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Delegating and Distributing Morality

# **Delegating and Distributing Morality: Can We Inscribe Privacy Protection in a Machine?**

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## **Abstract**

This paper addresses the question of delegation of morality to a machine, through a consideration of whether or not nonhumans can be considered to be moral. The aspect of morality under consideration here is protection of privacy. The topic is introduced through two cases where there was a failure in sharing and retaining personal data protected by UK data protection law, with tragic consequences. In some sense this can be regarded as a failure in the process of delegating morality to a computer database. In the UK, the issues that these cases raise have resulted in legislation designed to protect children which allows for the creation of a huge database for children. Paradoxically, we have the situation where we failed to use digital data in enforcing the law to protect children, yet we may now rely heavily on digital technologies to care for children. I draw on the work of Floridi, Sanders, Collins, Kusch, Latour and Akrich, a spectrum of work stretching from philosophy to soci-

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ology of technology and the “seamless web” or “actor-network” approach to studies of technology. Intentionality is considered, but not deemed necessary for meaningful moral behaviour. Floridi’s and Sanders’ concept of “distributed morality” accords with the network of agency characterized by actor-network approaches. The paper concludes that enfranchizing nonhumans, in the shape of computer databases of personal data, as moral agents is not necessarily problematic but a balance of delegation of morality must be made between human and nonhuman actors.

### **Keywords**

Privacy, delegation, artificial agents, intentionality, distributed morality, actor-network theory, data protection law

## **INTRODUCTION**

Can morality, and in particular, privacy, be delegated to a machine or must it remain a purely human attribute? If we decide that we can delegate it to a machine, can we distribute aspects of morality through the network of machine and human in a balanced way?

In particular, I look at an example of delegation of morality where privacy is the central moral concern; the question of delegating morality to a database and how this continues to be achieved, successfully or otherwise, through the application of data protection law. This is considered in a past tragic case (Soham murders). One way of analysing key aspects of the case involves invoking a failure in the delegation of morality to a machine, where an appropriate approach to privacy was not achieved. However I suggest that some responses to this case (and the similarly tragic Climbié case), in terms of calls for the construction of a national database for children in the UK, can be read in terms of further attempts to delegate morality to a machine, despite the failures signalled by these tragic cases. I argue that we need to think carefully about the conditions where we would want to perform such a delegation and their implications. This is clearly complex and the examples to which I allude, suggest that we do not entirely understand the implications of the delegations we currently perform. The paper opens with a description of the Soham and Climbié cases, set against a consid-

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eration of UK data protection legislation, and the responses of the UK government in terms of its legislation to construct a national database for children. The concerns that prompt the calls for such a database are echoed in popular responses to protect children using microchip tracking devices. This is followed by a consideration of how moral agency, particularly concerning privacy could be part of a database, as opposed to treating the design and implementation of such a database in a purely instrumental way. This opens up a consideration of how delegations of morality might be treated theoretically. In formulating an analysis of such delegations three approaches are relevant; those of Floridi and Sanders, Collins and Kusch, Akrich and Latour<sup>1</sup>. The question of intentionality, which has beset philosophical critiques of artificial intelligence when delegation of intelligence is considered, is discussed but not found to be relevant. Instead, the concept of distributed morality, articulated by Floridi and Sanders but lent support from Akrich and Latour appears to be an appropriate approach for analysing the moral role of information and communications technologies.

## THE UK DATA PROTECTION ACT- SOHAM AND CLIMBIE CASES

The Data Protection Act (DPA) became law in the UK in 1984 and was subsequently superseded by the 1998 Data Protection Act which broadened the scope of the original act from just digital media to include data held by any means of storage including paper. That it was revised relatively quickly from its original form is an indication of how quickly our ethical and legal judgments must move in response to the use of computer technologies and how much our understanding of key concepts such

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<sup>1</sup> L. Floridi and J.W. Sanders. On the Morality of Artificial Agents. *Minds and Machines*, 14(3): 349—379, 2004. H.M. Collins and M. Kusch. *The Shape of Actions: What Machines and Humans Can Do*. MIT Press, Cambridge, MA and London, 1998. M. Akrich. The De-Description of Technical Objects. In W.E. Bijker and J. Law, editors, *Shaping Technology/Building Society: Studies in Sociotechnical Change*, pages 205—224, MIT Press, Cambridge, MA and London, 1997. B. Latour. Where are the Missing Masses? The Sociology of a Few Mundane Artifacts. In W.E. Bijker and J. Law, editors, *Shaping Technology/Building Society: Studies in Sociotechnical Change*, pages 225-258, MIT Press, Cambridge, MA and London, 1997.

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as privacy are shaped by our use of new technologies. The DPA's application to personal data and its subsequent amendment to apply to non-computerized data serves to underline the way that new technologies, with their moral implications, quickly become entwined in our social existence.

