INSTRUCTIONS TO CANDIDATES

Some words and phrases are shaded in the texts as they are referred to in some questions.

Please wait to be told you may begin before turning this page.
Task 1

Read the two abstracts below, which give summaries of two academic articles relating to museum programmes.

ABSTRACT ONE

Doing emotion work in museums: re-conceptualising the role of community engagement practitioners
Ealasaid Munro

Recent years have seen a particular focus on the ways in which museums can contribute to social policy objectives around health and wellbeing (Camic and Chatterjee 2013). Much of this work argues that engagement with museums can be beneficial to those individuals who could be considered marginalised, vulnerable or otherwise excluded. In particular, museum staff and policy makers have emphasised ways in which engagement with museums may positively impact individuals' physical and emotional wellbeing (Jermyn 2001). Research supports this view; there is, for example, a large body of work that seeks to investigate the impact of cultural activities on individuals' self-esteem and self-confidence (see, for example, Galloway and Stanley 2004). Drawing on fieldwork conducted with Glasgow Museums, I argue in this paper that emotions are central to the practice of community engagement, and that the ‘emotional’ nature of community engagement is key to its perceived social impact. My paper focuses predominantly on the delivery of community engagement programmes, and investigates how museum staff understand their impact, before going on to examine the ways in which museum staff encounter and use emotions during the course of their work with the community.

ABSTRACT TWO

Touching Heritage: community health and wellbeing promotion through sustainable and inclusive volunteer programming in the museums sector
Nicholas Vogelpoel et al

The potential for museums to operate as agents of change in the promotion of social inclusion and health and wellbeing is a growing area of research and is aligned with the intersections between cultural engagement and public health. Using a case study analysis, this paper will discuss implications and findings of research and practice arising from a heritage-in-health programme called ‘Touching Heritage’. The programme takes museum objects from University College London collections out to people who by virtue of their health or age would otherwise be excluded from participating in cultural activities, such as those who are hospitalised or residents of care homes. The programme extends access to a wide variety of heritage objects, and actively involves socially excluded/isolated communities and individuals in participatory sessions. The paper will discuss the potential for museums to promote health and wellbeing by recruiting and training volunteers to become community curators and object-handling facilitators. Using a mixed-methods approach to data collection, including surveys, focus groups, interviews and reflexive feedback, the paper will discuss findings related to best practice for the development of volunteer-led outreach programmes that partner museums to hospitals and community healthcare services. The paper will discuss implications for sustainable practice, satellite programming, and best practice in heritage-in-health work.
Task 2

Read the four extracts below, which give the views of four writers on artificial intelligence (AI) and robotics.

A James Woudhuysen

The physicist Stephen Hawking said that AI could become a real threat to mankind, with computers developing sufficient intelligence to assume control. Humans, limited by slow biological evolution, could not compete, and would be superseded. That Hawking himself cannot speak without computer-assistance is an irony. For the fact is that computers are likely to remain a help much more than a hindrance for many years to come. Sure, they might run amok; but that will be to do with bad or malevolent programming, not evil intent on the part of the computer. It is one thing to recognise the rapid increase in computer power; it is quite another to confer on semi-conductors the power to think. Computers are not ‘smart’, any more than cities are. They cannot form aesthetic, ethical, philosophical or political judgments. These are the special faculties of humankind, and no amount of electrons, or so-called ‘digital democracy’, can substitute for them. True, IBM’s Watson supercomputer recently won a game show. But it did not know it had won. The viewers did, but just because a machine passes the Turing test, in that it looks intelligent, that doesn’t mean that it is intelligent.

B Peter Norvig

The notion of the ultra-intelligent machine was introduced in 1965 by mathematician I. J. Good, who worked with Alan Turing at Bletchley Park. Good noted that “the first ultra-intelligent machine is the last invention that man need ever make”, because from then on, the machines would be designing other, ever-better machines, and there would be no work left for humans to do. AI researcher Ray Kurzweil has called this the technological singularity, or the tipping point at which ultra-intelligent machines so radically alter our society that we can’t predict how life will change afterwards, some fearfully predicting human redundancy, with complex legal implications, others envisaging a utopian world filled with endless leisure.

Focusing on these fanciful scenarios has distracted the conversation from the very real societal effects already brought about by the increasing pace of technological change. For 100,000 years, we relied on the hard labour of small bands of hunter-gatherers. A scant 200 years ago we moved to an industrial society that shifted most manual labour to machines. And then, just one generation ago, we made the transition into the digital age. Today much of what we manufacture is information, not physical objects – bits, not atoms. Computers are ubiquitous tools, and much of our manual labour has been replaced by calculations.
C Max Tegmark

In the near term, the goal of keeping AI’s impact on society beneficial motivates research in many areas, from economics and law to security and control. Whereas it may be little more than a minor nuisance if your laptop crashes or gets hacked, it becomes all the more important that an AI system does what you want it to do if it controls your car, your airplane, your pacemaker, your automated trading system or your power grid.

In the long term, an important question is what will happen if the quest for strong AI succeeds and an AI system becomes better than humans at all cognitive tasks. Designing smarter AI systems is itself a cognitive task. Such a system could potentially undergo recursive self-improvement, triggering an intelligence explosion leaving human intellect far behind. By inventing revolutionary new technologies, such a superintelligence might help us eradicate war, disease, and poverty, and so the creation of strong AI might be the biggest event in human history. Some experts, though, have raised the possibility that it might also be the last, unless we learn to align the goals of the AI with ours before it becomes superintelligent.

D Guardian editorial

The European Parliament has urged the drafting of a set of regulations to govern the use and creation of robots and artificial intelligence, including a form of “electronic personhood” to ensure rights and responsibilities for the most capable AI. The status this would confer on robots would be analogous to corporate personhood, which allows firms to take part in lawsuits both as the plaintiff and respondent. It also addresses the risk that overly competitive robots could result in large-scale unemployment, and calls for the serious examination of a universal basic income as one possible solution.

