

INFO ESSAY 2

Strengthening Carshare's Strategy Using Information Technology

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To ensure that Carshare is able to deliver a satisfactory service to its users, the company should incorporate information technology solutions to improve the reliability, quality and efficiency of its offerings. To achieve this, it is suggested that Carshare creates security controls, introduce a customer relationship management system, and inform staff members of internal and external threats using security education training awareness. Additionally, Carshare should also consider using green information technology to mitigate the negative impacts of its offerings. As the company is not only responsible to its consumers, but also the environment it operates in. In this essay, we will discuss the issues of Carshare's proposed concept and discuss how information technology can be used to resolve these concerns.

Ethics are a system of morals and principles, which governs behaviour (Gray, 2015). There are a variety of moral viewpoints of which Carshare could take when approaching an ethical dilemma; utilitarian, right based, fairness based, and common good (Gray, 2015). These are varying stances which would influence Carshare's strategy moving forward. Assuming Carshare is only intending to collect the personal information of certain groups of users, an ethical challenge posed by Carshare's new strategy is inequality. This decision means that Carshare is treating its customer unequally based on factors such as credit scores, social media activity, and demographic factors.

From a rights-based approach, where ethicality is perceived through the lens of moral rights, Carshare's decision to treat customer's unequally based on personal information would be seen as unethical (Gray, 2015). This is because an individual has the right to be treated equally to their peers regardless of income, profession or social status (Gray, 2015). Therefore, Carshare's decision to only collect information of users who are deemed 'high risk', could be seen as bias and discriminatory as it communicates that certain users deserve less privacy. With consumers preference for ethical companies increasing, proceeding with this action may damage the company's reputation, which could discourage users from purchasing Carshare's services (Sudbury-Riley, 2016).

To address this issue, Carshare is able to utilise information technology to assist in ensuring that the company's actions are morally sound and ethical. Instead of only collecting personal data of certain users due to privacy concerns, Carshare should collect this information of every user and instead create procedures which dictates who this information can be accessed by and when this information can be accessed. These can be done using information technology tools such as access controls and encryption. This will ensure that the privacy of all users is protected from internal and external threats (Rezgui, & Marwa, 2003). Therefore, this would mitigate the ethical concerns of

Carshare's new strategy and ensure that Carshare's action coincides with the rights-based approach to ethics.

Carshare has the obligation of ensuring that the privacy of its users is protected and is used appropriately. To achieve this, Carshare must ensure that the data they've collected is authorised, accurate and confidential (Gray, 2015). Assuming that users have agreed to disclose their personal information to Carshare, a potential privacy infringement caused by Carshare's new strategy is the depth of the data collected.

The purpose of Carshare's new strategy is to ensure that cars being rented out are returned in a timely matter to the owners. By recording videos, using facial recognition software, and constantly tracking the location of its users, it could be argued that Carshare is collecting more information than required to achieve this agenda. This is because Carshare would only require the location of a rented car, in the event where a car owner reports that their vehicle has not been returned. Thus Carshare is at risk of breaching the first principle of the 'Privacy act 1993', which outlines that the information Carshare collects should be adequate, relevant and not excessive in relation to the Carshare's objective (Privacy Commissioner, 2013). The implication of this action is that Carshare could be fined up to \$50,000 if they are found guilty of breaching this act (Privacy Commissioner, 2013).

To mitigate this privacy concerns, Carshare could create a customer relationship management system that can assist Carshare's users with their complaints, limit their information collection to the location of the car, and encrypt users location (Ngai, 2005), (Gray, 2015). This would mean that Carshare would only access a users location data when a complaint has been verified through the customer relationship management system and limit the number of people who can access this data internally and externally (Hoven et al., 2018). By decreasing the depth of user information collected, Carshare reduces its risk of breaching the 'Privacy act 1993'.

Security is the basis of trust between Carshare and its users. Carshare's users have disclosed sensitive and personal information to Carshare (location, video, facial recognition). Therefore, it is the company's responsibility to ensure that its database is secure from inside and outside threats (Gray, 2015). Especially as this information is known to pose a serious threat to a user's privacy and safety, due to its ability to identify a user's home address, points of interest and participation in significant events (Ataei & Kray, 2016).

Assuming that Carshare doesn't have any security safeguards implemented, other than its three-day video deletion policy, the company faces a high risk of a security breach. Specifically from internal sources, as there is no limitation on who can access the information collected by Carshare within the company, nor has Carshare educated its staff on security awareness. Therefore, it is possible Carshare employees may be unknowingly distributing personal information to third parties through viruses, worms and trojan horses (Soomro, Shah & Ahmed, 2016). If a breach was to occur, users would be discouraged from using Carshare services as the company would appear to be unreliable (Cheng, Lui, & Yao, 2017).

A solution which could diminish security issues for Carshare is to firstly provide its staff members with security education training awareness. This is so they can be aware of potential security hazards and how to combat them (Gray, 2015). As a result, this would reduce the possibility of unintentional security breaches. Additionally, Carshare should adhere to the CIA model where information is kept confidential, in a manner with limited accessibility and is used with integrity to limit intentional breaches (Gray, 2015). Lastly, Carshare should adopt multi-factor authentication and whitelisting in its information security controls. This is to discourage breaches from a third-party software (Gray, 2015). Overall, these controls work together to secure Carshare's platform and protect Carshare's reputation.

It is important that Carshare upholds the triple bottom line, where the company does not only operate for financial profit but also strives to create social and environmental benefits (Gray, 2015). Green information technology is an innovative, effective and efficient method of increasing the sustainability of Carshare's services (Bai & Sarkis, 2013). Carshare depends on encouraging vehicle use. Therefore, the company is directly contributing to carbon emission. With climate change becoming a growing concern for many users, consumers are likely to be discouraged from using Carshare's services if they do not mitigate the environmental impact of their operations (Burns, 2013).

A way Carshare could contribute to sustainability and maintain its social merit, is to use information technology to reduce the amount of carbon emitted from vehicles used under carshare services. Under the new strategy, Carshare has proposed that they will incentivise fuel-efficient driving and provide a traffic navigator to reduce carbon emissions.

Another method which Carshare can implement to further reduce their environmental impact is smart parking. Smart parking uses in-ground, camera or counting sensors to transmit the availability of a carpark to drivers without the need to be physically present in the area (Idris et al,

2009). This is a means to reduce congestion and inefficiencies created from drivers searching for a carpark. Which means that drivers are able to reduce their carbon emission and efficiently consume fuel. Coupled with Carshare's aforementioned offering, cars in CARshare's fleet would create a lower level of carbon emission than that observed from cars that are not assisted by green information technology. Therefore this would mean that Carshare would be making a positive contribution to environmental sustainability, as they are reducing the level of carbon emission from vehicles.

Carshare has a strong potential to create value for consumers and the planet, but this can only be made possible if the flaws in Carshare's new concept are addressed and corrected. Information technology is a fundamental part of strengthening Carshare's operations. With Carshare's new concept creating issues in regards to ethicality, privacy and security, it is imperative that Carshare introduces information technology solutions to mitigate the threats posed by these issues. With these adjustments, Carshare will be able to ensure that the benefits of their services outweigh the negatives for users. Additionally, Carshare's new concept also outlines methods to reduce carbon emission, to support this agenda Carshare is able to implement the use of green information technology to reduces fuel consumption. This allows Carshare to produce benefits for the planet, as car share users are producing less carbon when using Carshare's services than they would be producing without the assistance of green information technology.

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