The UK DPA applies to personal data and this recognizes that individual data privacy is important and must be protected and that individuals have a right to know what data is held on them, with the concomitant right to have the data changed if it is in error. Importantly, personal data should not be held longer than is necessary.

Two tragic, high profile cases which have arisen in the UK in the last five years illustrate what can go wrong and where our moral intuition that the need to protect children is paramount is not reflected in the application of data protection law in protecting personal data. The common features of these cases relate to the way that they involve vulnerable members of society, in this case young children, whose need for protection and just treatment is uncontroversial. Secondly, both cases involve a failure to share personal data, about certain of the individuals involved, with other appropriate agents who might have ensured their protection, signalling, to a greater or lesser extent a failure to understand and apply data protection law appropriately.

Although, in general, personal data about individuals must not be shared with other organizations, there are exemptions for potential criminal activity, terrorism and the protection of vulnerable people. This is an important extension of the concept of privacy, one that is intended to be captured by data protection legislation, but which was not implemented appropriately in these cases. A major part of the concept of privacy involves informational privacy or the right to have information about oneself remain confidential<sup>2</sup>. Much, but not all, of the scope of data protection involves the protection of informational privacy. However, it is clear that there will be times when protecting the informational privacy of one individual might lead to a violation of decisional privacy i.e. the freedom to make and act upon one's own decisions without interference, or even physical privacy or freedom

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<sup>2</sup> A.L. Allen. Privacy. In A. M. Jaggar and I. M. Young, editors, *A Companion to Feminist Philosophy*, pages 456—465. Blackwell, Malden, MA and Oxford, 1998.

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of unwanted physical observation or bodily contact or invasion The UK DPA allows for normal informational privacy of an individual to be abrogated if a crime may be committed. In these cases, the crime involved was the worst example of violation of physical privacy, namely murder.

Victoria Climbié was sent by her parents in Nigeria to live with an aunt in the UK, in the hope of securing a better life for her. She lived a life of unspeakable cruelty at the hands of her aunt and died in 2000 at the age of eight. Although she was known to the social services and several other authorities, at least part of the reason for this tragic outcome, was the failure to share personal data about her amongst the various authorities.

In August 2002, two ten-year old girls were murdered in the village of Soham in Humberside in North East England. Their murderer was Ian Huntley, the caretaker at the girls' school and therefore, to them, a trusted adult. When the case was brought to trial it transpired that he had been subject to a series of charges of rape, indecent assault and underage sex between 1995 and 1999. When he was employed by Soham College, the mandatory pre-employment checks were made but the details of these past complaints were not uncovered, hence he was employed by the school. In the belief that the DPA obliged them to delete the files, Humberside Police had erased them<sup>3</sup>.

Without simplifying the complexities of these two tragic cases, there are important similarities. Their overall similarity involves a failure of appropriate organizations to retain and/or share personal data in circumstances where the normal expectation of privacy of personal data should be set aside because potential harm to vulnerable people was involved. The DPA clearly allows protection of data to be overridden where a crime might be involved. In the Climbié case up to 14 different authorities, including hospitals and social services, were involved before her death. Lack of data sharing was a clear issue here. In the Soham case it appears that lack of appropriate data retention was a serious issue.

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<sup>3</sup> S. Room. Meeting the Challenges of the Victoria Climbié & Soham Cases, <http://www.dpalaw.info> available online, accessed 23<sup>rd</sup> March, 2005, 2004.

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Without wishing in any way to trivialize the tragedy of these cases, both involve, in some senses a delegation to a nonhuman i.e. to a database. The database does not work on its own – the whole moral network of database plus police and/or social workers, education and health officials, those who could have kept the data, passed it on, interrogated it and shared it, failed to work. So it is not enough to delegate aspects of morality to a database, the morality of the network must be distributed through human and nonhuman agents (the database). The different ways in which such a delegation and distribution of morality may be theorized is the subject of the theoretical part of the paper below.

This also serves to demonstrate that not all delegations of morality to nonhumans are equal. Some are much more direct and the moral action they demand back of humans is clear. Modern cars “demand” that you apply your seatbelt before driving off through lights and alarms. They have one moral imperative: “Buckle up!” although there are other secondary moral imperatives such as “obey the law and be aware of your own safety and that of others”, which one is addressing through the activity of fastening the seatbelt. However a database does have the singular moral immediacy of a seat belt. The potential of functioning of a database is clearly much more complex.

On one hand there might be a temptation to treat a database in a purely instrumental way, as a repository of data. However the examples above show that there will be circumstances where an instrumental approach to data in a database will not suffice. From the swift development of subject areas such as data mining, the notion that there are latent associations and relationships, and even new knowledge which can be mined out of a database suggests that, by analogy, we may be able to mine the moral relationships which are latent in a database.

