as well as a global, perspective.

Post this onto the <u>course forum</u>. Read at least two other posts and comment on them. You may find that the thoughts of others help you develop your own thinking further. You may need to do the latter part of the task next week to give time for others to post.

Remember that you need to add at least three posts to the forum in order to gain your badge.

Please note: we may wish to reuse your forum contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email WELS-ECYS-Masters@open.ac.uk.

Remember: you should only complete either Activity 4a or Activity 4b.

Activity 4b Reflecting on Scenario 2

Allow approximately 60 minutes.

 Reflect on the role of education in the forming of a collective global response to a sustainable future as outlined in Scenario 2.

Think about:



- Do you see there are opportunities for education resulting from environmental agendas as well as just seeing the issues as challenges?
- In what ways do you think this second scenario, including how it is being taken forward by the Plymouth team, aligns with the capabilities model for education presented in Week 2?
- 2. Use notes, a table (you might find Table 1 below helpful for this) or a mind map to help you record the key drivers associated with this scenario.
- 3. Draft a response of no more than 200 words which addresses the question: In what ways do you think education can play a role in forming a collective global response to a sustainable future?

Post this onto the <u>course forum</u>. Read at least two other posts and comment on them. You may find that the thoughts of others help you develop your own thinking further. You may need to do the latter part of this task next week to give time for others to post.

Remember that you need to add at least three posts to the forum in order to gain your badge.

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Table 1: Environmental vs economic drivers

Tuble 1. Environmental v3 economic arrects								
Economic drivers	Environmental drivers	Tension	Synergy					
Need for individuals to earn money for food, housing, other living costs.	Need for employment to minimise impact on the environment e.g. minimise travel, clean industries.	Jobs aren't always where housing is available or families want to live.	Jobs can be related to increasing the efficiency and environmental credentials of processes and industries.					
Need for society to make money e.g. for exports, taxes, profits, tariffs on imports.	Having a global market means goods travel long distances and this involves carbon emissions and energy use.	Goods traded are often not made where they are needed or are made more cheaply elsewhere, when local products might be sufficient.	The money saved by buying more cheaply from other countries could be spent on mitigating against the environmental travel costs e.g. carbon offsetting.					
Need for society to have sufficient money to use e.g. for housing, education, infrastructure.	The environment does not necessarily create money and when resources must be conserved or areas protected, this may appear as a net drain on a community's funding.	Wealth is not evenly distributed globally as shown by differences in countries' Gross Domestic Product, which is usually expressed per head of its population. Money needed and wealth	The environment can be a source of income such as eco-tourism and could be responsibly used locally.					



Need for society to provide for its citizens e.g. food, consumer goods etc.

There are cultures who are self-sustaining and movements within other countries advocating local production to meet needs but this can be viewed as quite extreme and backwards looking.

produced are not spread equitably.

If all countries only made what they needed, there would be no trade between countries and income would be only internally changing hands. This would be a radical shift in trading expectations from the world we currently know.

Some feel there can and should be a better balance between local and global production and consumption.



5 Summary

In this week you have begun to think about the way education might have a role in preparing the next generation of citizens for thinking about and dealing with the environmental challenges we are facing, both locally and globally. This has introduced the idea of education for sustainability as a possible purpose for education. In Week 4 you will turn to consider demographic issues and how these might affect possible purposes for education.

Further reading

If you have found the issues discussed this week of particular interest, you may want to read further about Paul Warwick's views of how Education for Sustainable Development should be developed in schools to enact what he terms a 'pedagogy of compassion' (2016). This peer reviewed academic paper, made available for open access, reviews the Future Leaders Programme in the UK which, at the time of writing the paper, had worked with over 200 children and young people aged between 7 and 19 years old in a range of locations.

Reference: Warwick, P. (2016) 'Education for Sustainable Development: a movement towards pedagogies of civic compassion', *FORUM*, vol. 58, no. 3, pp. 407–414 [Online]. Available at:

https://pdfs.semanticscholar.org/b113/9037a0bd4006e4455ebfb52ff17ab1db2eef.pdf (Accessed 3 October 2017).

If you would like further access to published research, and support in critically reading and reviewing such work to inform your own re-visioning of the purposes of education, why not consider the Open University's new postgraduate module EE830 *Learning and teaching:* educating the next generation, which ran for the first time in October 2018. If you are interested in signing up for this masters module, please email

<u>WELS-ECYS-Masters@open.ac.uk</u> to find out more. Paul was interviewed by the module team and has provided some talking-head videos, so you can 'meet' him there.





Week 4: How do demographic challenges affect the possible purposes for education?

Introduction



Figure 1

Welcome to Week 4 of Looking globally: the future of education

During Week 3 you considered what education for a sustainable future might mean by focusing on environmental issues.

A further challenge to education systems is that of demographics, which this section will ask you to look at in more detail. There are, and will be even more, significant demographic changes in the world. As you engage with the resources here, think about what their impact will be on the education systems that you are familiar with.



Aims and activities

In Week 4 you will:

reflect on the implications of global demographic drivers on education.

Activities should facilitate an understanding of:

- current demographic patterns globally and locally
- the implications of demographics on education
- the implications of these changes for the future of education.

Week 4 activity planner

Activity	Details	Time
1	Browse the International Migration Statistics and consider some reflection points.	45 minutes
2	Read selected parts of the article <i>World Report 2017 – The Lost Years</i> . Post a news item relevant to demographic change affecting your setting to the course forum; then read posts from other contributors.	45 minutes
3a	Read the BBC article <i>How many people can our planet really support?</i> and then add to posts to the working wall.	45 minutes
3b	Read the article <i>Policies to Address Population Growth Nationally and Internationally</i> , then consider some reflection points.	60 minutes



1 Demographic change

Demographic change can be caused by the increasing mobility of people internationally; for example, war and famine as drivers of mass movement from and within Syria, Iraq, Sudan etc., or economic migration as people move to find more stable and better paid employment to support their families, often leaving behind a skill shortage. It can also be caused by changes as birth rates rise or fall, either as a result of policy, standards of living change or conflict. Similarly, changes in lifespan can rise or fall due to improvements in wealth and healthcare or destabilisation of governments and associated conflict and infrastructure decline. Whatever the reasons, some nations' populations are growing while others are decreasing. This is associated with changes to the spread of age groups in a country at any one time and the proportion of dependents to those of employable age. Population pyramids represent demographic spread and can be used to show how these dynamics can change over just a few decades, as in the case of Taiwan, shown in Figure 2.

