

Privacy and DyDAn Research

- Citizens have a right to be concerned that methods of data analysis could present a threat to their privacy. This is true not only in the homeland security arena, but also with respect to health data, financial data, and the myriad of individual transaction data captured daily. Citizens also have a right to expect that governments will work to protect individuals' rights to privacy by understanding the mechanisms for misuse of methods of data analysis and then ensuring the necessary safeguards.
- For these reasons, privacy is a fundamental theme of the DyDAn Center's work. This includes research on privacy protection in data analysis as well as having a Director of Data Analysis at DyDAn whose job it is to make sure that all the work at DyDAn will protect the privacy of individuals.
- Privacy protection can and must be a design constraint in data analysis. Privacy preserving data analysis is already a subject of academic study, and is part of the DyDAn Center's work. With our help, DHS can become a national leader in developing principles that ensure privacy protection in data analysis methods. Privacy protection methods include technical, administrative, and legal approaches, such as anonymization, use of cryptography, sophisticated restrictions on access to data sets, and development of Institutional Review Board (IRB) processes for the protection of citizen privacy.
- DyDAn research involves no data collection and only uses open-source data such as blogs that are publicly available. Thus, we will not have access to anyone's private information. There is a vast amount of open-source data that has the potential to help eliminate or mitigate disasters or threats, and we consider it to be of great importance to develop cutting-edge methods to analyze such data. Work on analysis of open-source data is being carried out widely already. We need world-class experts to do it better. Once developed, these methods of data analysis will have application in such fields as medicine, finance, and epidemiology, with great potential to do good.
- Research on privacy protection in data analysis can help us protect our citizens' privacy while also helping us develop techniques that will protect our data from misuse by adversaries.
- Our adversaries have the skill and ability to extract information from open-source data and are surely doing it. We need to keep ahead of our adversaries, both known and unknown, and also understand what they might learn. We must, for our own defense, know what can be gleaned from our open source data in order to better protect it. Research on privacy-preserving data analysis is crucial in helping us protect our data from our adversaries by helping us to understand the extent to which privacy can be compromised in data analysis. We cannot respect privacy if we don't know what we are revealing. Identifying potential areas for misuse of data and designing appropriate safeguards is an important component of DyDAn's research program.