

The Impact of the General Data Protection Regulation on Human Resources Management in Schools

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Abstract—The General Data Protection Regulation (GDPR), concerning the protection of natural persons within the European Union with regard to the processing of personal data and on the free movement of such data, became applicable in the European Union (EU) on 25 May 2018 and transformed the way personal data were being treated under the Data Protection Directive (DPD) regime, generating sweeping organizational changes to both public sector and business. A social practice that is considerably influenced in the way of its day-to-day operations is Human Resource (HR) management, for which the importance of GDPR cannot be underestimated. That is because HR processes personal data coming in all shapes and sizes from many different systems and sources. The significance of the proper functioning of an HR department, specifically in human-centered, service-oriented environments such as the education field, is decisive due to the fact that HR operations in schools, conducted effectively, determine the quality of the provided services and consequently have a considerable impact on the success of the educational system. The purpose of this paper is to analyze the decisive role that GDPR plays in HR departments that operate in schools and in order to practically evaluate the aftermath of the Regulation during the first months of its applicability; a comparative use cases analysis in five highly dynamic schools, across three EU Member States, was attempted.

Keywords—General data protection regulation, human resource management, educational system.

I. INTRODUCTION

SHORTLY before the GDPR became applicable, 'The Guardian' warned that employees would be able to file a 'subject access request' (SAR) to their employers and a failure to timely deliver so, would cause both private and public sector organizations high fines [1]. A few months earlier, the European Court of Human Rights delivered a judgement in *Bărbulescu v. Romania* case [2], finding a violation to the right to privacy. The applicant was dismissed for using the internet at his place of employment during working hours, in breach of internal regulations, after the monitoring of his communications by his employer. These two stories are just an indication of the importance of privacy and personal data protection in the context of workplace and especially in our digital era.

According to a study that run by 'The Economist' in 2010, the total amount of information processed globally was estimated to be 1,2 zettabytes, meaning $1,2 \cdot 10^{21}$ bytes, at a growing rate of 60% per year [3]. Much of such information pertains to identified or – at least – identifiable person, making these pieces of information – in the EU jargon – 'personal

data'. In order to deal with the pressing need to safeguard the data protection rights in an era of constant technological progress and Big Data prosperity, the EU decided to enact a new law that would enhance the ways personal data were being handled under the previous legal regime, i.e. the DPD [4]. The GDPR [5], frequently judged the most innovative data protection law in the last 20 years, intended to address all the challenges personal data protection was facing.

Many commentators have stated already that the DPD presented several definitions and purposes that would remain valid in the GDPR [6]. Nevertheless, the GDPR introduces new obligations that, unquestionably, impose a pivotal impact as review and redefinition of current organizational and technical data protection measures will be required, in order to ensure compliance with the GDPR.

HR departments already process many types of personal data and are not immune from technological revolution when using multiple technologies to help them through the handling of such data. However, in light of the GDPR, transformation of the way personal data ought to be handled and crucial changes need to be adopted regarding the ways HR department operates on its daily practices. According to article 15 (1) GDPR 'the data subject shall have the right to obtain from the controller confirmation as to whether or not personal data concerning him or her are being processed' and article 15 (3) GDPR 'the controller shall provide a copy of the personal data undergoing processing'. This possibility in conjunction with the phenomenon that a lot of people working in HR departments, have actual problems about how to process from now on the huge amount of personal data collected, certifies the implications of implementing the new Regulation in the HR operations.

The primary focus of interest was the way a GDPR-compliant HR department could affect the quality of the provided services in schools and therefore the advancement of the educational system. A well-organized and efficient HR department is capable of affecting deeply schools and the way they deliver their services to students.

The paper is structured as follows: After the introductory section, Section II provides a short recursion to the protection of personal data and its connection with the workplace, while Section III cites the definition of HR management and its role as a key social practice. Section IV describes the decisive role played by the HR department in the proper functioning of a school and the educational system in general. Furthermore, Sections V and VI determine the complications HR departments were facing before the GDPR and the complications they are dealing with after the GDPR's

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enforcement. In Section VII a comparative use case analysis is conducted in five schools across three EU Member States, examining the impact of GDPR on HR management from their perspective. The questionnaire was designed based on the main aspects of GDPR that are likely to affect HR departments, in order to acquire clear information on various processes and steps taken. Section VIII proposes possible solutions to the existing problems and finally, Section IX concludes the paper.