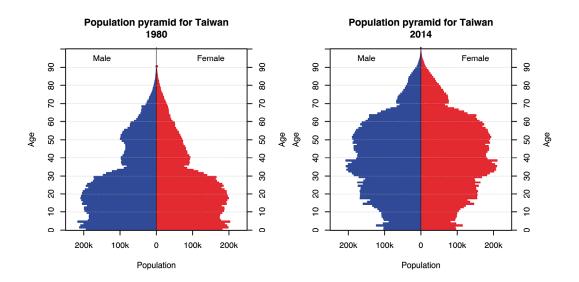


Figure 2 Population pyramids for Taiwan in 1980 and 2014

Migration, currently an issue globally, is changing national demographic structures and driving political change. Many current events seem to have their basis in issues of migration; for example, Brexit in the UK, President Trump's plans to build a wall along the USA's border with Mexico and the rise in support for Marine Le Pen in France and other far right leaders in Europe.

Activity 1 Migration and demographic change Allow approximately 45 minutes

Spend some time exploring the <u>International Migration Statistics</u> published by the Migration Policy Institute. Use the data available on that website to establish whether people are moving to your home country or moving away from it.

Think about:

In what ways is your country affected by migration?



 Can you identify three reasons why the migration your country is experiencing may cause issues for your education system?

Discussion

Some examples of how migration can affect education systems:

- Having more people means there are more children to educate, and therefore a
 greater need for school places and teachers.
- People leaving a country often means that the best educated leave, so there may be less income from taxes and fewer teachers for the next generation.

Please note: we may wish to reuse your forum contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email WELS-ECYS-Masters@open.ac.uk .

You will now consider the impact conflict and migration can have on children who would otherwise be in secondary education.

Activity 2 The effects of demographic change on students' education Allow approximately 45 minutes

- 1. Read the article <u>World Report 2017 The Lost Years</u> (Khawaja et al., 2017). This is a long article and to manage your workload it is recommended that, after reading the introduction, you select one section which interests you the most (using the left hand tool bar), and the conclusion entitled 'Ways forward'.
- 2. Find and post to the <u>course forum</u> a hyperlink to a news article that relates to your own country's experiences of demographic change, including that caused by migration (emigration or immigration). Posting this can stimulate thinking about how this is affecting your education system. The article might relate to the reasons for the movement of people, identification of particular groups of people affected, and/or how society is responding. It might relate to changes in the balance of age groups. Add a brief reflection on how your country's education system is (or should be) responding to the challenges of demographic change. Indicate which country you are reflecting upon in your post.
- Read two or three other posts and consider how education needs to adapt to the needs of all those affected by migration or demographic change. You might find it helpful to reflect on the three approaches to education introduced in Week 2 to reflect on these issues from different perspectives.

Remember that you need to add at least 3 posts to the forum in order to gain your badge.

Please note: we may wish to reuse your forum contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email WELS-ECYS-Masters@open.ac.uk.





2 Population growth



Figure 3 Are we in danger of having too many people for the resources to support?

'It is not the number of people on the planet that is the issue – but the number of consumers and the scale and nature of their consumption,' says David Satterthwaite, a senior fellow at the International Institute for Environment and Development in London (Cumming, 2016).

He quotes Gandhi: 'The world has enough for everyone's need, but not enough for everyone's greed.'

Activity 3 Thinking about population growth Allow approximately 45 minutes

In the previous activity you considered the changing populations of individual countries. You will now consider the bigger picture in terms of global population by reading two articles which review what a sustainable population is for our planet. This will help provide the context for considering the role of education in responding to the issues raised. Together, these two articles concern different ends of the spectrum of the issues raised by population growth.

Part A

- Read the BBC article <u>How many people can our planet really support?</u> to identify the answer to what a sustainable population might be and some of the factors to take into account.
- 2. Make one short post to the <u>working wall</u> about EITHER: (a) The key issue(s) that education needs to concern itself with globally, given expected demographic changes? OR (b) Ideas about a solution (such as those offered in the articles) which you think education systems in any one country (for example, your own) can reasonably attend to?



Don't forget to add the country that you are talking about to your post, i.e. Denmark: 1) ... 2) ... 3) Try to link any posts for (b) to any in (a) if you think they are relevant.

Part B

Allow approximately 45 minutes

Read the article <u>Policies to Address Population Growth Nationally and Internationally</u> (Goodyear, 2008) in which a range of international population-related policies are summarised, not all of which focus on curbing growth. Issues around gender, food production and the role of education are raised.

Think about:

- Do you agree that it is education's role to mitigate some of the underlying issues and work for peace, reconciliation and/or sustainable living?
- If it is not a role of an education system to respond to issues related to demographic change, whose role is it?
- Does the education system you are familiar with include some reference to tackling issues of demographic change, possibly in its curriculum?



3 Summary

In this week you have thought about demographic changes and why they are happening. You have also considered the effect such changes will have on education and the sort of challenges that young people today may have to be ready to face. Perhaps technology will begin to offer some ways to offset the problems that you have identified so far? Week 5 will support you in thinking about how our third key global issue, technology, will affect education in the future and may require those of us who work within education to change our thinking.

Further reading

If you have found the issues discussed this week of particular interest, you may want to read further about what is being researched about refugee education. There has been particular attention paid to this in Australia and the following peer-reviewed academic paper is available through open access.

Reference: Matthews, J. (2008) 'Schooling and settlement: refugee education in Australia', *International Studies in Sociology of Education*, vol. 18, no. 1, pp. 31–45 [Online]. Available at: http://www.tandfonline.com/doi/abs/10.1080/09620210802195947 (Accessed 5 October 2017).