We can see how morality can be distributed throughout a network of humans and nonhuman in some of the measures which were introduced, in UK legislation, in the wake of Victoria Climbié’s tragic death, culminating in the Children’s Bill which was passed by the British parliament in March, 2004. One of the bill’s most revolutionary aspects is the provision for the creation of a national database for children (under the age of 18) and the appropriate provision for tracking, referral and data sharing. Of the 11 million or so children of that age group in the UK, 50-100 children per

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annum die of abuse or neglect. To some extent this move suggests that we are devolving aspects of childcare to the database but there is a clear understanding that a wraparound of referral, data sharing and tracking is required. In other words we apparently recognize the need for distributing morality through the network of humans and non-humans. The question then remains as to how much moral work we require of our nonhumans, i.e. the database and computers, and, like the much more obvious seat belt, how much moral work they require of us.

### A DATABASE FOR CHILDREN

A number of implications run from the implementation of a children's database. First of all, we must consider the split between public and private worlds and how to handle the ethical dilemmas that often follow from this split. This raises one of the fundamental disjunctions of liberal politics, namely the split between the public sphere of work and government and the private sphere of home and family<sup>4</sup>. Bringing up children is often seen as a private matter where the state is reluctant to step in. But the recognition that abuse and/or neglect often occurs in the private sphere of the home gives the state the right to interfere. In contemporary life, children are no longer seen as the property of their parents or carers and so the instruments of state and law enforcement must be brought to bear if a child's welfare is endangered..

In terms of how the duty to protect privacy is distributed, we need to debate the structure of delegating morality to technology. In times of moral uncertainty, following in the wake of the terrible tragedies such as the cases I describe, we are tempted to delegate too much to technological devices. For instance, a high profile UK robotocist made the serious suggestion, in the wake of the Soham murders, that children could be implanted with microchips so that they might be tracked if abducted and some parents have clearly considered this as a serious possibility<sup>5</sup>. Recognizing that such ac-

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<sup>4</sup> A. Adam, *Gender, Ethics and Information Technology*. Palgrave Macmillan, Houndmills, Basingstoke, 2005.

<sup>5</sup> G. Kewney. No, Mrs Duval, You CANNOT Track a Mobile Human by Wireless Like a Car! <http://www.newswireless.net/index.cfm/article/548>, available online, accessed 23<sup>rd</sup> March, 2005, 2002.



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tions are often prompted by fear rather than an attempt to sidestep parenting duties, nevertheless delegating so much of the moral duty of care to a subcutaneous microchip, even if it worked, does not absolve us of the responsibility for looking after our children and others' children and the need to teach our children to look after themselves.

Furthermore, in a children's database it is vital that data is accurate. In the UK there have been some high profile cases of carers being wrongly accused of murder or abuse. Wrong accusations can be devastating for a family. The blunt instrument of a gigantic database cannot ensure that data is accurate, nor that it will be interpreted in a fair and reasonable way. Such a database cannot get round some of the issues that have dogged tragic cases where authorities have not acted to save the child involved, where lack of resources, inadequate training and overstretched staff may outweigh the positive benefits of a database. Finally, it is difficult to see how the Soham tragedy might have been averted by such a database as information retention of data on those who might harm children, rather than on the children themselves, was required here. At the same time we must ensure the accuracy of such data and that it is shared with appropriate authorities.

### DELEGATION TO MACHINES – WHAT CAN BE DELEGATED AND HOW?

The Soham and Climbie cases and the above consideration of the ways in which we cannot take a purely instrumental view of databases demonstrate that a theoretical framework for the twin aspects of delegation and distribution of morality must be developed, particularly with respect to the key moral concept of privacy.

Considering delegation first, there is a strong sense in which delegation to a machine is prosaic. Indeed the history of technology is strewn with our attempts to delegate to machines activities which they can perform better or quicker than we do. A sewing machine sews faster and more accurately than I do; a bicycle will take me to work more quickly than my feet can. Some sorts of delegation, therefore, seem uncontroversial, or at least, uncontroversial in the present day. Even so, we must recall that a delegation which now seems uncontroversial may have been viewed as problematic in the past. Most obviously, history offers many examples of concerns over the introduction of ma-

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chinery into the workplace which was negatively regarded as reducing the need for skilled labour, for example as in cloth production in the industrial revolution and in office automation the 1970s and 1980s. It is the art of making these apparently prosaic delegations “strange”, and opening the black boxes of technologies for inspection<sup>6</sup> that historians, sociologists and philosophers have attended to over the last thirty or more years.

Without going into these complex historical examples in any detail, they nevertheless demonstrate that, while we may be able to delegate certain things previously done by people, to machines, we may not always want to, or, at least, we may want to consider the conditions under which we would wish to make such delegations. Alongside hopes for technologies to make life easier and less tedious there are always fears that technologies will have a negative impact. In historical examples, it may be fears about machines taking away the need for human labour whilst in modern times such fears may be expressed in terms of machines taking away aspects of humanity or lessening “moral capital”. We could, for example, regard the database for children as lessening the moral capital amongst humans i.e. parents, carers, health and social services officials whilst increasing the moral capacity of the database which has the requirement to protect privacy delegated to it. This may help to explain the apparent paradox that we are sometimes willing to place enormous trust in the moral capacity of a machine as in the example of embedding microchips in children.

