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Sent by email to privacy@ibo.org

Your reference	Our reference	Date
	20/03087-14	07.08.2020

Advance notification of order to rectify unfairly processed and incorrect personal data - International Baccalaureate Organization

Background

On 20 July 2020, the Norwegian Data Protection Authority ("NO DPA", "we") ordered the International Baccalaureate Organization ("IBO", "you") to provide information regarding the International Baccalaureate ("IB") May 2020 awarding model and grading system. Specifically, we asked how the model complies with the General Data Protection Regulation ("GDPR"). [1] We received your reply on 31 July 2020.

The information you provided has not mitigated our concerns regarding the fairness of the processing, the transparency towards IB students nor the correctness of the personal data processed. We are therefore notifying you of our intent to make the decision outlined below, which includes an order for you to redo the awarding of final grades. The purpose of an advance notification is to allow for contradiction. In other words, this is not a final decision, but rather a draft decision. Before taking a final decision, we will take into account your views, which need to be submitted within the deadline specified below.

Advance notification

In line with the Norwegian Public Administration Act Section 16, we hereby provide advance notification of our intent to make the following decision:

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[1] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

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1. *The IBO shall hereinafter refrain from using so-called "school context" and "historical data" in awarding grades to IB students, as this is in violation of the fairness principle in Article 5(1)(a) GDPR and leads to the processing of incorrect personal data in violation of Article 5(1)(d) GDPR.*

2. *Where so-called "school context" and "historical data" have been used in awarding grades to IB-students, the IBO shall rectify those grades as soon as possible and at least within [three weeks of the date of the final decision], taking utmost account of the fairness, transparency, and accuracy principles in Article 5(1)(a) and (d).*

Although we have chosen to focus our investigation on the use of "school context" and "historical data" in the awarding of grades, we are aware that members of the public, including statisticians and other experts, have raised additional issues regarding the model. The fact that such issues have fallen outside the scope of our investigation does not mean that those issues should not be addressed. The IBO needs to assure itself that all relevant concerns are mitigated and that the model is fair, transparent and accurate in all regards.

The NO DPA is the supervisory authority established in line with Article 51(1) GDPR to monitor the application of the GDPR on the territory of the Kingdom of Norway. This follows from the Norwegian Personal Data Act Section 20. We have the powers to order you to bring the processing operations in question into compliance with the GDPR pursuant to Article 58(2)(d) GDPR.

Facts of the case

Due to the ongoing pandemic, the IBO decided to revise its awarding model for IB students graduating in 2020. The new awarding model has created controversy and attracted media attention in Norway and abroad. In addition, the NO DPA has received several inquiries concerning this issue.

The concerned students have claimed that the grades do not reflect their academic achievements as they have received lower grades than they reasonably anticipated. For example, the NO DPA was contacted regarding a student who consistently received the grade 7 on all coursework and as the predicted grade in a particular subject, but who received a lower final grade without any explanation. Several similar examples have been highlighted by the media, and in some of which the discrepancy between anticipated and actual grades has been large.

We understand that normally, final exams would account for the majority of IB students' final grades. However, due to the pandemic, exams were cancelled this spring. As a result and to compensate for this, the IBO has devised an awarding model building on the following factors:

- Student coursework
- Teacher-delivered predicted grades

- School context

As for the latter factor, IBO has provided the following explanation:

> *For each subject in each school, a unique factor was created based on historical data, and the same factor was then applied to every student in a particular school for that subject/option/level. This factor used historical data to model the accuracy of predicted grades as well as a school's performance in exams and coursework.*

Although we ordered the IBO to disclose how the factors are weighted in the model and how the calculation is carried out, the IBO has withheld that information.

The IBO has, on the other hand, pointed at several measures which you believe ensure compliance with the GDPR, including the following:

- The awarding model was subject to rigorous testing and analysis.
- The awarding model was submitted to Ofqual – the UK Regulator of Qualifications, both prior to its actual use and to the issue of results.
- Examiners are skilled and trained, and their marking is subject to checks.
- The IBO took great care in setting grade boundaries to make sure that the effects of the current COVID-19 pandemic did not result in a lower average grade.
- Subsequent to the setting of grade boundaries, the IBO performed a review of school outcomes to identify any clear anomalies at a school level.
- There are appeal and review mechanisms in place.