If you would like further access to published research, and support in critically reading and reviewing such work to inform your own re-visioning of the purposes of education, why not consider the Open University's new postgraduate module EE830 *Learning and teaching: educating the next generation*, which ran for the first time in October 2018. In this module we will be evaluating the Matthews paper and others which examine how education needs to develop inclusive practices, acknowledging that children arriving in a country's schools are not a homogeneous group.

If you are interested in signing up for this masters module please email WELS-ECYS-Masters@open.ac.uk to find out more.





Week 5: How will new technologies challenge ideas of education?

Introduction



Figure 1

Welcome to Week 5 of Looking globally: the future of education.

During Weeks 3 and 4 you considered what education for a sustainable future might mean by focusing on environmental and demographic issues.

A further challenge to education systems is that of technological change and this section will ask you to look at this issue in more detail. There are, and will be even more, significant technological changes in the world to which society will need to respond: some opportunities allowing more and better communication across the world, but also some challenges as the concept of work and earning a living starts to alter. As you engage with the resources here, think about what their impact will be on the education systems that you are familiar with.

This week will end with a quiz – which is part of the assessment for your badge – on all the ideas that have been discussed in Weeks 3, 4 and 5 in order to help you to be ready for the work on drawing all the ideas together in Week 6.



Aims and activities

In Week 5 you will:

 reflect on the implications of global technological drivers for the possible purposes of education.

Activities should facilitate understanding of:

- potential ways in which technologies might impact on society and thus on the purposes of education
- automation as a key theme related to technological developments.

Week 5 activity planner

Activity	Details	Time
1	Watch the seven-minute 'Did you know' video and consider the reflection points.	45 minutes
2	Watch the first couple of minutes of the video <i>Humans need not apply</i> and consider the reflection points.	30 minutes
3	Listen to the first five minutes of the BBC radio programme <i>The Public Philosopher</i> . Then find a relevant image to share on OpenStudio.	60 minutes
4	Read the blog post <i>Creativity vs robots</i> and consider the reflection points for both those providing and receiving education.	45 minutes
5	Consider some reflection points about what life would be like without the need for employment.	15 minutes
6	Construct a 200 word summary of your notes, then share it on the course forum. Read others' contributions also.	45 minutes
Quiz	Answer ten questions. This will form part of the assessment for the badge.	20 minutes



1 The impact of technology on all our lives

Every time you read a newspaper or watch TV, you will see evidence that technology is already affecting the world, especially in terms of the way we work. It may not be just those leaving school with few qualifications that are affected – skilled and unskilled workers alike are likely to be affected by technology's impact in the workplace. As the Sustainable Development Goals stated, education must include lifelong learning so that workers can be flexible and take alternative employment (United Nations, 2015). Those with a better education remain more likely to find work, but as Ken Robinson said in the video you watched in Week 1, RSA Animate: Changing Education Paradigms (Robinson, 2010), qualifications will help, but they are already no longer a guarantee. Those who leave school with no or very few qualifications in industrialised societies may face being pushed out of the workforce altogether.

At the same time, social media is allowing us to connect across the world in ways unheard of just a few years ago. Ideas can be discussed despite huge distances separating the participants. Big data and 'the internet of things' allow innovations to be accelerated because the technology is connected and available. The 'internet of things' is a term used to describe the growing interaction between physical objects that contain software controlled electronics, sensors and/or actuators. Such objects are capable of being connected in a network which facilitates control and exchange of data between the networked objects. The internet of things may include such objects as home heating, ovens and toasters that can be controlled from a mobile phone.

Education is being changed by such developments as artificial intelligence and machine learning, which offer learning beyond conventional education environments and change the need for fact-based education. More people can participate in educational activities and have the freedom to develop their own interests and capabilities. Society also needs innovators, computer scientists, software and hardware engineers to develop these systems as well as members of society (perhaps ethicists and politicians) to consider the implications of these new applications.

Activity 1 How will technology change our lives?

Allow approximately 45 minutes

Follow the link to watch the video 'Did you know?'.

Think about:

- How do you think the technological changes shown in the video will affect society?
- What will those changes mean for an education system?



2 What do we mean when we talk about automation?

Carl-Benedikt Frey and Michael Osborne, of Oxford University, calculated that 47% of existing jobs in America are susceptible to automation (Frey & Osborne, 2013).

Activity 2 Will there still be jobs for people?

Allow approximately 30 minutes

Follow the link to watch the video <u>Humans need not apply</u> (2014). Although the video is 15 minutes long, the first couple of minutes will be enough to scope the likely changes ahead.

The underlying message of the video is that in the relatively near future there will be very few jobs as we understand them. However, other commentators are not so negative. Tom Malone, a management professor at the Massachusetts Institute of Technology and author of *The Future of Work* (2004) is more positive, stating that the history of other technological transitions gives cause for optimism. He says; 'In every single case where people have worried about that, in the long run just as many jobs were created as destroyed' (Malone, 2004).

Think about:

- Do you agree with the opinions in the video, or with Tom Malone?
- Can you think of an example of where the development of technology has led to the creation of a new set of jobs, rather than a loss?

Various industries are already affected by automation, or are about to be.

Activity 3 The impact of automation on employment Allow approximately 60 minutes

- 1. Listen to the first five minutes of The Public Philosopher's Would life be better if robots did all the work? (2017)' to hear people's views on the type and impact of automation on employment. Consider the range of tasks and jobs which are already being affected, from self-service grocery tills to robotised phone calls, and those which are likely to be affected in the future, from self-driving cars negating the need for taxi drivers to medical imagery analysis and diagnostics reducing the workload of healthcare professionals.
- 2. Find an image which you think represents the impact of automation on employment. This might be an image of your own or an image found which can be shared more widely through creative commons licensing (see our Finding copyright-cleared images guide for more information on this). The image might be a job you can imagine being automated, a job which is now automated but was carried out by humans, or an image which represents how you feel about the question posed by the Public Philosopher in the extract of the debate you



listened to. Post your image in the <u>OpenStudio</u> gallery (for guidance on this, see <u>Using OpenStudio</u>), and include a comment with your thoughts.



3 Automation and education



Figure 2 Does technology threaten education, or should it be invited in?