In any case, are there limits on the sorts of activities that we may delegate to a machine, and if there are limits how might these apply to delegation of morality and, in particular, privacy? The sociologist of science, Collins<sup>7</sup> thinks that there are limits to delegation. Although he says little about delegation of morality, as such, it is nevertheless useful to understand his approach partly because it provides a detailed analysis of the kinds of activities which may or may not be open to delegation, partly because he does consider delegation of morality, albeit briefly, and also because

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<sup>6</sup> L. Winner. Upon Opening the Black Box and Finding it Empty: Social Constructivism and the Philosophy of Technology. *Science, Technology & Human Values*, 18(3): 362—378, 1993.

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his work provides a useful bridge between potentially disparate positions exemplified in Floridi and Saunders and the actor-network approach<sup>8</sup>. His position has been developed through research on the complexities of replication in scientific experiment<sup>9</sup>, which he later developed into an analysis of what counts as replication of action more generally, through an analysis of what computers can and cannot do<sup>10</sup> and a more formal description of the kinds of human activity that can be delegated to machines<sup>11</sup>.

In terms of how far humans can delegate acts to machines, he claims:

“We cannot delegate *acts*, we can only delegate the behavioral coordinates of the act and we can delegate these successfully just to the extent that part of the act is sufficiently stylised to be reducible to one behavior and describable without loss to a formula.”<sup>12</sup>

In particular, it is *mimeomorphic* action which may be delegated to machine, where mimeomorphic actions are to be understood as “...actions where exact reproduction of the *behavior* by someone who *did not understand the action* would always appear to reproduce the *action* to someone who *did understand the action*.”<sup>13</sup> By contrast, *polimorphic* actions are characterized by varying behaviours in carrying out an action in a given situation e.g. writing a love letter. Polimorphic actions require the agent to have cultural knowledge to understand what counts as appropriate action in a given circumstance. Indeed one needs a great deal of cultural knowledge to know what counts as ‘the same’ given the variability of polimorphic action involved in carrying out a particular act. Such actions may not be successfully delegated to a machine.

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<sup>7</sup> H.M. Collins. *Artificial Experts: Social Knowledge and Intelligent Machines*, MIT Press, Cambridge, MA, 1990.

<sup>8</sup> L. Floridi and J.W. Sanders. On the Morality of Artificial Agents. M. Akrich. *The De-Description of Technical Objects*. B. Latour. *Where are the Missing Masses? The Sociology of a Few Mundane Artifacts*.

<sup>9</sup> H.M. Collins. *Changing Order: Replication and Induction in Scientific Practice*. Sage, London, Beverly Hills and New Dehli, 1985.

<sup>10</sup> H.M. Collins. *Artificial Experts: Social Knowledge and Intelligent Machines*,

<sup>11</sup> H.M. Collins and M. Kusch. *The Shape of Actions: What Machines and Humans Can Do*

<sup>12</sup> H.M. Collins. *Artificial Experts: Social Knowledge and Intelligent Machines*, 71.

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It is clear that delegation does not just mean delegation of “physical” actions as in the example of riding a bicycle. We have delegated arithmetic operations to machines for years; the subject of artificial intelligence, involves, to some extent, delegation parts of our thinking to machines. *Prima facie*, there seems no reason why delegating morality to a machine is inconceivable, although, under this view we would not be delegating the moral act, just the behavioural coordinates of the moral act e.g. checking a child’s welfare, ensuring that they attend school and so on.

Collins and Kusch<sup>14</sup> do not regard the delegation of morality as an issue. Indeed they contend that delegation and moral responsibility are orthogonal. So, under this view, delegating the protection of privacy to a database for children does not mean that we are asking the database to assume moral responsibility. Delegating the behavioural parameters of a moral act is not the same thing as moral responsibility, yet it does appear to be something more than treating the database in a purely instrumental, data storage way. Thinking of delegation to human actors for the moment, activities can be cascaded down a chain of action, including polymorphic activities, and actors at the bottom of the cascade do not necessarily need to understand the whole of the action to which they contribute e.g. as in times of war when a set of orders might be given without full information of the context, so long as the actors at the bottom of the cascade share a “form of life”, in other words sufficient shared cultural understanding, with those at the top of the cascade. Given that Collins and Kusch<sup>15</sup> argue that only mimeomorphic action can be delegated to machines it seems unlikely that they would argue that morality can be delegated to a machine, certainly in the sense of machines potentially having moral responsibility and this is confirmed by the preceding ‘orthogonality’ argument.

