# The Security Risks of Dating Apps

About Access Authorisation and Data Protection



Investigation Autumn 2016



# **Summary**

- √ 10 UK apps were tested.
- ✓ Alarmingly, many of the apps that we tested were able to very easily access smartphone data.
- ✓ Apps from online dating agencies were the safest.

## **Foreword**

What exactly do we know about the use of dating apps? Apps are downloaded quickly and deleted again just as fast if we don't like them – but are you aware of what happens to your data?

In our investigation, we have dealt with the subject and have examined the most popular dating apps and their user access permissions.

We therefore wish you an enlightening read that brings insight.



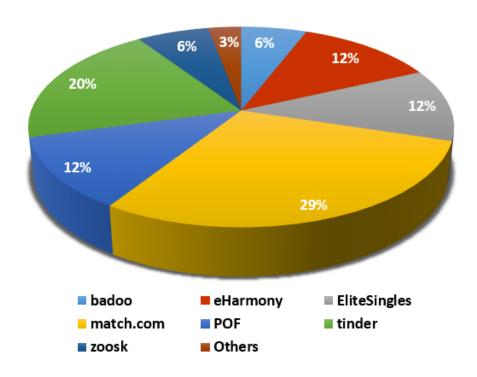
# **Investigation of the US Dating App Market**

At the beginning of February 2016, Flexera investigated the risks that online dating apps exposed the likes of BYOD (Bring Your Own Device). The focus was on US dating apps that ran on the iOS, primarily concentrating on the risk that people posed to themselves while using mobile flirt apps on company devices. Most employers are completely unaware of the security risks themselves. Many use smartphones and tablets for dating and other leisure activities on devices primarily geared towards work and business.

### So what does this mean for dating apps in the UK?

LeadingDatingSites.co.uk took some time in September 2016 to examine the 10 most popular mobile dating apps for Android systems in the UK. Our aim was to find out just how liberal the access permissions were. The factors we chose to find the most popular include the number of downloads, how many members they had as well as comments and user feedback. In this case, we have left out apps that focus purely on sex.

# Percentage distribution of the largest dating apps in UK





## Here Are the Dating Apps We Analysed

**badoo** A "social dating app" that focuses not only on romance, but also meeting new friends. It is popular in 180

countries and has over 250 million users.

**eHarmony** An American original online dating agency that matches singles based on personality. With over 2 million

UK members, it is quite widely-used.

**EliteSingles** Another classical dating agency that has brought out an app version to accompany its desktop site.

Nearly 2 million users in the United Kingdom.

**happn** Happn is a relatively new dating app that can boast over 10 million users worldwide and is still growing.

**Lovoo** Similar to Badoo in its goals (both romance and meeting new friends), Lovoo has over 30 million users

worldwide.

**match.com** One of the first online dating sites which posts online personals. In total claims 60 million users, with

nearly five million UK users.

**POF** With 2 million members and many more around the world POF became famous thanks to being free.

**Skout** A popular dating app available in over 100 countries and with a user base of 5 million (and growing).

**tinder** Probably one of the most well-known dating apps, Tinder is popular on a global scale with over 50 million

dating apps!

**zoosk** A Silicon Valley success, Zoosk focuses on flirting and chatting. Over a million users can be found in the

UK and well over 30 million worldwide.

# Dating App Investigation: Criteria We Focused On

With these 10 dating apps, we've taken the time to look more closely at the important factors concerning access permissions regarding the kind of information they fail to protect, yet require users to hand over in order to download it: in-app purchases, location, access to camera and microphone, SMS, photos/media/data, social network, Bluetooth and other miscellaneous factors.

Further down we reveal what other access options dating apps have with these permissions.

#### **Results of Our UK App Investigation**

The following infographic shows a summary of which access permissions each of the 10 apps take advantage of:

### **Access Permissions of Leading Dating Apps**

Dating app	In App Purchases	Contact	Location	SMS	Camera Microphone	Photos Media & Data	Storage	Social Network	Bluetooth	Other
badoo	<b>A</b>	<b>A</b>	<b>A</b>	A	A	<b>A</b>	<b>A</b>	<u> </u>	<b>A</b>	A
eHarmony		A			<b>A</b>	<b>A</b>	<b>A</b>			
EliteSingles	<b>A</b>	A				<b>A</b>	A			A
happn	<b>A</b>	A	<b>A</b>		<b>A</b>	<b>A</b>	<b>A</b>	<u> </u>	<b>A</b>	A
Lovoo	<b>A</b>	A	<b>A</b>			<b>A</b>	A	<b>A</b>		A
match	<u> </u>	<b>A</b>	<b>A</b>			<b>A</b>	<b>A</b>	<u> </u>		A
POF		A	<b>A</b>		<b>A</b>		<b>A</b>			A
Skout	<b>A</b>	A	<b>A</b>	A	A	<b>A</b>	A			A
tinder	<b>A</b>	A	<b>A</b>		A	<b>A</b>	A	A	<u> </u>	A
zoosk	A	<b>A</b>	<b>A</b>		<u> </u>	<b>A</b>	<b>A</b>	<u> </u>		A

