Robotics experts give life to Asimov’s ‘three laws’

A group of academics, industrialists and lawyers has drafted a set of principles on building and using robots, hoping to widen the debate on the ethics of robotics, following a retreat organised by the Engineering and Physical Sciences Research Council.

The five principles were inspired by science-fiction writer Isaac Asimov’s Three Laws of Robotics, which were used most famously in his book *I, Robot*. Asimov’s laws state that robots may not harm people, must obey orders from human beings and must protect their own existence, provided that they do not contravene the first two laws in doing so.

The real-life principles are likely to include that robots should not be designed purely as weapons other than for national security reasons, robots should be built to comply with existing laws and that people are ultimately responsible for the actions of robots. The group also states that these people should be identifiable.

The principles also state that while it may be desirable for a robot to appear to have emotions, this potential technological leap should not be used to exploit vulnerable users. This would apply to robotic devices that are used for entertainment or companionship.

The group concluded that, before attempting a public debate on the matter, a more united front needs to be reached between scientists, in order to cover all bases.

“We brought together people not just from the technology areas but from the humanities, social sciences and law,” says Stephen Kemp, Control, Systems Engineering and Robotics Portfolio Manager at the EPSRC. “The technologists realised that there are a lot more voices in the conversation about potential applications than they originally thought so before they even go and talk to the public about the public’s concerns, they need to have some more interdisciplinary conversations and research with their academic partners across the rest of the university departments.”

Kemp suggests that by talking to specialists in other fields, robotics researchers will be better prepared to think about the ethical questions that are thrown up by the expanding use of autonomous systems in areas such as healthcare and home help for the elderly.

The retreat took place in Hampshire between 29 September and 1 October.