Some people say that if you eliminate workers and people become unemployed or their wages fall, consumers will have less purchasing power to buy the products and services produced by the economy. As a result, there will be less and less demand. This links in with the reasoning behind human capital approaches to thinking about society covered in Week 2. In a recent interview, Martin Ford, the author of *Rise of The Robots: Technology and The Threat of a Jobless Future* (Ford, 2016), spoke about how, in the world that exists today, jobs and incomes are coupled together.

If you don't have a job, you don't have an income. It could be a utopian outcome if you had an income independently from a job. You wouldn't have to work at something you didn't enjoy, but you would still have income to participate in the economy and help drive economic growth and all those things that we need people to do.

(Ford, 2016)

Currently, a few countries are experimenting in this way; for example, Finland is experimenting with paying everyone a small wage regardless of whether they work or not (*Guardian*, 2017). You might feel that this is aligned more closely with a rights-based approach to viewing society, which could be extended to a capabilities approach if everyone in that society was encouraged to live as they wanted to live and develop the capabilities they needed for this existence (with or without paid employment).

One element that has traditionally been viewed as setting human beings apart from machines is that of creativity. Creativity does not only refer to artistic and craft-based work – although, of course, that plays a big part – but also activities that require lateral thinking and emotional responses. Research by NESTA (Bakhshi and Windsor, 2015) has shown that roles requiring skills that are uniquely human – like social intelligence, creativity or manual dexterity – are less likely to be automated. In a recent study, they found that 21% of US employment and 23% of UK employment requires people to be 'highly creative.' Ironically, these are generally jobs that are not particularly well remunerated financially at the current time. Creative jobs include artists, musicians, filmmakers and other craftspeople.

Other areas where it is difficult to see automation being widely used are in the care industries such as medicine and nursing – areas where it is important to respond to



patients' and clients' physical and emotional needs. It will be interesting to see if anyone has reflected these thoughts in their posts to the gallery in Activity 3.

Activity 4 How does automation affect education? Allow approximately 45 minutes

Read the blog post <u>Creativity versus robots</u> (2014) to reflect on some perspectives on what automation might mean for society. Use your reading to stimulate reflection on the implications for education; firstly, for those involved in providing educational provision and, secondly, for those being educated.

Think about:

- There are many types of employment in the education sector make a list of 5– 10 different roles.
- Which of these roles in education do you think could be automated? Which roles could not? Consider the reasons for your choices. You may imagine new roles which result from automation.
- How does thinking about the impact of automation on employment affect the
 purpose of education in preparing the next generation? You might also want to
 consider educational implications for those in work, including those in the
 education sector.

Optional further study

If you would like to read further about this issue, follow this link to skim through the report:

The creative economy and the future of employment: Why the UK needs 1 million new creative jobs by 2030 and what the government can do about it

This expands on the thinking in the blog post in terms of implications for society and identifies five recommendations for policy makers (Bakhshi, H. & Windsor, G., 2015).



4 Educating for a technological future

If jobs are at risk, what does that mean for education? In Week 2, three models of thinking about education were discussed. Under the human capital model, education is seen as an investment of time and money with the expectation of return from future gainful employment. But the capabilities model implies that education should be directed at developing the kinds of capabilities that allow an individual to achieve outcomes that they value. Also, think back to the ideas in Ken Robinson's video *Changing Education Paradigms* that you viewed in Week 1. Can creative education of the sort he discussed be automated? Similarly, Paul Warwick's views about education for sustainable development argue for the need for creativity in education, as introduced in Week 3, as well as developing 'pedagogies of compassion' (Warwick, 2016). Could automation challenge or complement such visions for the purpose of education?

Activity 5 Decoupling work from income Allow approximately 15 minutes

Think about:

- How do we decouple work from income? Try some divergent thinking, as
 discussed by Ken Robinson in the video you watched in Week 1. Make a list of
 the ways you might spend your time if you did not have to work to get an income.
 You might find some of the images uploaded to the gallery from Activity 3 helpful
 in thinking about this.
- Which ideas in your list could be considered as making a valuable contribution to society as a whole? Are all ways of spending your time equally valuable if work and income are decoupled?
- How do these reflections affect your thinking about the purpose of education?

Now, in the final activity for this week, you will bring together the various ideas you have considered to draw some conclusions about a possible future.

Activity 6 What does a technological future mean for education? Allow approximately 45 minutes

- 1. Reflect on the changes that may have to happen in education as a result of technological developments in the workplace.
- 2. Now combine these into one 200-word summary using the notes you made as a result of all the activities this week, including:
 - the issues raised in the *Did you know?* video in Activity 1 and *Humans need not apply* video in Activity 2
 - the ideas you heard discussed in the BBC Radio 4 Global Philosopher extract in Activity 3
 - the images posted and discussed in Activity 3
 - the blog post 'Creativity versus robots' in Activity 4



- your reflections on the changes that may have to happen in education because of technological changes (in response to all the Activities 1–5).
- 3. Post your summary on the <u>course forum</u>. Access other posts and read and respond to two that interest you; try to make sure one of these contains views that you disagree with. This will require you logging into the forum on more than one occasion, which might take you into next week, to allow others time to post.

Remember that you need to add at least 3 posts to the forum in order to gain your badge.

Please note: we may wish to reuse your forum contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email WELS-ECYS-Masters@open.ac.uk.



5 Week 5 quiz

Now it's time to completed the Week 5 quiz. It is similar to the Week 2 quiz, but this time instead of answering 5 questions there will be 10.

Week 5 compulsory badge quiz

Remember, the quiz counts towards your badge. If you're not successful the first time, you can attempt the quiz again in 24 hours.

Open the quiz in a new tab or window then come back here when you've finished.



6 Summary

In this week you have explored some developments in technology that are happening now or very imminently, the impact they may have on the world (particularly on employment) and what role education can and should play in preparing for these changes.

Week 6 will support you in thinking critically about the ideas you have explored in the preceding weeks and in your own personal vision of an education system for the future.

Further reading

If you have found the issues discussed this week of particular interest, you may want to read further about the way technological developments are affecting society and hence the education needed to prepare the next generation. The following article about the way the 'internet of things' is affecting the way we learn is available open access.

