The user tracking behaviour of 7 popular Android applications is examined, with the goal of assessing potential privacy concerns present in each. The applications examined are: The Irish Times, Irish Independent, RTE News, BBC, The Guardian, CNN, and The New York Times.

When logged into these applications, the user behaviour/interactions recorded by each app may be linked to the real-world identity of the user. The Irish Times, Irish Independent, RTE, Guardian, CNN, and New York Times applications make use of tracking services which collect data which can be partially or fully linked to the real-world identity of the user. The functionality to opt-out of the collection of data which is linked with the identity of the user is only provided in the Irish Independent and CNN applications.

Non-anonymous account IDs are transmitted in tracking requests alongside anonymous Android device identifiers. In doing this, the potential exists for these anonymous identifiers to be de-anonymised, and linked to the real-world identity of the user. With the exception of the BBC and Guardian applications, all apps transmit non-anonymous identifiers alongside anonymous identifiers when the user is logged in. Identifier de-anonymisation of the Google Advertising ID is a particularly troubling privacy concern, since this ID is used extensively for tracking/advertising purposes in Android applications.

The potential for cross-application tracking across a number of these applications is identified. Services such as Google Analytics and the Facebook SDK are used widely across these applications for the purposes of user tracking. Via the use of a system-wide device identifier, these services are capable of tracking user behaviour across independent applications.