II. A BRIEF HISTORY CONCERNING THE LEGAL FRAMEWORK

The right to respect for private life and the right to personal data protection, however closely related, as a matter of fact, differ in their formulation and scope. The notion of 'privacy' is traditionally attributed to the notable article 'The right to privacy' by the American scholars Warren and Brandeis in the Harvard Law Review, published in the late 19th century [7]. Primarily, the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR) [8], drafted by the Council of Europe in 1950, entered into force in 1953 and played a critical part in the protection of the right to privacy. Data protection in Europe was introduced in the 1970s, yet rules have altered considerably during the passing years on a number of points. The Council of Europe Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (Convention 108) was adopted in 1981 and was applicable to all data processing operations by both private and public sector, including data processing by the judiciary and law enforcement authorities. The Convention 108, in the modernized and updated in 2018 version, is still today the only binding international treaty in this field. Subsequently, in the beginning of the 1990s, aiming to harmonize data protection across Europe, the EU adopted Directive 95/46/EC, leaving its implementation to the Member States through national legislation [4]. Since its adoption in 1995, the DPD had been the main legislative instrument regarding personal data privacy in the EU, but due to the margin of discretion left to Member States, it was adopted differently, not achieving complete harmonization. As a result different data protection rules were enacted among the Member States and definitions and provisions were interpreted in a different manner. However, the new legal text was introduced in the form of a regulation. Contrary to a directive, a regulation is generally and directly applicable to the EU Member States, thus leading to a greater level of harmonization. It immediately becomes part of the national legal systems and not only its legal effect does not depend on national laws, but also overrides the contrary ones [9]. A regulation replacing the directive indicates, *prima facie*, that the previously existing issues of harmonization whenever personal data are being collected and processed, will be eliminated, establishing in this way a turning point in EU data protection [10].

Following the enactment in April 2016 and a two-year transition period, GDPR became applicable on 25 May 2018. The Regulation's foundations lay on the notion of an informed data subject, agreeing in a freely given, specific, informed and

unambiguous manner to the process of his or her personal data, establishing thus, an environment of legal certainty, from which all Europeans may benefit [11].

III. HR MANAGEMENT AS A KEY SOCIAL PRACTICE

As HR operations are evolving as a whole and their position varies between different entities, a universal definition for HR management (HRM) is still a work in progress. A general term will refer to HRM as the strategic approach to the effective management of organization workers, designed to maximize employee performance in service of an employer's strategic objectives. According to Becker and Gerhart [12], the new interest in HR as a strategic lever can have a vital effect on the economy of a business, however intends to focus more towards value creation. Following HR in this new context, many authors state that the HR department plays an active contribution to the achievement of the strategic objectives of a business [13].

It is expressed daringly in most corporate annual reports that the employees are the greater asset of a business and that the HR department plays a critical part in the business's growth [14]. Its duties are more than the management of the enrollment season or the processing of the payroll; on the contrary it contributes to the advancement of the strategy of a business while safeguarding that employees working with and for the business are the best available.

According to Ruth [15], a competent way of functioning in the HR department contributes to the fulfillment of the business needs through the managing of the most beneficial resources-its employees.

Accurate and trustworthy employee data could bring added value to a business, seeing that employees create a competitive advantage and constitute a strategic asset worth investing for. Indeed, in a 2016 report from Deloitte focused on global human capital trends, it is stated that almost 44% use employee data for business performance predictions. This represents a remarkable 52% increase compared to 2015 reports [16]. Although the employers tend to take advantage of personal data as they consider that their analysis improves the performance of their business, it is highly likely that the employees' well-being will be affected in case they realize a violation of their privacy. Undoubtedly a necessary prerequisite is the employee's satisfaction for the increase of productivity and efficiency of a business.

