2016/4/3: The end of frictions? - Big data analyses

The end of frictions? - Big data analyses in military decision-making processes

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The necessity to be forced to make decisions in an environment characterised by complexity, uncertainties and vagueness has always been a feature of military and/or security-political decision-making processes. Big data analyses have the potential of providing qualified solutions to nearly every problem. This, however, only works if the correct questions are asked:

- Which target is to be achieved when in which context?

- Which (internal and external) general conditions/parameters influence the reachability of this target?

- Which information is required in order to be able to prognosticate and/or model the developments interconnected with the objective target?

- Where is the information?

- In which form (structured, unstructured or semi-structured) are the required data available?

In general there are two possibilities to make use of big data. On the one hand, the necessary structure (technique, algorithms and analysis responsibilities) can be established completely internally, or an organisation refers to the knowhow of external providers via so-called shared services. In both cases two requirements must be fulfilled fundamentally:

- Compliance with all relevant regulations concerning data protection and data security;

- Convenient staff member qualifications/analysis capabilities for the interpretation of data (mathematicians, database specialists, etc.).

Concerning the engineering branch, the number of providers making big data analyses available as shared service is increasing. This implies:

- Starting from the problems of the customer, the provider creates precise analyses and visualisations on the basis of the necessary data sources.

- The user can concentrate on solutions instead of having to take great effort for procuring and editing the necessary data. To summarize, the big data technology remains to be an instrument which, despite automations and links, can only support - but not replace - a decision-making process. "Frictions" are not eliminated by it, but at least they become significantly reduced. The principle, which was already recorded by Clausewitz, that decision-making processes are to be developed by a combination of "operational intelligence" and rational methods, still remains decisive.