

New Technologies in Support of Lessons Learned Report Published 31 January 2019

JALLC PROJECT FACTSHEET

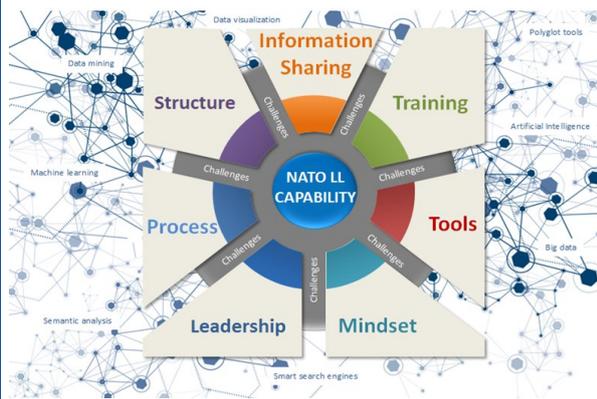
Project Overview

Lessons Learned (LL) is becoming an increasingly important area of research for the Alliance, and one that could benefit from new and emerging technologies. At the 2016 Warsaw Summit, NATO Heads of State and Government agreed to, “... identify advanced and emerging technologies, evaluate their applicability in the military domain, and implement them through innovative solutions.” As such, the NATO Lessons Learned (LL) Capability is a potential area for the application of such technologies (e.g. artificial intelligence/machine learning, analytics, polyglot tools, etc.) in the military domain.

In 2018, Supreme Allied Commander Transformation (SACT) tasked the JALLC to analyse the extent to which existing and emerging technologies could address current and foreseen challenges to the NATO LL Capability in order to develop the requirements for a potential new NATO LL Tool.

Challenges to NATO LL Capability

The JALLC project team based their analysis on a variety of data including documents relating to the NATO LL Capability, NATO initiatives for innovation, and new technologies features. The team also interviewed providers and key participants at the JALLC's New Technology Event 2018 (NTE18), with representatives from 4C Strategies, Airbus, AWS, Indexima, Lockheed Martin, NATO Information and Communication Agency, Philips Speech Processing Solutions, Sopra Steria, and a team from ENSC Bordeaux, Thalys Raytheon Systems, and IBM. These interviews allowed the project team to better identify what products and associated technological features were suitable and on the market.



Mapping New Technologies against the NATO LL Capability

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By then identifying challenges to NATO LL Capability the project team were then able to categorize suitable technological features and map them to the challenges, based on the elements of the NATO LL Capability (see the figure).



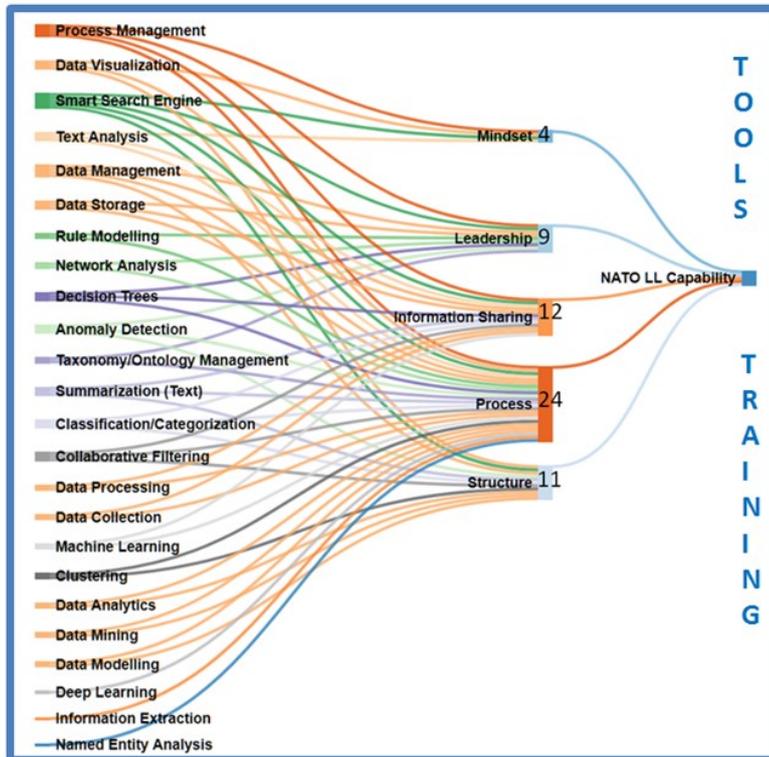
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New Technological Features

The analysis of the technological features showed that there are many technological products that may have the potential to address some of the challenges to the NATO LL Capability. However, there is no single product that can solve all of the challenges to the NATO LL Capability. The complexity of these technological features and how they might be put to use for the Alliance in this context, requires better



Relationship between technological features and the elements of the NATO LL Capability

understanding of their potential and further exploration, review, analysis, and experimentation, as a suite of potential solutions.

The project team concluded that taking a more data-centric approach to the core business of LL will require embedding new technologies in existing and new LL Tools to cope with any potential increase or type-change of data in the (near) future. Doing so will require staff with the appropriate education, skill sets, and adequate training, something that must be considered in parallel to the development of NATO's New Technological future.

Recommendations

In the final report covering the project, the project team made a number of recommendations relating to knowledge development, guidance for further exploration of new technologies, and capability development approaches, including experimentation and demonstration of LL relevant new technologies and their implementation in support of the NATO LL Capability as part of the overall Allied Command Transformation innovation efforts.



The identified challenges to the NATO LL Capability should be taken into consideration in further efforts to improve it and the implementation of new technologies in the LL Tools will need to be done

with short, medium, and long term actions in mind. And, finally, the initiation of education and training opportunities for NATO personnel will be required to increase their knowledge and understanding of new technologies as and when they are implemented.



Project Team

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Mr Stefan Olaru joined the JALLC in 2012 as NATO LL Portal manager, and more recently as a Research Analyst, contributing to several JALLC analysis projects, as an analyst and/or project manager. His recent work has focussed on looking at how new technologies can support the NATO LL Capability.

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