An HR department, as any other entity processing personal data, is subjected to the data protection legal regime due to the fact that in its daily routine deals with sensitive data, constituting high risk for their protection. Consequently, compliance with more obligations under the GDPR should be a high priority. An effective guide towards this effort should be the Article 29 Working Party's guidelines that were also endorsed by the European Data Protection Board in 2018 and specifically the 'guidelines on consent WP259' [17], the 'guidelines on personal data breach notification WP250' [18], the 'guidelines on Data Protection Impact Assessment (DPIA) WP248' [19] and the 'guidelines on Data Protection Officers (DPO) WP243' [20].

IV. HRM IN SCHOOLS

The great significance of HRM towards influencing employees' ability, motivation and opportunities to perform has been widely recognized [21] along with the advancement of employee commitment and performance that has been attested by numerous studies [22]. In spite of this admission, it is only recently that HR has been endorsed as key factor in raising schools' performance as well [23]. While the necessity for schools to implement HRM is increasingly acknowledged, HRM is still relatively ill-developed in the educational sector and it appears to be hard to be implemented in a systematic and effective way.

A well organized and efficient HR department could have a profound impact on schools and on the way they deliver their services to students [24]. HR while motivating and encouraging teachers, is capable of enhancing students' performance [25]. To begin with, since teachers' role in student achievements is critical [26], a school's accomplishments rely highly on the sufficiency and effort teachers show during the performance of their duties and HR department can be seen as a motivating factor contributing to the increase of teachers' motivation to fulfil their schools' goals. This goal can only be achieved if particularly the HR department ensures high standards for personal data protection so that the working staff could feel safe and perform its duties without any distractions. Moreover, as schools are considered the doorway to the modern societies and consequently the teachers can be a role model for the youngsters, it is evident that HR departments manage even highly personal data referring to their employees (e.g. copies of their criminal records). These kinds of data are sensitive, fact that leads to higher risk during their processing and consequently even more obligations under the GDPR.

In the educational field the 'product' of schools is education and future success of children, which in their turn contribute to the well-being of the society. It is widely accepted that a student's accomplishments depend to a great extent on their teachers' practices and effectiveness. Given the significance of this cause, the need to reinforce the workforce in the field of education aiming to the best possible outcomes for children, is pressing. Every school requires its working staff to attain its educational objectives and ambitions. Thus, the establishment of a committed and devoted HR department has become over the years a demanding requirement. Teachers and staff after their selections should be subjected to a fine structured orientation program guided by the HR department, in order to fully understand the school's objectives and goals and the HR department by its side should make imperative not to neglect the staff's needs and to secure a healthy working environment, respecting their personal data and complying with the current changes of the legal framework [27].

Unfortunately no significant literature review regarding the protection of personal data during the HR operations in schools can be found and little empirical attention is paid to the ways the HR department affects the advancement of the educational system. Nevertheless due to their considerable influence that was the subject of our inquiry, undoubtedly

more effort and research should be conducted in this area in the near future.

V. HRM AND DATA PROTECTION RELATED ISSUES

Before GDPR was introduced in our lives schools were facing common HR problems with other business entities. Indicatively:

