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Treatment of biometrically processed personal data: Problem of uniform practice under EU personal data protection law

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A B S T R A C T

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The application of biometric technologies has become almost commonplace. They can help to raise the security level and make identification and authentication procedures easy, fast and convenient. Biometric technologies are widely used to process personal data. They are particularly favoured in business. The present research primarily conducted in the corporate sphere has revealed that treatment of biometric data by individual nation states essentially differs. Some nation states have chosen to prohibit any use of biometric technologies in processing personal data. However, such use is acceptable in certain cases where the processing entails no sensitive data or threat to personal privacy. Thus, the question of data attribution to sensitive data becomes relevant.

The valid EU law on personal data protection *expressis verbis* does not regulate processing biometric data in detail leaving member states freedom of choice. Meanwhile, the General Data Protection Regulation leaves no alternatives, ascribing biometric data to sensitive data, subject to a prohibition for processing that may be deemed an extreme position and justification of which is uncertain. Therefore, the authors of the publication present their insights and evaluations by classifying personal data processing by means of biometric technologies into two groups. Such classification directly affects evaluation of personal data processing from the legal point of view. The key conclusion made by the authors is that in certain cases where the risk to privacy is minor, the use of biometric technologies to process personal data should not be prohibited. The practice of non-prohibition would encourage the use of biometric technologies equally applicable in all EU member states. The present context has prompted the authors to discuss possible consequences and effects of the adopted regulation and suggest carrying out reliable research in the field and urging an immediate discussion of stakeholders.

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1. Introduction

Computerized or automated biometric systems have become available in business only during the last two decades, thanks to the rapid development of technologies. The rapidly developing biometric technologies grant business a possibility to apply various automated data processing, personal identification and surveillance techniques. The obtained personal biometric data may be compared with other data available in individual databases. When the system identifies correspondence between a database record and data on a particular individual, the system reports on the identified match. The modern biometric technologies also allow identification of emotional states, temperature, etc. of an observed person. There are two major categories of biometric technologies:

- Technologies based on physical and physiological characteristics applicable to analyse and compare person's physiological attributes: fingerprints, iris, retina, face and palm outline, ear shape, body odour, voice, DNA analysis, sweat pore analysis, etc.;
- Technologies based on behavioural patterns applicable to analyse individual's behavioural features: handwritten signature, keystroke patterns, gait, breathing, etc.

Such technologies and their combinations are quite widely applied in business; for instance, surveillance of physical activity, sleep tracking or face and voice recognition may be used to deliver particular services.¹

The use of biometric technologies is inseparable from the issue of personal data protection. The issue has been widely discussed and debated recently. Some cases are deemed to pose a serious threat to user's privacy. For instance, equipping video surveillance systems and smartphones with facial recognition systems based on social network databases could put an end to anonymity and untraced movement of individuals². However, we should bear in mind cases where biometric technologies are necessary to safeguard the key personal interests: national and personal security (crime investigation and public order) or safety of applied technologies (access control, personal data security) where legitimate privacy intrusion is inevitable.

In this context, legal regulation of personal data and its application and interpretation become extremely important. In some cases, use of biometric technologies should be encouraged, while in other cases where certain threats to privacy are identified, such use may be indirectly restricted. Therefore, it is important to analyse features and applicability of biometric technologies and experiences and existing legal modes of individual nation states, with the aim to evaluate the actual

¹ ARTICLE 29 - Data Protection Working Party. Working document on biometrics. 12168/02/EN WP 80, <http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2003/wp80_en.pdf> [Accessed 10 June 2016].

² Opinion 3/2012 on developments in biometric technologies. Article 29 data protection working party. WP193. [http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2012/wp193_en.pdf]; p. 2. [Accessed 10 June 2016]

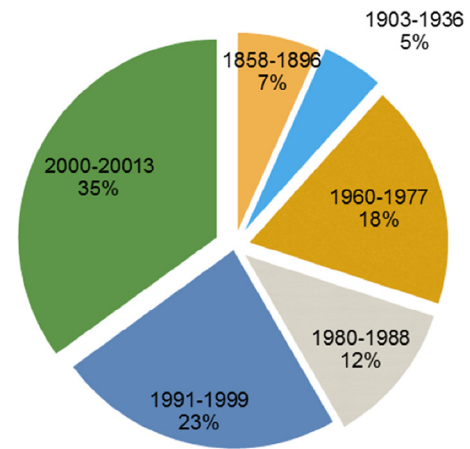


Fig. 1 – Percentage of events affecting development of biometrics compiled by author Stephen Mayhew.

threats to citizen privacy and to draw the necessary conclusions on the use of biometric technologies in personal data processing.

1.1. The use and spread of biometrics in EU and separate EU countries

Most of the early biometric systems were based on principles introduced several hundred years ago. Hi-tech biometric systems did not start until the first computer systems were introduced in the second half of the 20th century. The actual breakthrough in biometrics took place in 1990s and the use of biometrics became a commonplace in early 2000. The most important historical dates in the development of biometrics may be described graphically (Fig. 1).³

The use of biometric data in business is constantly expanding to provide growing benefits to large enterprises and national industries. The top three uses of biometrics in business are the following:⁴

- **Data protection.** Data protection is the most frequent reason to use biometric data in business. Security solutions are constantly being improved. For instance, the US health care institutions use biometric data to reduce illegal use of sensitive data. Any loss of sensitive data may incur additional costs to the health care institution. To avoid possible fines and ensure patient confidentiality, most US hospitals introduced individual biometric data access systems. Data protection by means of biometric technologies is particularly relevant in businesses delivering financial services where cases of identity theft remain frequent.
- **Safety of employees.** Business organizations often face the problem of employee safety including surveillance of work

³ Stephen Mayhew. History of Biometrics. BiometricUpdate.Com 2015 <<http://www.biometricupdate.com/201501/history-of-biometrics>> [Accessed 10 June 2016].

⁴ Team Synerion. Top 3 Uses of Biometrics in Business. Synerion Blog. 2015 <<http://blog.synerion.com/top-3-uses-of-biometrics-in-business>> [Accessed 10 June 2016].

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