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## **A Systems Approach for Evaluating Current and Emerging Army Open-Source Intelligence Tools**

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**Author Note:** MAJ Song serves as the team's faculty advisor and possesses a B.S. in Engineering Management from USMA and an M.S. in Engineering and Management from Massachusetts Institute of Technology (MIT). The authors would like to thank Army Open-Source Office for providing the necessary resources and information to complete our senior capstone project. The views expressed in this paper are those of the authors and do not reflect the official policy of the U.S. Army, Department of Defense, or the U.S. government.

**Abstract:** Open Source Intelligence (OSINT) is an emerging intelligence discipline with growing potential for the U.S. Army. Today's OSINT tools gather intelligence, enhance privacy and protect organizations. The Army Open Source Office (AOO), sponsored our team to develop a methodology to assess the current and emerging OSINT tools and technologies. Our team applies a systems decision process to develop a value model to improve OSINT operations. This paper outlines the systems approach, defines the problem, and creates a value model that serves two purposes. First, the model measures the performance of the Army's current toolkit to compare against other available tools. Secondly, this model evaluates emerging tools. Lastly, this model provides the decision maker with quantitative measures of performance to make better decisions on the allocation of resources.

*Keywords:* Open Source Intelligence (OSINT), Systems Decision Process, Value Modeling