In a similar vein, Floridi and Sanders<sup>16</sup> do not regard the *attribution* of moral responsibility to artificial agents (machines, software, organizations) as an appropriate approach. However they do argue that artificial agents can engage in moral action and that our failure to fully explore this to

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<sup>13</sup> H.M. Collins and M. Kusch. *The Shape of Actions: What Machines and Humans Can Do*, 21-22.

<sup>14</sup> H.M. Collins and M. Kusch. *The Shape of Actions: What Machines and Humans Can Do*, 62.

<sup>15</sup> H.M. Collins and M. Kusch. *The Shape of Actions: What Machines and Humans Can Do*.

<sup>16</sup> L. Floridi and J.W. Sanders. On the Morality of Artificial Agents.

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date results from the constraints of overly anthropomorphic views of agenthood, especially in terms of intentionality, which have hitherto prevailed.

## INTENTIONALITY AND DELEGATION

Such considerations raise the spectre of intentionality. Does morality require intentionality and therefore does intentionality have to be present in order to delegate morality, in other words must we limit morality to (intentional) humans? Floridi and Sanders<sup>17</sup> think not. Now, he does not explicitly state this, but Collins does not appear very concerned with intentionality either. For instance, he does not regard arguments such as those of Searle<sup>18</sup> on the Chinese Room, on preserving the specialness of the human condition through the human only capacity for intentional behaviour, as especially relevant. Indeed he regards the puzzle that is to be explained by critiques of AI is the remarkable way in which we successfully manage to accommodate machines into our culture – they are accepted as social prostheses rather than as brain prostheses. For Dennett<sup>19</sup>, who, unlike Collins, does consider intentionality directly, if it walks like a duck and quacks like a duck then it's a duck, or at least we can treat it as if it is a duck. In other words if an artificial agent can be treated as if it has intentionality then we should not worry about what is inside. We do not have to worry about the specialness of the human condition and its unique capacity for intentionality a la Searle; “as if” intentionality will do fine.

Arguments on intentionality, such as those above, have been used with regard to replicating human intelligence in AI but Floridi and Sanders want to argue, as indeed others do<sup>20</sup>, that the question of intentionality applies to ethics as much as epistemology. They appear to be in tune with Dennett's approach to intentionality in that intentionality is not deemed necessary for the requirements of

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<sup>17</sup> L. Floridi and J.W. Sanders. On the Morality of Artificial Agents.

<sup>18</sup> J. R. Searle. Minds, Brains and Programs. In R. Born, editor, *Artificial Intelligence: The Case Against*, pages 18–40, Croom Helm, London and Sydney, 1987.

<sup>19</sup> D.C. Dennett. The Myth of Original Intentionality. In E. Dietrich, editor, *Thinking Computers and Virtual Persons: Essays on the Intentionality of Machines*, pages 91–107, Academic Press, San Diego, CA and London, 1994.

<sup>20</sup> J. Gips. Towards the Ethical Robot. In K.M. Ford, C. Glymour and P.J. Hayes, editors, *Android Epistemology*, pages 243–252, MIT Press, Cambridge, MA and London, 1995.

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interaction, autonomy and adaption which are necessary for something to qualify as an agent. Indeed they argue that the notion of intentionality presupposes privileged access to an agent's mental state and therefore is overly psychological and individualistic in emphasis. Additionally, a satisfactory investigation of distributed morality, which will be important in what follows, is difficult to achieve when the focus is on the apparently individual psychology of intentionality. Therefore, Floridi and Sanders would seem to be in tune with Collins and Dennett in broadening the conception away from what may or may not go on inside the head. This allows for a more cultural approach to morality in terms of distributed morality.

## DISTRIBUTED MORALITY

The concept of delegation of morality leads to a consideration of distributed morality as it allows us to attribute good or evil collectively, even globally (think of ecological concerns) without limiting discussion to individual agents. Apart from getting away from individual psychology, and the potential solipsism of intentionality, this allows a more systemic approach towards morality which can attach to artificial agents and mixtures of artificial and human agents (as in the combination of organizations and, for instance, humans and databases).

In particular, Floridi and Sanders<sup>21</sup> emphasize the way in which artificial agents can perform morally relevant activity independently of their human creators. One thinks of Frankenstein's monster as the ultimate (if rather unfortunate) example. Artificial agents can be sources of good or evil, and can potentially be re-engineered to be good but it makes no sense to try to attribute moral responsibility to them. Essentially, their approach enlarges the class of moral agents to include those that are artificial; as I discuss below, this is definitely in tune with the 'seamless web' approaches, which address assemblages of human and non-human actors.

Collins's approach is somewhat different from the "seamless web" approach of actor-network theory. There was something of a split in social constructivist approaches to the study of technology

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<sup>21</sup> L. Floridi and J.W. Sanders. On the Morality of Artificial Agents.