Reference: Meola, A. (2016) 'How IoT in education is changing the way we learn', *Business Insider UK*, 20 December [Online]. Available at:

http://uk.businessinsider.com/internet-of-things-education-2016-9 (Accessed 5 October 2017).

If you would like further access to published research, and support in critically reading and reviewing such work to inform your own re-visioning of the purposes of education, why not consider the Open University's new postgraduate module EE830 *Learning and teaching:* educating the next generation, which ran for the first time in October 2018. In this module we will be evaluating the sources of information available to us as educators, such as the article above, which is essentially advertising products linked to the lines of argument presented. We will be reviewing what counts as evidence and searching out peer reviewed publications which help us learn from studies internationally. If you are interested in signing up for this masters module, please email WELS-ECYS-Masters@open.ac.uk to find out more.





Week 6: How should education respond to the challenges of the future?

Introduction



Figure 1

Welcome to Week 6 of Looking globally: the future of education.

In this course you have been challenged to consider what education is for – that is, the purposes of education. The rationale for the next series of activities is to support you in thinking critically about the ideas introduced in Weeks 1–5 and how they could contribute to your vision for an education system fit for the future.



Aims and activities

In Week 6 you will:

begin to understand how education can respond to the opportunities and challenges
of the future with renewed purpose.

Activities should extend understanding already considered in the previous weeks of:

- how ideas explored in the course may impact on your own education system
- the potential impacts of key globally experienced drivers on the future of young people in your context
- what the characteristics of an education fit for the future might be.

Week 6 activity planner

Activity	Details	Time
1	Consider the reflection points, and then write three different posts for the course forum. Read some of the other posts.	60 minutes
2	Review your learning from the past three weeks and consider the reflection points.	60 minutes
3	Read through a resource about the Alternative Basic Education for Karamoja-ABEK Program and then consider the reflection point.	60 minutes
4	Create a detailed mind map summarising your learning from the course.	60 minutes
5	Write a 200-word course forum post.	60 minutes



1 Thinking critically about the human capital model

Many people's views of education have been reflected in a human capital way of thinking (Week 2). In the human capital way of thinking, society as a whole views education as about training a workforce suitable to sustain economic growth, and individuals within that society see education as a way to amass personal wealth markers.

Activity 1 Is the human capital model fit for the future? Allow approximately 60 minutes

- Think back and identify ideas that you have come across in Weeks 3, 4 and 5 or elsewhere that indicate this model is a valid way of thinking and can underpin ideas about education. For example, you considered in Week 4 how education could help people to use resources more wisely, while still continuing economic growth.
- 2. Now consider ideas that make the human capital way of thinking cause difficulties. For example, Ken Robinson's view from the *Changing Education Paradigms* video in Week 1 that education is seen as a production line because people think only in economic terms. Overall, do you consider the human capital model to be a suitable one on which to base an education system fit for the future?
- Post on the <u>course forum</u> why you consider the human capital model to be a
 useful way of thinking about education or not. Make three posts: the first based on
 environmental reasoning about education, the second on demographic reasoning
 and the third on technological reasoning. Read several of the other posts.

Remember that you need to add at least 3 posts to the forum in order to gain your badge.

Please note: we may wish to reuse your course forum contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email WELS-ECYS-Masters@open.ac.uk.



2 Thinking critically about the rights-based model

Many global organisations declare that education is the right of every child. You have read in Week 3 that education is seen as threading through all seventeen of the Sustainable Development Goals (United Nations, 2015).

Referring to the previous Millennium Development Goals in 2011, Save the Children said:

Failing to meet these goals will have a serious impact upon children – and on all our futures. When children do not have access to adequate education, societies suffer and a country's development is impeded. Children who miss out on education will not have the chance to develop the skills they need to become better citizens, parents and community members nationally and globally.

(Save the Children, 2011)

The right of education for all is seen as vital for the future.

Activity 2 Rights and the key drivers for change Allow approximately 60 minutes

Look back through Weeks 3, 4 and 5 and identify where education is seen as providing the solution to certain problems. For example, global warming and population control.

Think about:

- Is the education system that you know best, meeting the sustainable development goal of 'quality inclusive education' and 'lifelong learning opportunities for all'?
- Are some individuals/groups excluded from education or learning. How? Why?
 For example, do some children miss out on education because they have duties that keep them at home or because they have physical disabilities?
- Do you agree that education should concern itself with the global issues discussed in Weeks 3, 4 and 5? Are there other issues that should be addressed first, particularly if you are thinking about education from a 'rights-based' perspective?
- Do you feel that education, as it is realised at the moment in your context, can concern itself with the changes you identified in Weeks 3, 4 and 5? What barriers might there be?
- How could the education system that you know best, begin to help young people know how to address the global problems that you have identified as requiring attention in education?



3 Thinking critically about the capabilities model for education

How you design an education system depends on how you see the purpose of education. The human capital model and the rights-based model take different perspectives: that education is about achieving economic growth, and that education is a fundamental right, regardless of the perceived usefulness. As you have seen, both models have limitations as a way of thinking about education in the modern world. The capabilities model takes a more holistic approach, recognising that economic and intellectual well-being are important, but is relatively new and untested as a framework on which to build an education system.

If children have the right to education, what should that education look like? The capabilities approach begins to answer that question, in that it focusses on the individual and the extent to which the education system can facilitate each individual developing the capabilities that they require to achieve culturally and contextually valued outcomes.

Activity 3 The capabilities model in action

Allow approximately 60 minutes

In order to think about what the capabilities model for education might look like in practice, read

this resource about the Alternative Basic Education for Karamoja-ABEK Program.

There is also an optional audio on the site which you may like to listen to, but this is not required.

The education system in the Karamoja region in Uganda changed in consultation with those who were going to use it. The school day was restructured so that the children could complete their family chores, which was seen as important in the social context. This structural change meant that those children could access education, and it seems to have been successful in the eyes of the community which it serves.

Think about:

What is your reaction to the way education is offered to these children in Uganda?
 Be critical – ask yourself how these children are advantaged by offering schooling in this way, and how they are disadvantaged.

