

DIGITISATION OF THE BATTLESPACE (LAND) AND THE PRINCIPLES OF WAR

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Abstract. Digitisation is expected to deliver operational benefits. However, it may prove a three-edged sword. Commanders will be better informed, but so will their subordinates and their enemy. The commander's greater comprehension of events is an opportunity. The task of leading an information-rich formation is a challenge. The possibility of information transparency is a threat. Some sophisticated and perhaps brave thinking will be required in order to seize the opportunity, meet the challenge and counter the threat. Technology will never substitute for good generalship and human qualities and moral issues will, if anything, be increasingly decisive in this environment. Commanders will need to be able to focus on critical issues in a wealth of data. Roles and responsibilities should change to emphasise leadership over management. Creativity will be rewarded and predictability heavily punished. Experience suggests that armies will be unable to make radical philosophical changes during peacetime. The next major war will teach some hard lessons. Being ready to learn fast is more important than having the answers in advance.

OPPORTUNITY, CHALLENGE AND THREAT

When a Roman governor was sent off to administer some distant province, the emperor had little option but to choose a reliable person and hope for the best. There was no telephone. An exchange of letters might take days or weeks. The governor would have to deal with any issues largely on his own initiative [1]. Modern communications have changed this situation. The American government is as much in control on the other side of the continent as it is in Washington DC. Digitisation might be expected to have a similar kind of effect. In the past, the commander's knowledge of his formation's circumstances has been limited and lagging behind events. He has left the spatio-temporal detail to subordinates who are on the scene. In the future, the commander may be as well-informed about events in some distant part of the formation as within his own headquarters. In principle, digitisation will allow him to exercise more immediate and direct control.

Digitisation does not just mean better information for the commander. It should also create a shared information space across the formation. The commander's subordinates may acquire as clear a picture of the overall situation as he has himself. This implies their potential empowerment. It is said that the fall of communism in 1989 was precipitated by the fax and photocopier, which made eastern Europeans better informed and harder for their governments to keep under control. It is also no coincidence that Luther and others began to challenge church authority shortly after the printing press had made bibles much more widely available. While army officers are presumably not going to start rebelling against their generals, the wider availability of information may alter the logic of the latter's authority.

Digital technologies, in contrast to fighter aircraft and nuclear weapons, are relatively cheap. This may make it harder for the armies of leading nations to maintain an edge in the electronic battlespace. Some sophisticated equipments are available off the shelf. Mozambique's RENAMO guerrillas used Psion organisers to plan their operations [2], while mobile phones have given Chechen rebels a command and control infrastructure which is superior to that of the Russian army [3]. In today's media-drenched world, up-to-date, in-depth coverage of an evolving operation may also be available through civil channels. Supposedly, President Bush

preferred CNN to the CIA as his source of information during Desert Shield. CNN had a shorter reporting cycle. An aim for digitisation is to achieve information superiority, but operations may end up being conducted in a state of information transparency.

Digitisation is not about doing things in the traditional way only a little bit faster. It creates a new set of factors, new possibilities and new provocations. As the military adapts to the electronic battlespace, there are choices to be made. How they are resolved will determine the military's effectiveness in this environment. These choices are constrained by the fact that the rest of the world is digitizing on all sides. They are also constrained by whatever may be considered to be the objectives of digitisation. These might be to reduce the costs of war, achieve greater frontages for a given formation size, or diminish predictability. These objectives will need to be clarified and kept in mind when commanders develop techniques, tactics and procedures for the new capabilities.

Figure 1 illustrates three themes emerge concerning the control of information in the digitized formation and the choices and constraints implied.

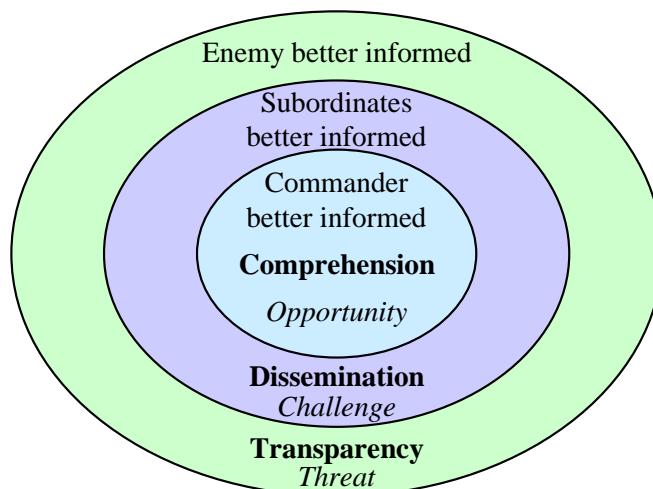


Figure 1. Themes in digitisation.