- Omebe [28], addressing the issues and challenges HRM in education generally faces, emphasized on the rapid growth of technology and the inevitable processing of personal data. 'What should be the ethics code of using employee data in the age of facial recognition software?' a critical observer might ask. Undoubtedly questions regarding privacy and the protection of personal data arise. Threats generating are handled with under the fundamental principles relating to processing of personal data (article 5) namely: lawfulness, fairness and transparency; purpose limitation, data minimization, accuracy, storage limitation, integrity and confidentiality; and accountability.
- Additionally, HR departments in schools before the GDPR used to store huge amount of personal data (including sensitive data) of dismissed applicants or working staff, making it difficult to differentiate snake oil from the ones truly valuable. Although limitation of data storage was also foreseen in the DPD, without a binding Regulation and the fear of violating fundamental principles or high fines and penalties, HR departments were asking for too much information irrelevant or sensitive, leading to an unproductive process of recruitment. 'Purpose limitation' principle (article 5 (b)) along with the 'Storage limitation' principle, which is even more reinforced in the GDPR (article 5 (e)) than it was in the DPD, are the main factors deterring the repeat of the previous situation and promoting privacy and the protection of personal data.
- Furthermore the lack of respect for the collected personal data, by means of the gathering of all the data in one server, with unlimited access to anyone interested, without any authorization rules and storage security in decentralized spots, could consist a groundbreaking reason for employees' dissatisfaction due to data protection security issues, leading to bad performance at work or deficient commitment.
- Moreover, due to the previously existing issues of harmonization among Member States, keeping up and staying compliant with changing national laws was a struggle for the HR department. Now that the legal text was introduced in the form of a regulation, some issues that emerged in the past may be dealt with more effectively, since a regulation, contrary to a directive, is generally and directly applicable to the EU Member States, thus leading to a greater level of harmonization.
- Finally pressing data protection-threatening issues derive from the advancement of social media, mobile devices, wearables and the rise of artificial intelligence technology. Workplaces were profoundly affected making

it possible for HR departments to monitor telephone or internet use, violating personal data protection and often leading employees to bring a lawsuit.

The advancement of technology, however necessary, may blur the line between work and private life and pose threats to the protection of personal data. Data protection related issues in the workplace have gradually increased, especially constituting safety in the workplace even more complex. It is, thus, critical for HR departments in schools to have a profound understanding of the personal data protection issues that may arise, along with boundaries and limits.

VI. ALTERATIONS IN HRM IN SCHOOLS AFTER THE GDPR

Recital 4 of the GDPR states that the data subject's right and this includes employees, to the protection of personal data 'must be considered in relation to its function in society and be balanced against other fundamental rights, in accordance with the principle of proportionality'. HR departments in the educational field are definitely affected by the GDPR as the adoption of an operational system more respectful to the personal data collected will be a necessity. The main areas that influence their operations on their daily business in order to achieve GDPR compliance are namely:

- 1) *Required consent in the workplace:* As a principle, the GDPR introduces the need for 'specific, informed and unambiguous' consent (article 4) of a data subject for the processing of his/her data [29]. Therefore, it is highly likely that any consent already gained from staff to hold their data will have to be regained, to minimize uncertainty regarding the data collected. However, referring to all workers, in the Opinion 2/2017, the Article 29 Working Party underlines the fact that consent cannot be a legitimate legal basis for data processing in the employment context due to the nature of the labor relationship that barely allows workers to freely give, refuse or revoke consent [30]. Consent is not a uniform phenomenon and free consent may be questionable in cases of subordination, meaning where there is a significant economic or other imbalance between the controller and the data subject providing consent [31]. The Article 29 Working Party evaluated the crucial role consent plays as a legal basis for processing also employment data [32].
- 2) *Data Cannot Be Stored Indefinitely:* The principle of storage limitation is much more enhanced in the GDPR than it was in the DPD. The GDPR, in its article 5.e 'storage limitation' specifically allows for data subjects identification only for the time period for which the personal data are processed. For that reason not only personal data of unsuccessful job applicants should not be stored after the end of the recruitment procedure, unless the data subject has given his explicit consent, but also only limited data of employees who left should be kept in personnel files. Moreover the 'storage limitation principle' should be read under the 'right to be forgotten' awarding data subjects the right to erasure of personal data even sooner than the maximum retention period, a right which

is critical in the education field.