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in the early 1990s with Collins<sup>22</sup> retaining the human at the centre of purposeful activity, whilst seamless web approaches argued for the decentring of the human where humans and things (including machines) are to be seen as networked together and where action arises from the network. Without rehearsing the complexities of this debate, for the purposes of the present paper we should note that delegation is tackled somewhat differently under the seamless web approach. Where Collins regards delegation of morality as tangential to delegation of activity, authors working under the banner of actor-network theory, the classic seamless web approach, where the separation of human and non-human is not contentious, do not have difficulty in envisaging the delegation of morality to a machine or non-human actor.

For instance, Latour<sup>23</sup> describes a number of delegations which clearly involve a delegation and distribution of morality through networks of humans and non-humans. Car seat belts are a delegation of safety, and perhaps morality, in their insistence, through flashing lights, alarms and even disembodied voices, that we buckle up before we drive off so that we attend to our own safety, and that of others, through the restraining actions we delegate to seat belts. Hence they make us obey the law and attend to safety, ours and others; in a minimal way they make us good citizens whether we like it or not. Latour<sup>24</sup> asks where the morality is in this assembly of driver and car.

“Where is the morality? In me, a human driver, dominated by the mindless power of an artifact? Or in the artifact forcing me, a mindless human, to obey the law...impossible to drive without wearing the belt.. I, plus the car, plus the dozens of patented engineers, plus the police are making me be moral.”

Latour invokes the analogy of the “missing mass” that cosmologists look for in explaining the workings of the universe. Sociologists also seek their “missing mass”.

“They are constantly looking, somewhat desperately, for social links sturdy enough to tie all of us together or for moral laws that would be inflexible enough to make us behave

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<sup>22</sup> H.M. Collins, and S. Yearley. Epistemological Chicken. In A. Pickering, editor, *Science as Practice and Culture*, pages 301—326, University of Chicago Press, Chicago and London, 1992.

<sup>23</sup> B. Latour. Where are the Missing Masses? *The Sociology of a Few Mundane Artifacts*.

<sup>24</sup> B. Latour. Where are the Missing Masses? *The Sociology of a Few Mundane Artifacts*, 225-226.

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properly. When adding up social ties, all does not balance, Soft humans and weak moralities are all sociologists can get... Something is missing, something that should be strongly social and highly moral... To balance our accounts of society, we simply have to turn our exclusive attention away from humans and look also at nonhumans. Here they are, the hidden and despised social masses who make up our morality. They knock at the door of sociology, requesting a place in the accounts of society as stubbornly as the human masses did in the nineteenth century.”<sup>25</sup>

Latour is arguing, not just that we can treat nonhuman actors as sources of morality, but that the morality is completely delegated all the way through our networks of human and non human actors so that morality is strongly distributed through these assemblages. The seat belt is but one examples. Latour’s notorious automatic door closer which “goes on strike” at La Halle aux Cuirs is another, which permits him to muse on the delegation to door hinges “the work of reversibly solving the wall-hole dilemma.”<sup>26</sup>

Lest we should imagine that the delegation of actions and even morality is a one way process Latour notes that we could have delegated door closing to all the people who enter and leaving the building, or to a paid porter (as in one of the more expensive department stores), who is unlikely to be paid well enough to attend properly to a boring, underpaid job. We may try to discipline unruly humans by making them close the door or we substitute for human frailty a delegated nonhuman character, an automatic door closer or, as the French call it a “groom.”

The “wall-hole’ dilemma” is not quite solved as we may have put a lot of human door closers out of work. Although this example is somewhat whimsical this point does echo perennial concerns about technology putting people out of work. Additionally the nonhuman groom prescribes back certain skills on the human user. A highly sprung door closer slams the door impolitely so humans must be skilled at getting through without injury, so there is always a trade-off between skills of a

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<sup>25</sup> B. Latour. *Where are the Missing Masses? The Sociology of a Few Mundane Artifacts*, 227.

<sup>26</sup> B. Latour. *Where are the Missing Masses? The Sociology of a Few Mundane Artifacts*, 229.



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human and nonhuman. Behaviour is prescribed back onto the human by the nonhuman. In appropriate circumstances, nonhumans make us behave properly.

“Prescription is the moral and ethical dimension of mechanisms. In spite of the constant weeping of moralists, no human is as relentlessly moral as a machine. We have been able to delegate to nonhumans not only force as we have known it for centuries but also values, duties and ethics. It is because of this morality that we, humans, behave so ethically, no matter how weak and wicked we feel we are. The hydraulic groom or door closer illustrates this well. It shows in its humble way how three rows of delegated nonhuman actants (Hinges, springs and hydraulic pistons) replace, 90 percent of the time, either an undisciplined bell-boy who is never there when needed or, for the general public, the program instructions that have to do with remembering-to-close-the-door-when-it-is-cold.”<sup>27</sup>

Similarly, Akrich<sup>28</sup> describes the way in which technological objects define actants and the relationships between actants which is partly a function of decisions made by designers. Designers make decisions about what should be delegated to whom or what and this produces “a specific geography of responsibilities.”<sup>29</sup> Akrich also argues that moral judgments are made in this process. Designers ‘inscribe’ a view of the world in the technical content of new artefacts. As she notes, the adjustment between the user imagined by the designer and the real user sometimes results in unexpected things. This is an important point for the present study. Actors can be enrolled. For instance, on the Ivory Coast, where, pre-electrification, only a minority of workers paid income tax, as an electricity network was introduced, the electricity bill became the means of collecting local taxes.<sup>30</sup> The electricity network was, therefore, making its subscribers into good citizens by making them pay their taxes.