Needless to say the proposals will be extremely controversial. One could argue that, effectively, a law of the nature proposed in this resolution would grant human rights to robots. That’s not going to go down well with companies that are creating robots and AI. If I create a robot, and that robot creates something that could be patented, should I own that patent or should the robot? If I sell the robot, should the intellectual property it has developed go with it? These are not easy questions to answer, and that fact goes right to the heart of this debate.
**The nature of decision-making**

**A significant contribution of psychology to behavioral economics**

1. **Rationality plays the central role in standard economic theory.** It is assumed that economic agents such as consumers are rational and selfish, and that their tastes do not change. Expected utility theory (EUT)\(^1\) is the foundation of the rational-agent model and is to this day the most important theory in the social sciences. EUT was not intended as a psychological model; it was a logic of choice, based on elementary axioms of rationality. But economists adopted EUT in a dual role: as the logic that prescribes how decisions should be made, but also as a description of how people make choices.

2. **In the 1970s, the psychologists Daniel Kahneman and Amos Tversky set out to understand how humans actually make risky choices, without assuming anything about their rationality.** The most significant work by Kahneman and Tversky is prospect theory (PT). It was closely modeled on EUT but departed from it in fundamental ways. Their model was purely descriptive, and its goal was to explain systematic violations of the axioms of rationality in actual decision-making. Prospect theory is therefore more complex than expected utility theory.

3. **The fundamental idea of PT is that losses loom larger than corresponding gains.** The concept of loss aversion is certainly the most significant contribution of psychology to behavioral economics. If there is a choice between a guaranteed payment of $1 and a gamble in which the probability of getting $100 is 1 in 80, according to EUT people should choose the $100-or-nothing gamble. But in experiments they don’t, at least not always. This asymmetry has an evolutionary explanation. Organisms that treat threats as more urgent than opportunities have a better chance of surviving and reproducing. The brains of humans and other animals contain a mechanism that is designated to give priority to bad news. Animals, including people, fight harder to prevent losses than to achieve gains.

4. **Humans often need help in making more accurate judgments and better decisions, and in some cases policies and institutions can provide that help.** However the school of thought known as the Chicago School of economics holds that people always act as rational agents, and it is therefore unnecessary and even immoral to protect people against their choices. Rational agents should be free, and they should be responsible for taking care of themselves.

5. **Behavioral economists such as Kahneman believe that in decision-making the rationality of individuals is limited by the information they have, the cognitive limitations of their minds, and the finite amount of time they have to make the decision.** They do not contest freedom, but they believe that a cost of freedom is borne by individuals who make bad choices, and by a society that feels obligated to help them. The decision of whether to protect individuals against their mistakes therefore presents a dilemma for behavioral economists. The economists of the Chicago School do not face that problem, because rational agents do not make mistakes. Kahneman supports a position of libertarian paternalism, in which the state and other institutions are allowed to nudge people to make decisions that serve their own long-term interests.

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\(^1\) **Expected Utility Theory:** This states that with regard to choices where the outcome is uncertain, the individual will choose the act with the highest expected utility.
In later work, Kahneman argued that the human mind is limited by our excessive confidence in what we believe we know, and our apparent inability to acknowledge the full extent of our ignorance, along with the uncertainty of the world we live in. People are prone to overestimate how much they understand about the world and to underestimate the role of chance in events.

According to Kahneman, optimistic overconfidence may well be the most significant of the cognitive biases and can be both a blessing and a risk. It can be called the engine of capitalism. Optimistic individuals play a disproportionate role in shaping our lives. Their decisions make a difference; they are the investors, the entrepreneurs, the political and military leaders – not average people. They got to where they are by seeking challenges and taking risks. The chances that a small business will survive for five years in the United States are about 35%. But individuals who open such businesses do not believe the statistics apply to them. The optimistic risk-taking of entrepreneurs surely contributes to the economic dynamism of our society, even if most risk-takers end up disappointed.

One of Kahneman’s key conclusions is that professionals are almost as susceptible to cognitive biases as non-professionals. Experts show many of the same biases as other people, but in attenuated form. Kahneman gives many examples confirming this idea, e.g. real-estate agents, or professional investors, including fund managers. The evidence from more than fifty years of research is conclusive: for a large majority of fund managers, the selection of stocks is more like “rolling dice than like playing poker”. In another study, experts commenting on political trends were not significantly better than nonspecialists in producing predictions, even in the area they knew the best. According to Kahneman, errors of predictions are inevitable because the world is unpredictable. We should not expect much from pundits making long-term forecasts although they may have valuable insights into the near future.

Kahneman considers the story of how Google turned into a giant of the technology industry. His conclusion is that learning from the Google story is largely illusory. There was a great deal of skill in the Google story, but luck played a more important role in the actual event than it does in the telling of it. According to Kahneman the CEOs’ influence on company performance is much smaller than suggested. Stories of success and failure consistently exaggerate the impact of leadership style and management practices on firm outcomes, and thus their message is rarely useful. Because luck plays a large role, the quality of leadership and management practices cannot be inferred reliably from observations of success.

Kahneman has never referred in his works to the concepts of the 18th century classical economist Adam Smith, who is considered the father of economic science. The present comparative analysis demonstrates an amazing convergence between Smith’s theory and contemporary behavioral economics. Current economics is returning to the roots of 18th century classical economics. This reversion is supplemented by modern knowledge regarding complex evolutionary systems, psychology and sociology, and is supported by the latest technical achievements of neuroeconomics allowing an insight into chemical and physical processes in the human brain.