

may be feeling, often without the use of words or formal communication. Lawrence quotes in illustration Ernest Hemingway's six-word novel: 'Baby shoes for sale, never worn'. The form of our intelligence is thus very different from the intelligence of machines, Lawrence argues.

Forms of Knowledge, Intelligence, and Poetry

While we are on the subject, an interesting aside. Debates and contrasting positions regarding intelligence and the source of knowledge are as old as philosophy itself. We have already met Jeremy Bentham and John Stuart Mill, two utilitarian philosophers but with very different approaches to such questions. Bentham's approach stressed analysis of issues and measurement. As we saw in Sect. 2.5.2, his felicific calculus attempted to capture and calculate pleasure and pain [22], but he was notorious for his lack of capacity to understand other people. In his *Essay on Bentham*, although lavishing considerable praise on Bentham, who was his godfather, Mill lamented that he had 'failed in deriving light from other minds' [23].

John Stuart Mill, although also a utilitarian and favouring empiricism, was greatly influenced by the Romantics, in particular by poetry [24]. He considered that poetry was a means of gaining direct knowledge of the mind of another person. By poetry, he did not mean necessarily the literary works of an accomplished poet, but any form of communication between individuals that enabled such insights.

Perhaps poetry captures a form of intelligence beyond the grasp of any computers we have now, or may ever have. Understanding other people is an elementary but often neglected aspect of ethics. Many ethical dilemmas would never even arise, if we only took the trouble to understand each other better.

5.3 Values Underlying the Use of Data

Summary

The value we attach to intelligence is closely related to the value attached to truth, to knowledge, and to how we understand and value data. Much AI uses large amounts of data; hence, examining the values underlying the use of data will be a useful background for questions in AI ethics, such as questions concerning privacy. We examine the link between placing a high value on knowledge and the sharing of that knowledge.

The values attached to intelligence are closely related to values regarding knowledge, for intelligence involves learning and the capacity to learn and both generates and depends upon knowledge. In the field of AI, much recent progress has been enabled by access to massive amounts of data, so the value given to machine intelligence both builds upon the values given to data and helps to cement its value. (Of course, in practice, much data can be worthless: poorly categorised,

false, incomplete.) We will touch on some more relevant points later in the section discussing epistemology and its importance for ethics. For now, an exercise, followed by some literature.

5.3.1 *One View of the Value of Big Data*

Here is one view about the value of data, taken from Victor Mayer-Schönberger and Kenneth Cukier's book *Big Data: A Revolution that Will Transform How We Live, Work, and Think* [25]. This is one view only, but it represents a certain style of approach in the field. Certain claims made in the book are outlined here.

Exercise 8

1. In the age of big data, even the most trivial pieces of information will be deemed valuable [25, p. 100].

Question: For whom is such data valuable?

2. Information is a nonrivalrous good, and one person's use of it does not detract from its use by others [25, p. 101].

Question: Is this true for all information? Even if true, what else matters? If information can be used by another, does this even detract from its value?

3. The value of data is in its use [25, p. 104].

Question: Is this true? Does this mean that the value of data is simply instrumental?

4. For pragmatic and cost reasons, it is prudent to gather as much data as possible and to use it for as many different uses as possible [25, p. 109].

Question: To whom does this 'make sense'? Note how the use of such a phrase can lead one to certain conclusions. Does anything else matter besides 'making sense'?

5. Data-driven decisions will enhance, or supersede, human decision-making [25, p. 141].

Question: When might this be a good thing? When not so good?

6. Amazon allegedly switched to algorithmic recommendations instead of book reviews as a better way of increasing sales [25, p. 141].

Question: In whose interest is this? Compare the different forms of information or knowledge contained in a human-composed book review and an algorithmic recommendation.

In considering the multiple uses of data and information and questions of value arising from this, recall our earlier discussion of technological developments in the spread of information, including the work of Walter Benjamin, in Sect. 3.6.2.