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<sup>27</sup> B. Latour. *Where are the Missing Masses? The Sociology of a Few Mundane Artifacts*, 234.

<sup>28</sup> M. Akrich. *The De-Description of Technical Objects*.

<sup>29</sup> M. Akrich. *The De-Description of Technical Objects*, 207.

<sup>30</sup> M. Akrich. *The De-Description of Technical Objects*, 216.

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More explicitly than Latour, Akrich<sup>31</sup> argues that devices installed by designers can control moral behaviour of users. “..devices may measure behavior, place it in a hierarchy, control it, express the fact of submission, and distribute causal stories and sanctions.”

## SUMMARIZING DELEGATION OF MORALITY

In the preceding sections I discuss three broadly different approaches to delegation of action, and within that, delegation of morality, to nonhuman agents. As philosophers, Floridi and Saunders<sup>32</sup> believe it is eminently possible to imbue an artificial agent with morality so it may perform morally relevant actions independently of its human creator. They introduce an important concept for the present study, that of “distributed morality”, which captures the idea that moral activity does not just attach to humans or artificial agents as individuals, rather it may be distributed through societies, organizations and networks of artificial and human agents.

As a sociologist of science and technology, Collins working with philosopher, Kusch<sup>33</sup> is concerned with detailed actions that can be delegated or cascaded down from one group of actors to another without loss of meaning. Collins and Kusch are not specifically concerned with morality, regarding it as somewhat tangential to their detailed research on polymorphic and mimeomorphic actions. Akrich and Latour, as sociologists of technology from the seamless web approach regard morality as thoroughly delegable. Morality is inscribed in Latour’s<sup>34</sup> seatbelts and door closers and in Akrich’s<sup>35</sup> electricity networks, electricity meters and photovoltaic cells. Human and nonhuman actors are held in a web of moral relationship. Under such a model, we could consider aspects of privacy as inscribed in the database for children.

However there are some fundamental differences in approach to be found amongst these authors. For instance, Collins wants to keep the human at the centre of the network<sup>36</sup> whilst Latour<sup>37</sup>, in par-

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<sup>31</sup> M. Akrich. *The De-Description of Technical Objects*, 216.

<sup>32</sup> L. Floridi and J.W. Sanders. *On the Morality of Artificial Agents*.

<sup>33</sup> H.M. Collins and M. Kusch. *The Shape of Actions: What Machines and Humans Can Do*.

<sup>34</sup> B. Latour. *Where are the Missing Masses? The Sociology of a Few Mundane Artifacts*,

<sup>35</sup> M. Akrich. *The De-Description of Technical Objects*.

<sup>36</sup> H.M. Collins, and S. Yearley. *Epistemological Chicken*

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ticular, argues to decentre the human in order that humans and nonhumans can be treated alike for sociological description. Nevertheless there is a, perhaps, surprising degree of useful commonality between their approaches which can be distilled into the present discussion.

First of all, as noted above, none of these authors appears to regard intentionality as an issue, Dennett's<sup>38</sup> arguments on "as if" intentionality dovetail in here nicely, and this permits us to move away from anthropomorphic views of moral action allowing us to include nonhuman actors or artificial agents, in the shape of machines, databases or whatever into our purview of meaningful moral action. Secondly, "distributed morality" comes to the fore as a highly useful concept permitting synergies between the work of Floridi and Sanders and Latour and Akrich (admittedly Collins does not consider this issue). The interesting point is that authors coming from different directions arrive at philosophically similar frameworks, although they develop their approaches differently. Combining these approaches, I argue that the concept of distributed morality offers fruitful ways of thinking about the ways in which morality is spread through networks of human and nonhuman actors (machines, databases etc), how we delegate morality to nonhuman actors and how they delegate morality back to us.

How may these considerations be applied to the current case study? In this example I am considering the delegation of morality, and, in particular, privacy, as embodied in a particular set of legislation, namely, the UK Data Protection Act, to a database. The morality is distributed through the network of the people who protect personal data from being wrongly accessed, the people who must judge when to make personal data available and the database which, through its holding of personal data records, has morality delegated to it and inscribed in it. The database can exert controls over people through the actions of those who may or may not retrieve personal data. Personal data may be withheld, reflecting the broad principle that personal data is private to the individual concerned and should not be revealed. However, sometimes personal data should be revealed, as in the cases described above, when a life is at risk if the normal expectation of privacy is not overruled.