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## The Results of Our Survey

- ✓ 80 percent of all apps that we tested required users to allow access to photos, media and other data.
- √ 70 percent of the reviewed dating apps we tested (among them Zoosk, Skout and Badoo) demand access to the smartphone's camera and microphone functions.
- √ 70 percent of apps investigated required users to share their location.
- ✓ 30 percent of the apps we test can activate a smartphone's Bluetooth device, therefore sharing information with other devices.
- ✓ 20 percent of apps require access permission to the phone's SMS function, i.e. reading and sending text messages.

It cannot be said to which extent dating apps use these permissions. However, we have noticed that those from the more classical matchmaking sites such as EliteSingles tend to be a lot less invasive than those coming from "free" providers, such as Tinder or Badoo.

We are of course aware that this list is just a snapshot of the current state (08/2016) of dating apps. With new updates, the aforementioned apps could add or subtract these permissions. The measures that you can take in order to protect yourself and your information are detailed in our online dating tips.



# What Each Permission Means (and Possible Consequences)

#### 1. In-App Purchases

In-app purchases refer to extra features which can be bought within the app itself: i.e., unlocking functions such as a subscription to the provider.

#### 2. Contact

An app is free to use the contacts found on your device. It is also free to read them and change contacts.

#### 3. Location

A downloaded app can take the location of your device and detect where it is. With this access the app can, among other things:

- ✓ Determine your rough location (based on your network).
- ✓ Find your exact location (through both GPS and network).
- ✓ Turn your GPS access on and off.

#### **4. SMS**

Both SMS and MMS functions on your device can be used by the app. This includes the use of text, pictures and video messages. Access can also include, among other things:

- ✓ Receiving SMS.
- ✓ Reading SMS/MMS.
- ✓ Receive MMS, for example, pictures and videos.
- ✓ Process your SMS or MMS.
- ✓ Send an SMS, for which you would incur fees.

#### 5. Camera/Microphone

A downloaded app can use the microphone and camera on your device. This access can, among other things, include:

- ✓ Record pictures and videos.
- Record sounds.

#### 6. Photos/Media/Data

The saved data on your device can be used by the app. Such access allows for, among other things:

- ✓ Reading your USB content (i.e., your SD card).
- ✓ Changing your USB-saved content or deleting it.
- ✓ Formatting your external storage.
- ✓ Turning your external storage on or off.



### 7. Storage

This means that the app can change the saved information on your device. With this access it can, among other things, include:

- ✓ Change or delete the content on your USB storage.
- ✓ Read the content on your USB storage.

#### **√**

### 8. Social Networking

This means the app is granted access to your social network (Facebook, Instagram, Twitter etc.) as well as share data on those platforms. This also includes:

- Reading your timeline.
- ✓ Posting things to your timeline.

#### 9. Bluetooth

An app is granted permission to activate the Bluetooth function on your device and share data with others. This access can:

- ✓ Access your Bluetooth freely.
- ✓ Connect with other Bluetooth devices.

#### 10. Other

The app is given permission to take your personal settings and use them as it wishes. Access can include:

- ✓ Searching for data on the Internet.
- Calling up network connections.
- ✓ Implement a start.
- ✓ Control the vibrational settings.
- ✓ Control the vibrational settings.
- ✓ Deactivate resting mode.
- ✓ Connect with and separate from wifi connections.
- ✓ Change your network connection activity.

## **About LEADINGDATINGSITES.CO.UK:**

LEADINGDATINGSITES.CO.UK is a free online portal forcused on providing:

- Review and evaluation of online dating sites.
- Advice for beginners and experienced online daters.

Since 2008, more than 250,000 singles from the UK have used this portal as their gateway to memberships in their desired online dating site. Recommendations, interviews or test report claims have been published in over 100 press, TV and radio outlets.

#### **About metaflake**

Based in Cologne, Germany, the metaflake network has 12 fulltime employees and currently operates online dating review websites in 14 countries.



