

NEW DEVELOPMENTS OF MILITARY SCIENCE IN THE INFORMATION AGE

Colonel (ret) Professor Gruia TIMOFTE, PhD

1. The Characterization of the Information Age and the Information Society

There is absolutely no doubt that advanced Information and Communication Technologies (ICT) and the capabilities that they impart will significantly change the nature of military roles, missions, and methods. Change will come not only to the militaries of powerful nation states but to the militaries of smaller states and non-state actors.

The first modern information revolution began in the mid-nineteenth century and extended for approximately 100 years. This first revolution primarily enhanced communications. During this period, technologies such as the telegraph, the telephone, and the radio came of age. These technologies transformed not only humankind's ability to communicate, but also people's lives. Especially in industrial societies, they changed the ways that people related to one another and altered the ways that business, government, and military and foreign policy establishments conducted their affairs. Given the dimensions of their impacts, these technologies also helped modify the structure of the international system. The second modern information revolution extended from the mid-twentieth century until perhaps the 1980s. During this period, technologies such as the television, early generation computers, and satellites linked the world together in ways that it had never been linked before. These technologies, like the telegraph, telephone, and radio before them, again transformed humankind's ability to communicate; changed the ways in which people related to one another; altered the conduct of business and government; and modified the structure of the international system[1].

We are thus on the verge of a third modern information revolution, one that perhaps should be labeled as "knowledge revolution" since it encompasses advances in information technologies that significantly alter the politics,