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Press Officers, Michaelmas 2016

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THIS HOUSE FEARS THE RISE OF ARTIFICIAL INTELLIGENCE

Proposition 1: Kathryn Parsons

Kathryn Parsons, the co-founder of Decoded, a tech start-up company, began by asking the room how many people had smartphones – every person in the room raised their hand. She told the room that when she was a student at Cambridge "the Nokia phone, the most shipped phone in history, was the big thing". She noted that we "do everything on our smartphone", but "it divides us". She agreed with Stephen Hawking, who said that artificial intelligence was like fire "it could burn us to the ground". She said "50 percent of jobs today can be done by robots"; "the secretary? Meet Cortana, meet Siri". She argued that the opposition would note that these are menial jobs, but she asked "what jobs are they going to have instead…no one knows yet". "How many of us can confidently say we know the technology we use...less than one percent – doesn't that feel wrong?" Yet, she emphasized "we give these technology company everything". "We are inferior to the machines" she said "they are smarter than us".

Opposition 1: Rory Cellan-Jones

Rory Cellan-Jones, the Technology Editor of the BBC, and Cambridge alumnus, noted that "when I went to Cambridge, no one knew about computers", but we should be proud, he said, because of "Cambridge's long history in computing…we should not be so lily-livered." Cellan-Jones said that he wanted to know about artificial intelligence and "Alexa, Google and Siri all had answer". "Artificial Intelligence can do great things" he said. But, he noted, "we need to keep our sense of wonder about AI" and we need to ask". On the jobs point, he joked that "junior lawyers and accountants are toast…but we got over the spinning jenny, we can get over the digital revolution. However, he noted that Stephen Hawking had said to him "I believe that artificial intelligence could be the end of the human race", but "is Stephen Hawking the leading expert on AI, frankly no". He emphasized "we are quite a long way from computers who can more than one task at a time". "Don't be afraid, learn to love AI".

Proposition 2: Sean Ó Héigeartaigh

Sean Ó Héigeartaigh, Cambridge Academic, opened asking the room "when have ever actually been afraid?" "We are crossing the threshold where AI work is having real impact…useful robotics, not just toys". He turned the question on his head, saying "progress in itself is not a bad thing, the rate of progress could be". "Nearly every major AI researcher has their own worries" he said. He noted that "some people, who are doing research for very benign purposes, could be used by the military…others are very worried about privacy issues". Sean noted that "the real world is a place where so many things can go wrong". "I do not fear artificial intelligence; it can do a lot of good…but I do fear getting it wrong". "There are pitfalls that we need to anticipate and need to avoid". "It is going to involve a lot of planning, and will take a lot of planning, a lot of thinking." He noted that he "was like the Apollo project, it is amazing, but we need to focus on everything in the rocket that could go wrong, when it comes to AI." "We are going to be on the stage when all of this happening, it is a big responsibility, we shouldn't screw it up".

Opposition 2: Professor Murray Shanahan

Murrah Shanahan opened his speech by telling the room that last year, the first computer "beat the World Champion at the Chinese game of Go", Go is an incredibly difficult game with "too many patterns to win with pure computing power", instead the computer "mirrored computer intuition". We must remember, Shanahan pointed out, that those building Artificial Intelligence "are building tools,

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nothing more". All the important issues with AI, Shanahan noted "provoke concern, but they do not provoke fear…the word is inappropriate for the context." "The motion before us is not based on the evidence, but on media statements". He noted that ideas of "the rising of the machines…come from Hollywood…there is no reason to build AI with undesirable human qualities". However, he emphasized that "we should think about the implications about building human-level intelligence machines, but many experts argue that AI will be good". But, he also noted that "these arguments are complex, more research needs to be done." "To vote for the current motion, bears an alarmist tone that bears no relation to the AI work currently being done in labs around the world."

Proposition 3: Sir Nigel Shadbolt
Sir Nigel started by acknowledging his affiliation with Cambridge, whom he wanted to "thank for their support of AI research…but what were we researching? Weaponizing AI". He noted that "we have been creating precision delivery of munitions, intelligent ICBMs and technologies that allow us to kill with clinical precision". "AI has done a good deal of good" he said, "but there are people right now who are using that technology, coding neural pathways, to kill". Sir Nigel said instead that "we should fear AI like previous scientists feared chemistry and biology…but we are nowhere near serious about admitting this". He noted that even security agencies "that keep us safe, don't realize the scope of this technology…we need to step back and think about what that means, but we are not having this discussion." However, he agreed with the previous speaker "Hollywood is not right, these systems are instead very niche and very task oriented". But, he emphasized, "my supervisor once told me that a computer would never beat a Human champion chess player". "It's about asking whether we have the right balance between technology, oversight and our own human frailty". "The fear of I have, is quite simply…the stubborn and enduring stupidity of our political class". "There are huge challenges that are exciting…but just be fearful a little bit".

Opposition 3: Dr Ben Medlock
The final opposition speaker, Dr Ben Medlock, founder of SwiftKey noted that what both sides might disagree on "was whether to use the word fear or caution". He started by saying that "we were recently asked to work on Stephen Hawking's auditory system". He noted that "it may be obvious that I should, working in industry, emphasize the benefits of practical AI…but Rory has already done that." Instead, Dr Medlock said "I will instead point out the virtue and awesome power of biological intelligence", because "intelligence is built in context"; AI, he noted "can only complete very narrow tasks", "intelligence is really built in this contextual and multi-layered rule that characterizes biological life". "Human intelligence is not embodied in the frontal cortex, but the millions of cells working in our body…these systems have spent a very long time embodying their environment"; "2.5 billion years, that's a long time". "True intelligence needs to be embodied in the physical world over time". "I suggest we maintain a healthy perspective on both the risks and the benefits of AI, but also keep a sober respect for the wonders of nature and the challenges ahead." Thus ended a brilliant and informative debate about the rise of Artificial Intelligence.