Educational reform – a case study

One example [of a capabilities-based approach to education] is that of the Toronto (Canada) Board of Education which recently undertook a reform of its curriculum through a massive community consultation. Thousands of parents, students, staff and members of the public contributed to full-day community consultations aimed at exploring how education should respond to the demands of a changing world. The focus of the inquiry was the question 'What should students know, do and value by the time they graduate from school?' Although the notion of 'sustainability' was not



imposed, it emerged as an essential requirement in the course of the consultation.

The education that parents and the community wanted for their children was in many respects hardly revolutionary or even surprising.

The six graduation outcomes specified were: literacy; aesthetic appreciation and creativity; communication and collaboration; information management; responsible citizenship; and personal life skills, values and actions. These differ from most traditional curricular objectives in that they are broader and more closely related to the needs and organisation of life than to the requirements and structures of schooling.

The essence of the Toronto reform is that the curriculum is no longer focused exclusively on the traditional core subjects of language, mathematics, history, etc. Informed by the new vision of what the community felt tomorrow's students would need to know and be able to do, these disciplines underwent major revision. Mathematics, for example, now includes the skill of comprehending extremely large and extremely small numbers – which are essential to being environmentally literate and capable of understanding relative risk factors, both in personal life and at work. Health now includes environmental issues including cancer, allergies and food additives as well as 'consumerism'.

In the Toronto reforms, the curriculum that the community wanted for its children can be interpreted as 'capabilities' based. This case study presents a compelling argument for thinking about education in this way. Much of the success of the Toronto reform is due to the fact that it was not – and was not seen to be – an effort to change education to meet goals set by an elite, or unduly influenced by outside pressures. The impetus to change came from within. The new curriculum had equal or greater academic rigour but far greater relevance to life outside school walls. Education designed around sustainable development makes children aware of the growing interdependence of life on Earth – interdependence among peoples and among natural systems – in order to prepare them for the future

(UNESCO, 1997)

Think about:

- What challenges might there be in organising education in this way in your context?
- Most countries continue to offer what Ken Robinson describes in the Changing Education Paradigms video you watched in Week 1 as a school system using an industrial approach to learning, moving children along systematically in managed groups based on age and focusing on knowledge not capabilities. What arguments might convince people that some changes may be needed in your context?



4 What needs to change?

You have studied many different ideas in this course, all with the purpose of helping you think about what education for the next generation will look like and what steps will need to be taken soon to begin to achieve that.

Activity 4 An education system fit for the next generation Allow approximately 60 minutes

To complete this reflective activity designed to maximise your learning from this course, you will need to return to the mind map you created in Week 1 Activity 7, and then follow these steps:

- Either create a new mind map or add to your original one with ideas that you now have about what needs to change in the educational system you are most familiar with to prepare the next generation of children for the possible futures they may face.
- 2. Add a second layer to your mind map (in a different colour) giving your reasons why you think these changes are necessary.
- Now create a third layer of ideas in your mind map (in a third colour) recording the changes that must be made to the education system you know best so that it more closely resembles an education system you feel is 'fit' for the next generation.

In your final activity for this course you will bring together the thinking you have done over the last three activities to help you articulate your own personal values for education.

Activity 5 Bringing your ideas together

Allow approximately 60 minutes

In the <u>course forum</u> write a summative statement of about 200 words starting: 'The values that I hold about education are ...'

In this instance, a value reflects the worth or importance a person attaches to something; our values are often reflected in the way we live our lives or act in our professional career.

To answer the question, think about the ideas and values that have been discussed that you see as important enough that you would be uncomfortable working in a system that did not accommodate them. They may, for example, be that an education system should do one of the following:

- prepare young people for economic success in their lives and careers, from the human capital model
- give every young person, regardless of gender, religion or ability, the right to a quality education, from the rights model
- prepare young people to have the ability to choose what sustainable success looks like for them in their lives, from the ideas on demographic issues and the capabilities model.



Remember that you need to add at least 3 posts to the forum in order to gain your badge.

Please note: we may wish to reuse your course forum contributions, anonymously, in future sessions of this course. If you wish to opt out of this, email WELS-ECYS-Masters@open.ac.uk.



5 Summary

In this course you have engaged with a great deal of thinking about what the purposes of education may be, considering different education models and the key drivers for change in the system. As a professional engaged in education, while you have been studying this course you will have been applying your thinking to what you know and do in the context of your own education system. This has been the most important aspect of the course, as it is designed to equip you with the knowledge and the critical reasoning to know both:

- what is good in your context and why it is good
- what must be worked on and developed if your educational context is going to meet the needs of young people in the future.

If you have been studying this course as a stand-alone free course, consider signing up to study the full masters module, EE830 *Learning and teaching: educating the next generation*, and take the opportunity to develop your knowledge further. If you are interested in signing up for this masters module, please email WELS-ECYS-Masters@open.ac.uk to find out more.

If you have studied this course as part of your masters module, ensure you take the breadth of ideas that you have been exposed to in this part of the course into your assessed tasks and, perhaps more importantly, into your thinking and actions in education.

Remember that in order to get the badge, you need to have visited every page of the course, got a mark of at leasr 50% in both of the quizzes, and made at least three contributions to the course forum.



Tell us what you think

Now you've come to the end of the course, we would appreciate a few minutes of your time to complete this short <u>end-of-course survey</u>. We'd like to find out a bit about your experience of studying the course and what you plan to do next. We will use this information to provide better online experiences for all our learners and to share our findings with others. Participation will be completely confidential and we will not pass on your details to others.

References

Dewey, J. (1934) 'Individual Psychology and Education', *The Philosopher*, vol. 12, no. 1, pp. 1–6 [Online]. Available at

http://www.the-philosopher.co.uk/2016/08/individual-psychology-and-education-1934. html (Accessed 15 September 2017).

Did you know in 2028... (2014) YouTube video, added by The Centre Online [Online]. Available at https://www.youtube.com/watch?v=QpEFjWbXog0c (Accessed 31 August 2017).

