

First Discussion Paper (Due Tuesday, October 1):

Write a five-page essay on one of the following topics.

1. You are the lead movie reviewer for *The New Yorker* (<http://www.newyorker.com/>), which is unusual in often featuring very long, analytical reviews of movies, this for a readership more sophisticated than the audience for the typical daily newspaper. It is early July 2004, the Will Smith version of “I, Robot” has just premiered, and you have been tasked with writing the review. You decide to make it a thought piece, adding to a critical analysis of the movie, itself, some reflections on such larger issues as how the movie compares with other recent (remember, it’s 2004) and classic cinematic explorations of robotics, what the popularity of such movies tells us about the public’s attitude toward an expanding role for autonomous systems, and where, in fact, the technology is headed. Write that review.
2. In July 2012, after lengthy study and review, the Department of Defense’s Defense Science Board released a controversial and much-debated Task Force Report on “The Role of Autonomy in DoD Systems” (<http://www3.nd.edu/~dhoward1/autonomy.pdf>). Among the questions raised by critics was whether the policy enunciated here amounts to a cautious, “go-slow” approach or, in fact, tacitly encourages a rapid expansion of research and development, with the aim of near-term deployment of some autonomous weapons systems. You write one of the most widely-read tech trends blogs for WIRED.com (<http://www.wired.com/>). Write a blog entry that helpfully packages the whole debate for your readership and presents your own critical perspective on the Task Force Report.
3. You have a B.Sc. in computer science and engineering from Notre Dame and a Ph.D. in artificial intelligence from Stanford, where your dissertation was supervised by Sebastian Thrun. You worked for a few years at Google, and then for five years at Boston Dynamics. Your new employer, USR (US Robotics), has decided to redirect its R&D from industrial robots to fully autonomous robotic weapons systems and has assembled a world-class technical team for this purpose. Knowing about your Notre Dame experience (which included a course on “Robot Ethics”), USR hired you to oversee the development of the ethics modules for the new weapons robots. Your first assignment is to prepare a technical critique of Ron Arkin’s well-known design concept for ethics modules. But this being more for the USR Board of Directors and less your technical colleagues, it must be brief and accessible to the non-specialist. Write that critique. (Remember, this is a *technical* critique, not an ethical critique.)
4. As the new Director of Notre Dame’s Reilly Center for Science, Technology, and Values, you have been invited to brief the United States Conference of Catholic Bishops (<http://www.usccb.org/>) on the issue of the ethics of autonomous weapons systems. The Vatican has long been a powerful voice for ethics in the conduct of war, but it has yet to take a position on autonomous systems, seeing arguments on both sides of the issue. The Conference of Bishops has sometimes taken radical stands on related issues, as with its very controversial 1983 Bishops’ Pastoral on “War and Peace,” which strongly opposed nuclear weapons (<http://www.nuclearfiles.org/menu/key-issues/ethics/issues/religious/us-catholic-bishops-pastoral-letter.htm>). For your presentation, you must prepare a brief background report that includes a recommendation to the Conference of Bishops regarding the official position that it should adopt on this ever more important topic. Write that background report.