Military Applications of Artificial Intelligence

The impact of AI on military technology and tactics may be tremendous. We may see greather autonomy, sophistication and dispersion of weapons systems and personnel.

During the last few years AI technology-related activity within the military has increased dramatically. This heightened interest and expanding investment in AI may be attributed to a number of factors in particular.

1. The very real progress AI technologies have been making an demonstrating at academic centers and in commercial applications;
2. The increasing complexity of modern – day military operations, brought about in great degree by significant advances in the speed and accuracy of sensors and weapons, coupled with the rapid growth in the amount of critical information to be produced, analyzed, and assimilated under severe time limited manpower; and
3. A growing awareness and acceptance by the military of the potential of AI technologies to help solve military problems.

The possible contributions of AI to defense span the breadth of military activities. Table – 4 relates 14 basic technologies to a number of military-problem areas. Applicability to seven generic military problem areas as well as a number of more specific task domains is indicated as either major of minor. That the matric is quite dense is not surprising; each AI technology is applicable to a wide variety of military task areas, and each problem could profit from a number of AI technologies.

Note also that the generic problem entry “operations” is rated as a potential major application area of almost all of then AI technologies considered. The more specific military task areas enumerated in the table are not only primarily operations oriented, but many are vital components in the critical oprations atea of command, control, communications, and intelligence.

It is hoped that AI will provide new methodologies for handling information acquisition and processing problems which require less computational and communications resources than currently is the case, leading to getting the right information to the commander in the time to act upon it.