

Talking about technologies: Science meets Military



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Project goals

In order to assess the advantages and risks of emerging technologies an intensive dialogue between scientists and the individual users of these technologies is crucial - especially in a security and military environment.

A particular challenge during this exchange is the encounter of the specific scientific and military terminologies, which sometimes hamper the communication and hence make it difficult to reach decisions for the future.

This contribution presents a methodological approach that brings scientific expertise and the military or security customers' competence together. The aim of this approach is twofold, namely to identify emerging technologies and by this hot topics in future technologies as well as new technological perspectives and recommendations for decision makers in a military or security context.

Process

First, individual topics are surveyed by means of an extensive desktop research accomplished by a diverse scientific team. As a result, scientists from various scientific fields compile a technical report about the relevant existing and emerging technology topics. In this process, a proper editing of the technological knowledge has to be realized to make it usable for decision-makers in the security or military sector. The results are presented within a two-day Consolidation Workshop starting with the presentation of the researched technologies by the scientists. Subsequently, the customers may intensify their technological understanding within thematic sessions, moderated by the scientists. Within these sessions, content related issues of specific technologies can be discussed and correlated to the military and security reality. These sessions deal with specific aspects of the customers' mission experience.

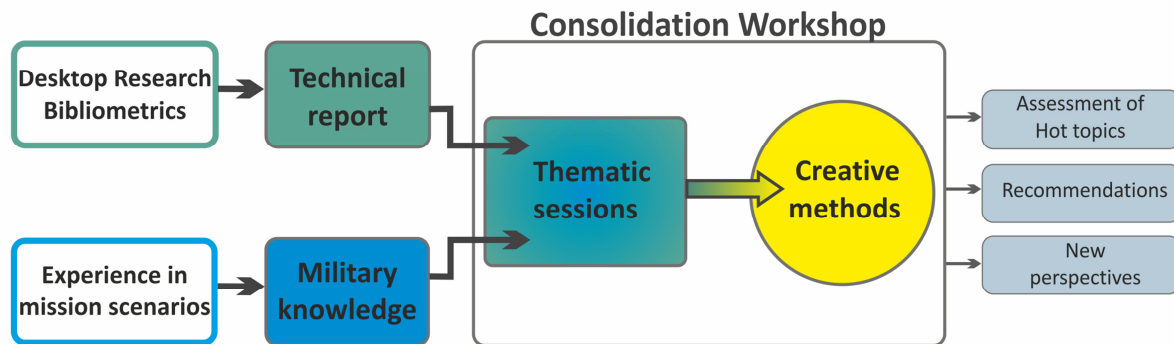


Figure 1 Schematic of the principal methodical approach.

For further evaluation of the possible advantages and risks of the new technologies, the second day begins with a creative method such as “World Café”, Syntegration or a combination of several different methods. In a first approach we combined the classical strategy of “World Café” with parts of the military method “War Gaming”. In this specific case the participants used different scenarios in order to discuss and evaluate the new technologies with respect to a critical evaluation of their capabilities or functional demands. Thus, the Consolidation Workshop facilitates the discussion about the application potential of emerging technologies in a military or security environment.

Results

One challenge in this approach lies in the development of a common terminology to generate a mutual technical understanding. Further, it is required to take the rules and perspectives, governing the different professions, into account. These aspects are essential to get a balance between the scientific and military (or security) knowledge and therefore essential for the final technology assessment.

The final outcome of this process is an increased understanding of specific technological topics, new perspectives for security and military priorities and hence recommendations for the future orientation in these fields.