

# OCR

Oxford Cambridge and RSA

**Monday 8 June 2015 – Afternoon**

**A2 GCE CRITICAL THINKING**

**F504/01/RB** Critical Reasoning

**RESOURCE BOOKLET**

**To be issued with the Question Paper**

**Duration:** 1 hour 30 minutes



## **INSTRUCTIONS TO CANDIDATES**

- Read and use Documents 1, 2, 3 and 4 to answer the questions.

## **INFORMATION FOR CANDIDATES**

- This document consists of **8** pages. Any blank pages are indicated.

## **INSTRUCTION TO EXAMS OFFICER/INVIGILATOR**

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# Digital Technology

## Document 1

### Are droids taking our jobs?

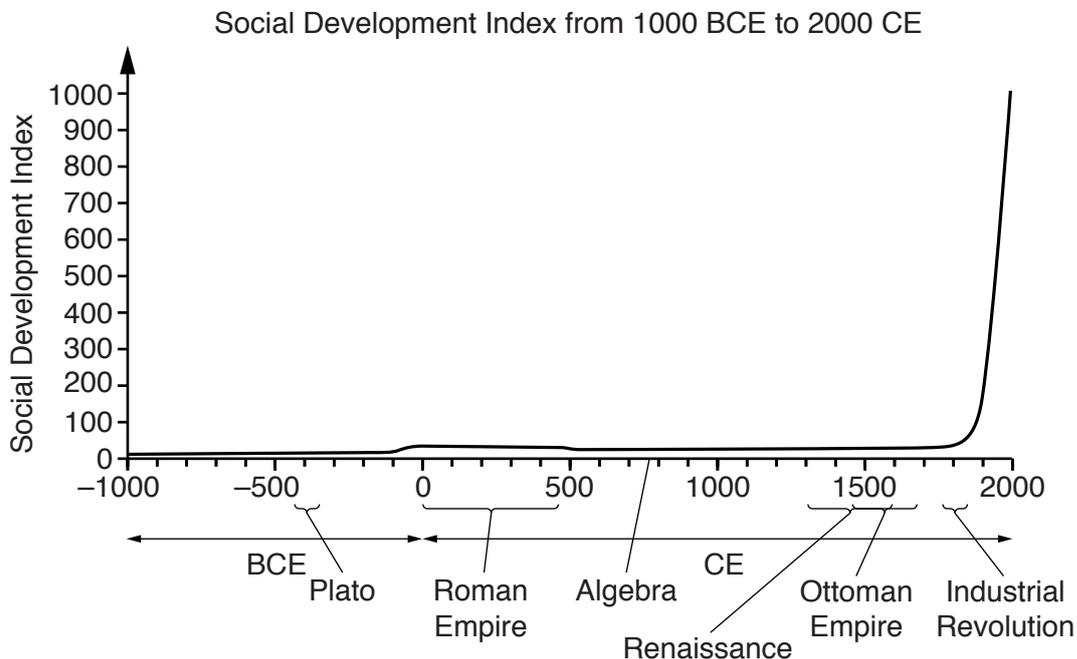
Just in the past couple of years, we've seen digital tools display skills and abilities that they never, ever had before, and that eat deeply into what we human beings do for a living. Let me give you a couple of examples. 1

Throughout all of history, if you wanted something translated from one language into another, you had to involve a human being. Now we have multi-language, instantaneous, automatic translation services available for free via smartphones. 2

Digital technologies are starting to flex their muscles in the physical world as well. I had the chance a little while back to ride in the Google autonomous car. There are about three and a half million people who drive trucks for a living in the United States. I think some of them are going to be affected by this technology. 3

So the droids are coming for our jobs. In the not-too-long-term, we're going to find ourselves in an economy that is very productive but that just doesn't need a lot of human workers, and managing that transition is going to be our greatest challenge. 4

But despite this challenge, I am supremely confident that digital technologies are going to take us into a near-perfect world. And to explain why, I want to pose a ridiculously broad question: what have been the most important developments in human history? 5



A social development index measures a range of factors, in the structure and framework of a society, which enable the members of the society to achieve their goals and desires. If you graph this index, there has only been one story, one development in human history, that bent the curve, bent it just about 90 degrees, and it is a technology story. The steam engine, and the other associated technologies of the Industrial Revolution, changed the world so much that they made a mockery out of all that came before. They did this by infinitely multiplying the power of our muscles. Now we're overcoming the limitations of our individual brains and infinitely multiplying our mental power. How can this not be as big a deal as overcoming the limitations of our muscles? 6

I hear once in a while, “Okay, but technology is still a tool for the rich world, and digital tools are not improving the lives of the very poor.” Nonsense! The economist Robert Jensen did this wonderful study where he watched what happened to the fishing villages of Kerala, India, when they got mobile phones for the first time. What happened? Prices of fish stabilised, so people could plan their economic lives. Wastage was eliminated. And the lives of both the buyers and the sellers in these villages measurably improved. Jensen very carefully documented what happens over and over again when technology comes for the first time to a community. The lives of people improve dramatically.

7

So our digital technologies are great gifts, and we, right now, have the great good fortune to be living at a time when digital technology is flourishing.

8

So the droids will take our jobs, but focusing on that fact misses the point. The point is that then we are freed up to do other things, and what we are going to do, I am very confident, is reduce poverty and misery around the world. I am extremely confident that what we’re going to do with our new digital tools will be so profound and so beneficial that it’s going to make a mockery out of everything that came before.

9

Andrew McAfee, [TEDxBoston](#) – *TED (Technology, Entertainment and Design) is a non-profit organisation devoted to Ideas Worth Spreading.*

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**Document 3****Technology is the root of all evil**

According to the International Monetary Fund, technological innovation is what causes economic inequality between people. Yes, you read that right: technology – and not just the machinery, but also people with tech skills – is to blame for the fact that some people are dirt poor and others disgustingly rich. The gap between rich and poor has widened by over 9% since 1985. This is because tech skills are so important that people who have them are paid more and more, whereas people without tech skills are being replaced by machines.

**1**

The Register – *The Register is a global online technology publication.*

## Document 4

### The Amish

Amish leaders aim to slow or prevent change if a given technology is seen to be a threat. Amish see threats in technologies which provide easy contact with worldly ideas and values (television, cars), or those which may break down the family or community, by serving as distractions or eliminating the need for relying on others in one's community. Amish also feel that certain labour-saving technologies take more than they give, robbing their children of the ability to learn the value of hard work, for example.

1

The Amish are cautious over what a given device can introduce into a community. The car is one example – when a family owns motor vehicles, mobility is made much easier. Family members may spend extended periods away from home, affecting family ties. Easy transportation can bring one to cities and other areas which Amish tend to view as places of worldly temptation and sin.

2

The historical rejection of telephones goes back to the early 1900s. Reasons for the ban probably included the fact that telephones represented a direct line to the outside world and encouraged gossip. Phones in the home continue to be rejected today, due in part to the symbolic connection to the outside world but also to preserve the institution of the home. Too much phone usage, as any parents of teenagers know, can compromise family life and time spent with family in general.

3

Amish America – *Amish America is a blog about the Amish, a religious community which emigrated to America in the 18th century. They limit interaction with outsiders and isolate themselves from modern technology and mass media because, they believe, community harmony is threatened by anti-religious values such as individualism and pride, which permeate the modern world.*



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