Numbers in Action (2015) YouTube video, added by The Global Goals [Online]. Available at https://www.youtube.com/watch?v=Mdm49 rUMgo (Accessed 15 September 2017).

RSA Animate: Changing Education Paradigms (2010) You Tube video, added by The RSA [Online]. Available at https://www.youtube.com/watch?v=zDZFcDGpL4U (Accessed 31 August 2017).

Tuomainen, A. (2014) The Healer, London, Vintage Books.

United Nations (2006) *UN Millennium Project* [Online]. Available at http://www.unmillenniumproject.org/goals/ (Accessed 31 August 2017).

Cobham, A. and Klees, S. (2016) *Global Taxation: Financing Education and the Other SDGs* (Background Paper for the Education Commission) [Online]. Available at http://www.taxjustice.net/wp-content/uploads/2016/11/Global-Taxation-Financing-Education.pdf (Accessed 15 September 2017).

Freire, P. (1970) Pedagogy of the Oppressed, New York, Continuum.

Gore, C. (1997) 'Irreducibly social goods and the informational basis of Amartya Sen's capability approach', *Journal of International Development*, vol. 9, no. 2, pp. 235–250 [Online]. Available at

http://onlinelibrary.wiley.com/doi/10.1002/(SICI)1099-1328(199703)9:2%3C235::AID-JID436%3E3.0.CO;2-J/abstract (Accessed 31 August 2017).

Hanley-Maxwell, C. and Collet-Klingenberg, L. (2011) *Education*, Thousand Oaks, CA, Sage.

Kellner, D. (1989) *Critical Theory, Marxism, and Modernity*, Cambridge and Baltimore, Polity and John Hopkins University Press.

King, M.-L. (1947) 'The Purpose of Education', drmartinlutherkingjr.com [Online]. Available at http://www.drmartinlutherkingjr.com/thepurposeofeducation.htm (Accessed 2 October 2017).



Klees, S. (2016) 'Human Capital and Rates of Return: Brilliant Ideas or Ideological Dead Ends?', *Comparative Education Review*, vol. 60, no. 4, pp. 644–72 [Online]. Available at http://www.journals.uchicago.edu/doi/abs/10.1086/688063 (Accessed 31 August 2017).

Meikle, J. (2013) 'Malala Yousafzai urges British girls not to take education for granted', *Guardian*, 7 October [Online]. Available at

https://www.theguardian.com/world/2013/oct/07/school-malala-yousafzai-panorama (Accessed 31 August 2017).

Naskar, A. (2016) *Prescription: Treating India's Soul*, United States of America, Amazon Publishing Company.

Nussbaum, M. (2003) 'Capabilities as fundamental Entitlements: Sen and social justice', *Feminist Economics*, vol. 9, no. 2–3, pp. 33–59 [Online]. Available at http://www.tandfonline.com/doi/abs/10.1080/1354570022000077926 (Accessed 31 August 2017).

Pogge, T. (2002) *World Poverty and Human Rights: Cosmopolitan Responsibilities and Reforms*, Cambridge, Polity Press.

Robeyns, I. (2006) 'Three models of education', *Theory and Research in Education*, vol. 4, no.1, pp. 69–84 [Online]. Available at

http://journals.sagepub.com/doi/abs/10.1177/1477878506060683 (Accessed 31 August 2017).

Sen, A. (2010) The Idea of Justice, London, Penguin Books.

The New York Times (2012) 'Transcript of Bill Clinton's Speech to the Democratic National Convention', *The New York Times*, 5 September [Online]. Available at http://www.nytimes.com/2012/09/05/us/politics/transcript-of-bill-clintons-speech-to-the-democratic-national-convention.html (Accessed 31 August 2017).

The Sydney Morning Herald (2011) 'Julia Gillard's speech to Congress', *The Sydney Morning Herald*, 10 March [Online]. Available at

http://www.smh.com.au/world/julia-gillards-speech-to-congress-20110309-1boee.html (Accessed 31 August 2017).

Tikly, L. and Barrett, A. (2011) 'Social justice, capabilities and the quality of education in low income countries', *International Journal of Educational Development*, vol. 31, no. 1, pp. 3–14 [Online]. Available at

https://www.researchgate.net/publication/253415007_Social_justice_capabilities_and_quality of education in low income countries (Accessed 31 August 2017).

United Nations (1948) *Universal Declaration of Human Rights* [Online]. Available at http://www.un.org/en/universal-declaration-human-rights/ (Accessed 1 September 2017).

United Nations (1997) *If information and knowledge are central to democracy, they are conditions for development, says secretary-general* [Online]. New York, NY 10017, Press release SG/SM/6268, United Nations. Available at

http://www.un.org/press/en/1997/19970623.sqsm6268.html (Accessed 6 October 2017).

UNICEF (1989) 'The United Nations Convention on the Rights of the Child', London, UNICEF.

Unterhalter, E. (2005) 'Global inequalities, capabilities, social justice: the millennium development goal for gender equality in education', *International Journal for Educational Development*, vol. 25, no. 2, pp. 111–122.

Walker, P. (2013) 'Michael Gove reveals the surprising inspirations behind his reforms', *Guardian*, 5 February [Online]. Available at

https://www.theguardian.com/education/2013/feb/05/michael-gove-inspirations-jade-goody (Accessed 1 September 2017).



Whitman, J. (2014) Westword [Online]. Available at

http://www.westword.com/arts/dancer-damien-woetzel-on-how-to-make-art-a-relevant-productive-part-of-any-place-5803066 (Accessed 2 October 2017).

Climate Change: Professor Brian Cox clashes with sceptic Malcolm Roberts (2016) YouTube video, added by BBC News [Online]. Available at:

https://www.youtube.com/watch?v=sG8gLt4GChg (Accessed 5 September 2017).

Davenport, C. and Lipton, E. (2016) 'Trump Picks Scott Pruitt, Climate Change Denialist, to Lead E.P.A.', *The New York Times*. 7 December [Online]. Available at: https://www.nytimes.com/2016/12/07/us/politics/scott-pruitt-epa-trump.html?mcubz=3 (Accessed 7 September 2017).