- 3) *Data Can Only Be Used for the Intended Purpose:* The principle of purpose limitation plays a decisive role in HR operations in schools. As stated in art.5.b 'personal data shall be collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes' ('Purpose limitation'). As a result employees will have to be informed how their personal data will be used. This principle may give a hard time to HR departments in schools that used to take advantage of a large pool of freelance staff, as now they will be precluded from the storage of personal details without permission.
- 4) *Data Should Be Encrypted:* To secure compliance with the GDPR rules all personal data collected by the HR department in schools will have to fulfill security measures. Any kind of sensitive personal data needs to be handled carefully, and one of the most efficient ways is the encryption of the data. Nevertheless it is of great significance that data transmissions including emails, are encrypted, in order to prevent any potential cyber-attack [33].
- 5) *Data subject rights, including the right to be forgotten:* Article 17 of the GDPR dealing with the 'right to erasure (right to be forgotten),' is likely to be one of the most controversial provisions of the Regulation, affecting also at a great extent HR departments in schools. Although this right presented in the GDPR context was aiming to depict modernization of the European data protection rules, this right actually pre-existed in Article 12 in the provision on the right of access of DPD [34]. A closer look shows that the right to be forgotten is in fact more of a detailed elaboration of the right of erasure. A research conducted by data security company Clearswift [35] has shown that 75% of employees generally are likely to exercise their right to be forgotten. The IAPP-EY Annual Privacy Governance Report 2017 revealed that the right to be forgotten (right to erasure) is admitted to be the second most difficult GDPR obligation in practice [36]. This right could mean for the HR departments in schools work overload when reviewing employee contracts or having to deal with employees' requests of the right. An effective and compliant with the GDPR HR department is capable of facilitating the school to decrease every problem connected with resistance to changes. Moreover professionals working in HR in schools, an area where even nowadays the existence of such a specific department lacks, despite its critical role, are in need of more guidance and specific details regarding the Regulation; some requirements lack clarity and create confusion.

VII. CASE STUDIES

In order to see at first-hand how GDPR was received by the HR departments operating in the educational field, the progress of its implementation and to confirm critical issues, a use case analysis was carried out. The research was only

indicative; five schools in three EU member states were reached out: Greece, Portugal and Poland. Its findings are based on data from their HR departments and it should be duly noted that all of them gave their consent to the publication of their answers. The broad objective of the research was to gain insights in HRM in the field of schools regarding preparatory steps taken to comply with the GDPR and identify possible advantages and disadvantages noticed from the daily practice after the GDPR became applicable.

The schools that participated in the research were chosen due to their extroversion and their keen interest in constant innovations and improvements in the field of education. This is effectively confirmed by the fact that all the participating schools actively engage in European programs, like Erasmus+ KAY2, that focus on improving the education system and the related policies in Europe. The questions that they were asked to answer were carefully selected in order to gain a better knowledge from the inside regarding the types of personal data collected and ways to protect them, possible preparations in case of a breach or other implications and to identify their general opinion regarding the swiping changes the GDPR brought to their daily practices.

The list of the participant schools is summarized at Table I.

TABLE I
LIST OF PARTICIPANT SCHOOLS IN THE CONDUCTED RESEARCH ACTIVITY

Identifier	Country, City	Education Level
1	Greece, Athens	Secondary
2	Greece, Katerini	Secondary
3	Portugal, Lisbon	Primary
4	Portugal, Madeira	Secondary
5	Poland, Lukow	Secondary

As we can observe from the questionnaire presented in the Table II, the majority of the schools that participated in the research had reviewed all of their data bases or some of them in order to be compliant with transparency requirements. However only one of them admitted to have fully informed all the people involved in the institution regarding the GDPR and their responsibilities and rights, while one of them claimed that the lack of action by its side was due to absence of adequate information on the subject. It is worth mentioning that two schools are dealing with data requiring special treatment, including sensitive pupils' data or parental data, whereas the rest of the schools only deal with the absolutely necessary personal data.

Regarding the risk of possible data breach, data minimization principle could be considered a way to deal with it as stated by school representatives. One of them planned to achieve protection from a possible data breach through a system of signed consent authorizations, a method quite questionable and inadequate for breaches outside of the school's environment. It is though remarkable the fact that two of the participants admitted to not having a clear action plan on the critical issue of personal data breach or to being adequately informed about it, regardless of the high fines imposed in case of data breach.

