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Privacy-Enhanced Television Audience Measurement

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Title:	Privacy-Enhanced Television Audience Measurements
Year:	05/2017
Author:	George Drosatos, Aimilia Tasidou, Pavlos S. Efraimidis
Abstract:	<p>Internet-enabled television systems (SmartTVs) are a development that introduces these devices into the interconnected environment of the Internet of Things. We propose a privacy-preserving application for computing Television Audience Measurement (TAM) ratings. SmartTVs communicate over the Internet to calculate aggregate measurements. Contemporary cryptographic building blocks are utilized to ensure the privacy of the participating individuals and the validity of the computed TAM ratings. Additionally, user compensation capabilities are introduced to bring some of the company profits back to the data owners. A prototype implementation is developed on an Android-based SmartTV platform and experimental results illustrate the feasibility of the approach.</p>