

Accepted Manuscript

The Challenges Surrounding the Regulation of Anonymous Communication Provision in the United Kingdom

Dr. Graeme Horsman



PII: S0167-4048(15)00091-7

DOI: [10.1016/j.cose.2015.06.005](https://doi.org/10.1016/j.cose.2015.06.005)

Reference: COSE 918

To appear in: *Computers & Security*

Received Date: 17 February 2015

Revised Date: 14 May 2015

Accepted Date: 19 June 2015

Please cite this article as: Horsman G, The Challenges Surrounding the Regulation of Anonymous Communication Provision in the United Kingdom, *Computers & Security* (2015), doi: 10.1016/j.cose.2015.06.005.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

The Challenges Surrounding the Regulation of Anonymous Communication Provision in the United Kingdom

Abstract

This article presents an analysis of the regulatory challenges posed by anonymous communication applications in the United Kingdom, which are in widespread use largely due to the online privacy sought by individuals. However, protecting individuals through the use of anonymous applications presents a serious problem in terms of offender identification where malicious use has occurred. Although numerous anonymous communication applications exist, due to the volume of media criticism attracted, indicating its role in a rise in acts of cyberbullying in the United States of America; this article focuses on the anonymous bulletin board Yik Yak. To demonstrate the limitations present when attempting to determine an offender's identity, a digital forensic analysis was carried out on an iPhone handset used for communicating via Yik Yak and the key findings highlighted. Since Yik Yak is growing in popularity, the article proceeds to examine the challenges for regulating use in University campus environments in England and Wales given their status as a 'private communications service providers', remaining outside the confines of the Data Retention and Investigatory Powers Act 2014. A discussion of hypothetical university campus network infrastructures is presented in order to identify the challenge of identifying malicious Yik Yak users, concluding that for anonymous communication applications such as Yik Yak, reliance should be placed upon sufficient data retention periods in order to assist the investigation of criminal behaviour and offender identification.

Keywords: Anonymous, Yik Yak, Data Retention, Law Enforcement, Investigation, Communication, Digital Forensics.

1 Introduction

In 2010, Distefano et al. indicated that the field of digital forensics (DF) and security may be about to witness an influx of applications capable of hampering mobile forensic investigations, through the implementation of anti-forensic techniques. It is argued that this supposition has largely been proven to be accurate and we are now witnessing a migration of techniques which were once confined to traditional desktop operating systems, to mobile platforms through the flexibility offered by mobile application vendor stores. Although anti-forensic procedures are usually designed to destroy evidence (Distefano et al., 2010), those which are intended not to leave evidence, enhancing the user's confidentiality, must also be included in the category, and are the focus of this article. We have now reached a point where privacy and the protection of their online digital footprint are viewed as paramount to members of society. This can be seen through various means, such as the recent Grand Chamber judgement in the 'Right to be Forgotten' case for the removal of online historical data surrounding the appellant (Case: C-131/12Google Spain SL, Google Inc. v Agencia Española de Protección de Datos, Mario Costeja González (2014)), along with the development of online anonymous currencies such as Bitcoin (Reid and Harrigan, 2013) and online anonymous markets such as Silk Road (Phellps and Watt, 2014). Partly due to what is now termed 'The Snowden Effect', the fallout from allegations made by the former government computer analyst, coupled with media hype have now made individuals more aware of their online presence and how vulnerable it can make them (Hill, 2014). As a result, we are now potentially witnessing the increased use of technologies capable of improving our privacy (Tor Metrics, 2013) and allowing anonymous behaviour in cyberspace. In addition, modern media has played an important role, as we now witness what is termed as

Download English Version:

<https://daneshyari.com/en/article/6884231>

Download Persian Version:

<https://daneshyari.com/article/6884231>

[Daneshyari.com](https://daneshyari.com)