Data, prediction, and freedom The question of free will has perplexed philosophers, theologians, and more ordinary mortals for millennia. We are unlikely to 'solve' the question to the satisfaction of all here. Nonetheless, there are critical questions about how we view ourselves, how we view others, how we treat each

other, and many ethical questions, including questions of control, power, and manipulation that arise.

Exercise 9

Note Amazon's claim that data drove more sales than book reviews. Does this imply anything about the 'real' source of human motivation? Are we creatures who are caused to purchase items by the hidden algorithms of Amazon, or are we creatures who choose what books to purchase based upon our preferences, interests, and values?

Does the capacity to predict human behaviour from data have implications for our conception of ourselves as free agents?

5.3.2 *Truth and Communication*

A common driving force behind much enthusiasm for AI is the idea that the more intelligence we have, the better. Likewise, it is often assumed that the more knowledge we have, the better, and it is often assumed that if knowledge is held as a value, then it follows from this that knowledge should spread and hence be communicated. Is this true? It is crucial to note that knowledge implies a knower.

Valuing the communication of information is one motivating force behind open-access initiatives. It has a great appeal, but it comes directly into conflict with values of privacy and confidentiality. This clash arises from the meaning of information when considered from different perspectives. Information is abstract and can be conceptualised in a timeless way and stored anywhere, but communication takes place at a specific time and place. Information which is merely a point on a massive dataset to some people is information with personal, perhaps life-altering significance to others. Is the abstract idea of sharing information, of communicating truth, something to be valued in and of itself? Or do we only ever value information and truth in relation to some pragmatic use it has for us? This question is worth pondering, both for attempts to resolve practical questions in AI ethics and for the question of how we conceptualise information and knowledge. As with so many of the questions in this book, this is a pointer to complex debates in philosophy and elsewhere. Let us look at an example of the presentation of two different viewpoints on 'truth for truth's sake'.

To the Lighthouse

Virginia Woolf's 1927 novel concerns the Ramsey family, visiting the Isle of Skye in Scotland [26]. The boy James is very keen to row out to the lighthouse the following day, but a trip can only take place if safe to do so, and it is very likely that a storm is on its way. His mother, Mrs. Ramsey, tells James that of course they can go, if the weather is fine, and the boy is filled with joy. His

(continued)

father, Mr. Ramsey, and some other men present, insist that the weather will be too bad and that there is no possibility whatsoever that they could go to the Lighthouse. Mrs. Ramsey is concerned to hold out some hope in the child's mind, suggesting that the wind may well change. The novel presents two extremely different viewpoints: one of factual accuracy, which decries what it sees as irrationality, and a second which focuses on consideration for the child's feelings [26, p. 9].

Mr. Ramsey is a professional philosopher, perhaps no coincidence. Mr. and Mrs. Ramsey personify two opposing attitudes to the truth but crucially also to communication.

Exercise 10 Try to articulate the best possible justification for the positions of each of Mr. and Mrs. Ramsey.

Mrs. Ramsey is portrayed by Woolf as considering that Mr. Ramsey's insistence on the truth is wantonly disregarding the ways in which civilisation is held together.

How does such a view contrast with the view that 'everything that civilisation has to offer is a product of human intelligence'?

How could it be possible that there are two such opposing views?

5.4 Human Nature

Summary

An understanding of human nature underlies many ethical questions, especially in AI ethics, where we frequently need to compare and contrast humans with intelligent machines. Understanding some of the central issues and points of variance in accounts of human nature can also facilitate our understanding of the viewpoints of others. We examine different views on the place of humans within the wider universe, including its trajectory over time; claims about the status of humans within the natural world; questions about the relationship between human beings and our embodiment; the issue of whether there is an essence to human nature, and if so, what this is; the uniqueness of humans, or otherwise; divisions within the self and the 'higher self'; the boundaries and limits of human nature; the perfectibility or otherwise of human beings; the social nature of humans; and the significance of myth and origin stories of human beings. These issues are illustrated in relation to questions in AI ethics.