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<sup>37</sup> B. Latour. Where are the Missing Masses? The Sociology of a Few Mundane Artifacts,

<sup>38</sup> D.C. Dennett. The Myth of Original Intentionality.

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A specific, and potentially important difference between Floridi and Saunders<sup>39</sup> and Latour<sup>40</sup> emerges here. Floridi and Sanders require their agents to have quite a high level of agency to qualify as artificial agents, in terms of interaction, autonomy and adaption. Understandably, they may have difficulty accepting a database of personal data as qualifying for the attribution of artificial agency. However if we adopt the seamless web approach, exemplified by Latour and Akrich<sup>41</sup>, we do not have to have to attribute high levels of autonomy to artificial agents as morality is distributed throughout the network. Additionally, the idea of inscription is useful. The designer of a technology inscribes morality into its design whether it involves paying electricity bills, fastening seatbelts or handling personal data in such a way that privacy is protected appropriately. Meaningful moral activity may be achieved, therefore, without a high degree of agency.

## CONCLUSION

If one child's life is saved through the development of the children's database it might seem completely inappropriate to criticize the concept. However I am arguing that part of the problem is our failure to delegate attention to privacy in such a way that protecting privacy is distributed in an appropriately balanced way throughout our network of humans and nonhumans. We need the non-humans. We have database and other information and communications technologies that we can use to increase our moral well being. However we cannot delegate all our moral duties to them as we may be tempted to do when we are made fearful for the well-being of our children. We have to balance the distribution of morality through the network of humans and nonhumans. As Latour<sup>42</sup> demonstrates with his automatic door-closer, we have to learn to accommodate the properties of the door-closer. If we approach the door too slowly, and the door closer is brisk, we end up with a bloody nose. If the door-closer is too slow, we end up with a chilly room. Similarly, we must learn

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<sup>39</sup> L. Floridi and J.W. Sanders. On the Morality of Artificial Agents.

<sup>40</sup> B. Latour. Where are the Missing Masses? The Sociology of a Few Mundane Artifacts,

<sup>41</sup> B. Latour. Where are the Missing Masses? The Sociology of a Few Mundane Artifacts, M. Akrich. The Description of Technical Objects.

<sup>42</sup> B. Latour. Where are the Missing Masses? The Sociology of a Few Mundane Artifacts,

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to accommodate the moral properties of a database. Although we have inscribed various aspects of the protection of privacy to databases, they prescribe back to us various activities. These include keeping data on offenders, when the offence involves abuse of children or adults, sharing such data across different local authorities and police forces when an offender applies for a job involving children, keeping an appropriately balanced check on child welfare through the database for children and so on.

In this paper I have considered the question of delegation of morality to machines, with the aim of opening up debate as to how we should view the delegation of morality to databases where the database contains personal data protected by data protection law. The arguments of Floridi and Sanders<sup>43</sup> suggest that artificial agents can perform independent, morally relevant action. As a sociologist of science and technology and philosopher, respectively, Collins and Kusch<sup>44</sup> demonstrate that certain actions can be cascaded down a chain as long as the actors, including artificial actors, share a “form of life”. Although they do not see their arguments as especially relevant to moral responsibility, their views coupled with those of Floridi and Saunders, Latour and Akrich<sup>45</sup> from the “seamless web” approach strongly suggest that intentionality is not an issue in regard to delegation of morality. Indeed it appears to be an overly psychological and anthropomorphic concept which presupposes privileged access to an agent’s mental states. Instead Floridi and Sanders<sup>46</sup> emphasize the notion of distributed morality which accords with Latour’s<sup>47</sup> view of humans and nonhumans acting in a network where the morality is distributed through the network.

The latter view is particularly pertinent when we consider ways in which protection of private data is delegated to a database and where failure to share or retain data contributed to a series of tragedies involving the murder of children. Panic reactions to such tragedies sometimes result in our considering delegating too much morality to a machine as in the suggestion that microchips could be

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<sup>43</sup> L. Floridi and J.W. Sanders. On the Morality of Artificial Agents.

<sup>44</sup> H.M. Collins and M. Kusch. *The Shape of Actions: What Machines and Humans Can Do*.

<sup>45</sup> L. Floridi and J.W. Sanders. On the Morality of Artificial Agents. B. Latour. Where are the Missing Masses? The Sociology of a Few Mundane Artifacts, M. Akrich. The De-Description of Technical Objects.

<sup>46</sup> L. Floridi and J.W. Sanders. On the Morality of Artificial Agents.

<sup>47</sup> B. Latour. Where are the Missing Masses? The Sociology of a Few Mundane Artifacts,

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implanted in children as tracking devices. On the other hand with powerful database and information technologies available to us why should we not use these to increase the 'moral capital' of our society of humans and nonhumans through an appropriate balance of distributed morality, especially as it applies to protection of privacy?

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