4 out of 5 schools acknowledged the significance of the

GDPR for personal data protection along with the limitation of useless information collected, with only one them considering the GDPR as the cause of mess and disorganization. Although all of them seemed skeptical regarding the possible cost of compliance with the GDPR and the amount of work to be done, they admitted that the implications during the first months of implementation were minor (e.g. too many informative emails sent) comparing to the benefits of the Regulation. Nonetheless, it is no surprise that only two of the participating schools took some preparatory measures before the 25th of May 2018, such as preparatory meetings with the staff, recruitment of a GDPR coordinator and review of the personal data of the platforms used.

Although the majority of participating schools appreciate the decisive importance of the Regulation, sadly there is still a lot of skepticism regarding the way of applying it in their daily operations, claiming the lack of information in advance, was also the cause of the absence of preparations before the Regulation was implemented.

VIII. SOLUTIONS TO THE EMERGING PROBLEMS

HR departments operating in schools handle data in all shapes and sizes, deriving from many systems and sources, such as emails and documents. Therefore, the risk of continuing to work in old fashioned ways is way too high.

- To address to the issue of required consent at work, personal staff data that HR department processes are covered by article 6(1)(b) 'Contract'. In case these data are used outside of their school performance and their contact obligations e.g. for marketing purposes, then consent must be assured, to establish that data would be used only for the intended purpose. A full review and audit of all HR-related school policies, manuals and procedures needs to be completed, in order to reassure compliance with and avoid gaps in relation to the GDPR.
- The limitation of the number of people working in the HR department in schools with access to the personal data under the use of strong authentication and access control could constitute an extra layer of data security. Furthermore in case of external access, where employers might sub-contract the process procedure of data, meticulous selection of the processor should be made so as to ensure the highest level of conformity to the new rules. Moreover, a designated Data Protection Officer (DPO) (article 37), will take responsibility for the compliance to all data protection requirements. Although the GDPR requires the appointment of a DPO for all public bodies (including state-run schools), private schools too should examine appointing one, responsible for the monitoring of the school's data processing practices, due to the fact that their core activities involve 'regular and systematic monitoring of data subjects on large scale'.
- Under the right of the data subject to gain access to information concerning him, the HR department even in schools, could be overloaded with access requests, deepening the logistical implications. To encounter the

'storage limitation principle' that should be read under the 'right to be forgotten' a useful approach could be the development of a system in collaboration with the IT department that will allow data subjects to gain the information requested online conveniently. A relevant policy and the mandatory software should be in place, along with all resources available so that a duly reply could be delivered within the prescribed 30 days. Formation of comprehensive policies compliant with legal requirements and protective of the employees' legitimate interests, along with guidelines for proper use of social media and internet should be adopted.

- Formation of a data breach response plan through a clear and structured process that will allow notification of a breach to the relevant authority within 72 hours will be a necessity. Continuous review of policies and procedures to ensure compliance with the rapid changing laws and requirements, in order to minimize school's vulnerability to risks is fundamental. Training of the employees under the guidance of the HR departments in schools should focus and be relevant to day-to-day practices, in order to secure the updated knowledge of the staff regarding both security implications of their actions and rules about the protection of personal data and privacy.
- In order to ensure that all personal data would be encrypted, all the implemented policies should consider the data protection by design and by default principle (article 25) along with the Data Protection Impact Assessment (article 35), through a dynamic implementation of technical and organizational privacy protection procedures, including data-minimizing mechanisms [37]. A DPIA is required 'when a type of processing in particular using new technologies or a profiling operation or processing on a large scale are likely to result in a high risk to the rights and freedoms of natural persons.' The d.pia. lab of the Vrije Universiteit of Brussel, issued the No.1/2017 Policy Brief in an attempt to draft a best practice for a generic type of impact assessment, really proven to be a useful tool for a better understanding of this legal requirement, for policy-makers at the EU and Member State level, but also for counterparts elsewhere in the world [38].

IX. CONCLUSIONS

The purpose of this paper was to highlight the impact of the GDPR on HR operations that operate specifically in schools and focus on their decisive role and their significant contribution to the proper functioning of the education system

through their methodical and harmonious activities. The meticulous and reliable work of HR departments in schools, while respecting the protection of personal data of all employees and complying with the rules of the Regulation, creates a sense of security in the school environment. Thus the teaching staff can work unhindered towards the advancement of the educational system, without the dissatisfaction and the potential conflicts with the administration, in case of negligent management of their personal data. The introduction of the GDPR into the day-to-day operations of HR has undoubtedly become the cause for many changes not only organizational, but also to the ways personal data were being handled. This has been effectively demonstrated at the findings of the use case analysis conducted in the context of this work.

