

MISQ Archivist

DICE-E: A Framework for Conducting Darknet Identification, Collection, Evaluation, with Ethics

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Abstract

Society's growing dependence on computers and information technologies has been matched by an escalation of the frequency and sophistication of cyber attacks committed by criminals operating from the Darknet. As a result, security researchers have taken an interest in scrutinizing the Darknet and other underground web communities to develop a better understanding of cybercriminals and emerging threats. However, many scholars lack the capability or expertise to operationalize Darknet research and are thus unable to contribute to this increasingly impactful body of literature. This article introduces a framework for guiding such research, called Darknet Identification, Collection, Evaluation, with Ethics (DICE-E). The DICE-E framework provides a focused reference point and detailed guidelines for scholars wishing to become active in the Darknet research stream. Four steps to conducting Darknet forum research are outlined: (1) identification of Darknet data sources, (2) data collection strategies, (3) evaluation of Darknet data, and (4) ethical concerns related to Darknet research. To illustrate how DICE-E can be utilized, an example empirical study is reported. This exemplar illustrates how DICE-E can guide scholars through key decision points when attempting to incorporate the Darknet within their research.

Keywords: Darknet, deepnet, cybersecurity, cybercriminal, research framework, ethics