ABSTRACT

As commercial interest in LBS increases, legal and regulatory bodies are becoming increasingly interested in the extent to which use of LBS may affect individuals’ privacy. This chapter discusses the nature of the privacy-related issues arising from the use of commercial LBS and gives examples of approaches that might be taken to best address these issues from the perspective of users of LBS and commercial providers of LBS. It identifies and analyses some of the key privacy issues that arise from use of LBS and the ways in which these types of issues are being regulated in some jurisdictions. It also suggests some best-practice guidelines for how these issues might be best dealt with in order to ensure that individuals’ privacy is protected. Given the increasing importance of privacy issues to consumers and their likely reluctance to use commercial LBS if significant privacy concerns are not addressed, this chapter concludes that both consumers and commercial LBS providers will benefit from privacy concerns being addressed appropriately. This chapter identifies and analyzes these issues on a theoretical level so that the issues and approaches suggested may be useful to both privacy advocates and regulators and to providers of LBS, and will remain relevant as LBS become more sophisticated.
INTRODUCTION

While the processing of location information in mobile communication networks is not a new phenomenon, increasing interest in use of location technologies for security and emergency purposes, as well as the numerous possible commercial uses of this information, has driven the development of higher-accuracy location techniques. As a result, there is now a broad and rapidly expanding range of commercial location-based mobile services (LBS) available to consumers. It is likely that the types of LBS available to consumers will become increasingly sophisticated.

A key concern arising from the use of LBS is whether use of individuals’ location information for the purpose of providing LBS interferes with their privacy. A common theme that arises from research and discussions relating to privacy and LBS is that individuals want a level of control over the collection and use of their location information for commercial purposes.

Some jurisdictions have already implemented laws and regulations specifically aimed at protecting individuals’ privacy in the context of LBS, while others have general privacy laws that protect location information to some extent. Some jurisdictions are yet to implement any laws that protect location information.

As the use of LBS becomes more widespread, it will be important that laws and regulations applicable to use of LBS continue to provide adequate protection for individuals’ privacy and that such laws and regulations can adapt to new uses of LBS in the future. Further, as discussed below, given individuals’ increasing concern with their privacy when using LBS and their reluctance to use services that do not ensure that their privacy will be protected, it is also in the interest of commercial providers of LBS to adequately address these privacy concerns in their development and provision of LBS.

A purpose of this chapter is to identify some of the key privacy issues that arise in the context of LBS and analyze the ways in which these issues might best be addressed in order to ensure that individuals’ privacy is protected. This analysis may be useful both to privacy advocates and regulators to assist them to identify what are the key privacy issues in the context of LBS, and to providers of LBS to assist them to understand the way that existing or proposed privacy laws may affect their practices and to develop privacy policies and practices that may assist them to comply with laws or otherwise gain consumer confidence.

As LBS are likely to become increasingly sophisticated, and as privacy laws vary greatly among jurisdictions and are rapidly changing, this chapter aims to identify and analyze issues on a theoretical level so that the issues raised and suggested approaches are useful both now and as the issues develop.

BACKGROUND

Location information is information about the specific location of a mobile device at a particular time or over a period of time, such as a GPS-enabled navigation device, mobile phone, personal computer or personal digital assistant. Location information is obtained by telecommunications carriers through the integration of computing and wireless communications technologies and is obtained when individuals use such mobile devices or often simply when the device is switched on.

Some of the common non-commercial uses of LBS relate to emergency services, such as the E-911 feature in the United States and roadside assistance services, and law enforcement, such as investigation surveillance of people suspected of criminal activities and investigating the location of missing persons (Lockwood, 2004; Michael, Perusco & Michael, 2006).

Some of the common commercial uses of LBS involve individuals being sent information or advertising messages to their mobile devices,