Educational Development Unit, (2015) *Paul Warwick: Sustainability Education in HE – towards a pedagogy of hope, challenge and controversy?* [Video]. Available at https://vimeo.com/133751144 (Accessed 3 October 2017).

English Oxford *Living* Dictionaries (n.d.). 'Sustainability' in English Oxford *Living* Dictionaries [Online]. Available at

https://en.oxforddictionaries.com/definition/sustainability (Accessed 3 October 2017).

Fragile Planet (1999) BBC World Service, 17 August [Online]. Available at http://www.bbc.co.uk/programmes/p033jsvs (Accessed 5 September 2017).

OECD (2016) The Sustainable Development Goals: An overview of relevant OECD analysis, tools and approaches [Online], Paris: OECD. Available at https://www.oecd.org/dac/The%20Sustainable%20Development%20Goals%20An%20overview%20of%20relevant%20OECD%20analysis.pdf (Accessed 5 September 2017).

Shared Planet (2013) BBC Radio 4, 5 August [Online]. Available at http://www.bbc.co.uk/programmes/b037hmx8 (Accessed 5 September 2017).

Unesco Office in Brasilia (n.d.). Sustainable Development Goals for Education [Online]. Available at

http://www.unesco.org/new/en/brasilia/post-2015-development-agenda/unesco-and-sustainable-development-goals/sustainable-development-goals-for-education/ (Accessed 3 October 2017).

World Meteorological Organisation (2017) Climate breaks multiple records in 2016, with global impacts [Online]. Available at

https://public.wmo.int/en/media/press-release/climate-breaks-multiple-records-2016-global-impacts (Accessed 5 September 2017).

Cumming, V. (2016) How many people can our planet really support? [Online]. Available at

http://www.bbc.com/earth/story/20160311-how-many-people-can-our-planet-really-support (Accessed 5 September 2017).

Goodyear, M. (2008) 'Policies to Address Population Growth Nationally and Internationally' [Online] Available at:

https://www.healthknowledge.org.uk/public-health-textbook/health-information/3a-populations/population-growth (Accessed 19 October 2017)

Khawaja, B., Martinez, E. and Van Esveld, B. (2017) *World Report 2017 – The Lost Years:* Secondary Education for Children in Emergencies [Online]. Available at https://www.hrw.org/world-report/2017/country-chapters/global-0 (Accessed 5 September 2017).

Migration Policy Institute Data Hub (2017) *International Migration Statistics* [Online]. Available at



http://www.migrationpolicy.org/programs/data-hub/international-migration-statistics (Accessed 5 September 2017).

Bakhshi, H. and Windsor, G. (2015) *The creative economy and the future of employment:* Why the UK needs 1 million new creative jobs by 2030 and what the government can do about it [Online]. London, Nesta. Available at

https://www.nesta.org.uk/sites/default/files/the_creative_economy_and_the_future_-of_employment.pdf (Accessed 5 September 2017).

Did you know? 2016 (2016) YouTube video, added by mesjms [Online]. Available at https://www.youtube.com/watch?v=uqZiIO0YI7Y (Accessed 5 September 2017).

Ford, M. (2016) *Rise of The Robots: Technology and The Threat of a Jobless Future*, Ant Hive Press.

Frey, C. and Osborne, M. (2013) *The future of employment: How susceptible are jobs to computerisation?* [Online]. Oxford, Oxford Martin School, University of Oxford. Available at

http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf (Accessed 5 September 2017).

Humans need not apply (2014) YouTube video, added by CGP Grey [Online]. Available at https://www.youtube.com/watch?v=7Pq-S557XQU (Accessed 5 September 2017).

Malone, T. (2004) The Future of Work, Harvard, Harvard Business School Press.

Nesta blog (2014) 'Creativity versus robots?', *Nesta*, 3 November [Blog]. Available at http://www.nesta.org.uk/blog/creativity-versus-robots (Accessed 5 September 2017).

Robinson, K. (2010) 'RSA Animate: Changing Paradigms' *The RSA* [Online]. Available at: https://www.thersa.org/discover/videos/rsa-animate/2010/10/rsa-animate—changing-paradigms?gclid=EAlalQobChMI9_H63_ui1QIVxLztCh3H4wcvEAAYA-SAAEgKNzPD BwE (Accessed 5 September 2017).

Sodha, S. (2017) 'Is Finland's basic universal income a solution to automation, fewer jobs and lower wages?', *Guardian*, 19 February [Online]. Available at https://www.theguardian.com/society/2017/feb/19/basic-income-finland-low-wages-fewer-jobs (Accessed 5 September 2017).

The Public Philosopher (2017) BBC Radio 4, 7 March [Online]. Available at http://www.bbc.co.uk/programmes/b08gxndc (Accessed 5 September 2017).

United Nations (2015) *The Global Goals* [Online]. Available at http://www.globalgoals.org/ (Accessed 5 September 2017).

Warwick, P. (2016) 'Education for Sustainable Development: a movement towards pedagogies of civic compassion', *FORUM*, vol. 58, no. 3, pp. 407–14. Available at: https://pdfs.semanticscholar.org/b113/9037a0bd4006e4455ebfb52ff17ab1db2eef.pdf (Accessed 5 September 2017).

Olaka, D. (2011) 'Karamoja Elders Ask Government to Prioritize ABEK' [Online]. Available at

https://ugandaradionetwork.com/story/karamoja-elders-ask-government-to-prioritize-abe-k#ixzz4fYM8NL2d (Accessed 15 June 2017).

Save the Children (2011) Education for all: Making the right to educationpart of every child's reality [Online]. Save the Children. Available at

https://resourcecentre.savethechildren.net/sites/default/files/documents/4476.pdf (Accessed 27 October 2017).

United Nations (2010 [1997]) United Nations Educational, Scientific and Cultural Organization, Educating for a Sustainable Future, A Transdisciplinary Vision for



Concerted Action [Online]. Available at

http://www.unesco.org/education/tlsf/mods/theme_a/popups/mod01t05s01.html#edu-re (Accessed 5 September 2017).

United Nations (2015), *The Global Goals* [Online]. Available at http://www.globalgoals.org/ (Accessed 5 September 2017).

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