By virtue of the crucial role that HR departments in schools play in the performance of its employees, teachers, and consequently in the students' outcomes, undoubtedly future research should be done in many more schools, carried out in different time periods in order to see if the GDPR continues to be included in their daily operations. As no extensive research has been made regarding the role of HR in schools after the introduction of the GDPR, this paper could be used as a reference point.

GDPR should not be encountered as a fear factor or as a means to impose sanctions, but as a true challenge to accept the changes embrace the new secure for all citizens future. The significance of the GDPR speaks for itself and the extensive importance of compliance must be acknowledged, in spite of the economic and practical burdens. HR departments in schools should focus on the potential of important benefits and the reassurance of a high level of protection of personal data, leading in turn to the welfare of the society universally. It is of utmost importance to adopt the proposed solutions to secure the best possible results, along with finding new, more flexible ones. Only time will tell if the final result will be a revolution generating lasting improvements.

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APPENDIX

A questionnaire comprising of seven questions concerning issues relevant to GDPR, has been given to the HR managers of these schools in June 2018. The responds to the questionnaires are offered at Table II.

TABLE II
DETAILED RESPONSES OF THE SCHOOLS TAKING PART IN THE RESEARCH

Questions	School No.1	School No.2	School No.3	School No.4	School No.5
Did you review your data bases according to the transparency requirements?	Some of them.	Yes.	No, I do not have enough information.	Yes, all data bases were reviewed. All people involved in our institution were fully informed about the GDPR and the processing and monitoring, whenever needed, of their personal data.	Not at all.
What types of data do you collect and	Names and telephone numbers for school	Pupil's data (general description, medical, marks,	Personal data, name, surname, ID,	All kind of data.	Personal data, name, surname,

Questions	School No.1	School No.2	School No.3	School No.4	School No.5
store?	programs.	awards, diplomas etc). Parent's data (address, occupation). Staff data (address, salary, medical, family). Proportionality.	Passport number, date of birth, address, telephone number, marks.		ID, Passport number, date of birth, address, telephone number, marks. I do not have a plan.
How do you plan to deal with a possible data breach and all changes related?	Data minimization.		I do not have a plan. I do not have enough information.	Throughout signed authorizations we tried to reach all type of situations which may occur in our institution so that we may avoid any possible data breach without the person's consent. To preserve one's personal privacy.	I do not have a plan.
Please identify potential benefits as a result of GDPR.	Less intervention in our lives, non-discrimination, more privacy.	-Less fake news. -More responsible information. -Less lost employee's time.	Decrease of random and useless information.		Lots of mess only.
Please identify possible cost of compliance to GDPR.	More work and more attention to the data we use and store. We need to ask for consent from each individual and this requires more time and effort.	-Legal support -Insurance. -Staff in service training. -Pupil's and parent's information.	I have no idea, but a lot I think.	Review of software.	I have no idea, but a lot generally.
Did you come up with any implications during the first month of adoption?	No.	Lack of awareness.	Too many emails informing about the implications on the new law.	Everything occurred as expected.	Too many emails.
Describe in brief your operations before and after the 25th of May. (Preparatory steps before the 25th of May, possible new mode of operations after adjusting to GDPR.)	Not specific steps or preparation.	-Cooperation with Insurance and Law experts. -Design of a staff training scheme. -Information campaign of all relevant school stakeholders.	None at all.	Preparatory steps: Preparatory meetings organized by the local educational organs; Preparatory meetings organized by our institution with the main departments; Finding a GDPR coordinator Reviewing the data from all platforms and other associated services and taking the right measures to avoid any data breach; Reviewing all important documents and including items for signed authorizations; After preparing everything in advance everything is clearly adapted to GDPR.	No preparations, but just one 2 hours online course.

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