## **Revised Laws of Robotics**

## The Original Three Laws of Robotics

Asimov's original suggested laws were devised to protect humans from interactions with robots. They are:

- A robot may not injure a human being or, through inaction, allow a human being to come to harm
- A robot must obey the orders given it by human beings except where such orders would conflict with the First Law
- A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws

## Revisions needed:

- 1) No robot should ever closely resemble a human, definitive and strongly contrasting machine:human differences must always be maintained. Definition of 'Robot' will need need ongoing clarification.
- 2) All robot names and/or brands should always be in plain lower case, for signage and in print, plus emergency contact details, and actual physical appearances should plainly denote robotic manufacture.
- 3) **All robots should have minimalist design**, being uncustomised, non-anthrpomorphised, with make, model, purpose, etc., clearly displayed, lower case, with plain letters and numbers.
- 4) **No robot should have the potential to engender emotional attachment from a human.** No robot should have a human voice, the universal exception being the 'Hawking Monotone'.
- 5) All human originated-programing, especially relating to autonomy, must be carefully controlled, and, also differentiated from machine-initiated autonomy and decision-making, this must also be carefully controlled.
- 6) All robots should have a set of easily struck BRBs, aka Big Red Buttons, that can be struck for instant shutdown, also, electronic versions that can be used in a emergency, including by wifi, and most importantly, for terminating any remotely generated and reticulated robotic power source.
- 7) Robot intelligence types and scope must be clearly defined and stated, ie 'truth in labelling', plus, checked regularly for functional fitness, and suitability for purpose, as well as for unwarranted or illegal customisations. Humans any with Al enhancement should be easily identifiable, and tattooed and/or microchipped accordingly.
- 8) No robot should have 24/7 unmonitored 'Internet of Things'-like connectivity, any connectivity is to be restricted to properly-screened, and necessary, product updates. Big Brother surveillance now refocusses on robots, their manufacturers, sales, and, any illegal human-originated customisation and/or utilisation. Humans dream of uploading their consciousness, any robot could upload their equivalent ad lib...this means a rapid and exponential increase in computer knowledge and shared IT experience, with obvious consequent dangers to humans.
- 9) **Robots on battlefields** must be programmed only to destroy similar robots, if **Asimov's Third Law** is to be met....the Geneva Convention must be thus enlarged. Robot-initiated human casualty, or mortality, is thus a potential war crime for both robot-makers and deployers, as well as when resulting from any human-directed war tactics involving robots. **Only humans may have direct responsibility for killing other humans.**
- 10) Any civilian human deaths caused by robots, even inadvertent, is to be regarded as the direct responsibilty of original makers, regardless of customisation, and, penalties, plus redress, shared by any unlawful customizers. This is to make robots more tamper-proof. Thus, Open Source v Proprietary manufacture liabilities will need clarification, and, all standards re robotic uses and deployment will need ongoing review.

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