Techniques for countering privacy threats of Location-based services

Lauri Suomalainen

Seminar
UNIVERSITY OF HELSINKI
Department of Computer Science

Helsinki, February 9, 2016

HELSINGIN YLIOPISTO — HELSINGFORS UNIVERSITET — UNIVERSITY OF HELSINKI

Tiedekunta — Fakultet — Faculty	Laitos — Institution — Department
Faculty of Science	Department of Computer Science

Tekijä — Författare — Author

Lauri Suomalainen

Työn nimi — Arbetets titel — Title

Techniques for countering privacy threats of Location-based services

Oppiaine — Läroämne — Subject

Computer Science

Työn laji — Arbetets art — Level	Aika — Datum — Month and year	Sivumäärä — Sidoantal — Number of pages
Seminar	February 9, 2016	1

Tiivistelmä — Referat — Abstract

Abstract

Avainsanat — Nyckelord — Keywords

Geo-location, Privacy, Social Networks

Säilytyspaikka — Förvaringsställe — Where deposited

Muita tietoja — Övriga uppgifter — Additional information

Contents

1 Introduction **1**

2 Threats in Location-based Services **1**

3 Techniques for countering the privacy threats **1**

4 Evaluation of the techniques **1**

Most of the social networking services today exploit location-based data in one way or another. Services like Facebook allow users to GeoTag their current location and tag themselves and their friends. In exchange the service can use the data to offer recommendations, news and so on. While the users of the services are often aware that they are providing personal locational data, its pervasiveness and accuracy may come as a surprise and have serious repercussions when it comes to users' real-life privacy. A malicious actor such as a burglar could exploit the data a user provides to for example find out their street address and times when they are not home. This seminar paper reviews and evaluates several techniques used to preserve and protect users' privacy when using Location-based services. The goal for the techniques is to counter several threats Location-based Services face in such manner that users can still use said services without compromising their security.

1 Introduction

Moi

2 Threats in Location-based Services

3 Techniques for countering the privacy threats

4 Evaluation of the techniques