It appears to us that Ofqual has launched an investigation into the IB results of 2020.[2]

Relevant GDPR requirements

Profiling

Profiling is defined in Article 4(4) GDPR as

> *(…) any form of automated processing of personal data consisting of the use of personal data to evaluate certain personal aspects relating to a natural person, in particular to analyse or predict aspects concerning that natural person's performance at work, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements*

Fairness

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[2] The Telegraph, *Ofqual steps in as thousands of students miss out on expected IB Diploma grades*, 12 July 2020, available at https://www.telegraph.co.uk/news/2020/07/12/ofqual-steps-thousands-students-miss-expected-ib-diploma-grades/, last accessed 5 August 2020.

Pursuant to Article 5(1)(a) GDPR, personal data must be processed fairly.

Recitals 39 and 60 highlight the importance of providing sufficient information in order for the processing to be fair. Recital 71 states in relation to fairness and profiling that personal data should be secured in a manner that takes account of the potential risks involved for the interests and rights of the data subject and that prevents, *inter alia*, discriminatory effects. Recital 75 states that risk to natural persons' rights and freedoms can arise e.g. where the processing leads to discrimination, financial loss or significant economic or social disadvantage, or where personal aspects are evaluated.

The European Data Protection Board ("EDPB") has referenced the fairness principle in several of its guidelines issued in accordance with Article 70(1)(e). In the EDPB Guidelines on data protection by design and default, the EDPB elaborated on key elements of the fairness principle, including:

> *(…)*
> - *Expectation – Processing should correspond with data subjects' expectations.*
> - *Non-discrimination – The controller shall not discriminate against data subjects.*
>   *(…)*
> - *Power balance – Asymmetric power balances shall be avoided or mitigated when possible. Controllers should not transfer the risks of the enterprise to the data subjects.*
>   *(…)*
> - *Ethical – The controller should see the processing's wider impact on individuals' rights and dignity.*
>   *(…)*
> - *Fair algorithms – Information shall be provided to data subjects about processing of personal data based on algorithms that analyse or make predictions about them, such as work performance, economic situation, health, personal preferences, reliability or behaviour, location or movements.*[3]

In its guidelines on contractual necessity, the EDPB made a general statement on fairness, emphasising that the principle of fairness includes, *inter alia*,

> *(…) recognising the reasonable expectations of the data subjects, considering possible adverse consequences processing may have on them, and having regard to the relationship and potential effects of imbalance between them and the controller.*[4]

In the Article 29 Working Party Guidelines on profiling, which have been endorsed by the EDPB, the Article 29 Working Party stated that

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[3] European Data Protection Board: *Guidelines 4/2019 on Article 25 Data Protection by Design and by Default*, adopted on 13 November 2019, para. 65.
[4] European Data Protection Board: *Guidelines 2/2019 on the processing of personal data under Article 6(1)(b) GDPR in the context of the provision of online services to data subjects*, version 2.0, adopted 8 October 2019, para. 12.

(p)rofiling may be unfair and create discrimination, for example by denying people access to employment opportunities, credit or insurance, or targeting them with excessively risky or costly financial products.[5]

The IBO has stated that it understands fairness as

(…) handling personal data in ways that people would reasonably expect and not in ways that have unjustified adverse effects on them.

The NO DPA also considers that these are two of the elements of the fairness principle, in addition to the other elements mentioned above.

Transparency

Pursuant to Article 5(1)(a) GDPR, personal data must be processed in a transparent manner.

Recitals 39 and 60 elaborates on what transparency entails. Recital 60 states that

(t)he controller should provide the data subject with any further information necessary to ensure fair and transparent processing taking into account the specific circumstances and context in which the personal data are processed.

The Article 29 Working Party Guidelines on transparency, which have been endorsed by the EDPB, highlight that as a matter of fairness and transparency, data subjects should not be taken by surprise at a later point about the ways in which their personal data have been used. [6]

Transparency is essential to foster trust in the processing, and as a means for data subjects to assess the compliance of the processing with the GDPR.

Thus, the transparency obligation is not limited to provide the information listed in Article 12–15 GDPR. Rather, a case-by-case assessment is necessary to ensure that data subjects receive all information necessary and appropriate, taking into account the specific circumstances and context, and with due regard to the fairness principle.

Accuracy

Article 5(1)(d) GDPR states that personal data must be accurate and that personal data which are inaccurate, having regard to the purposes for which they are processed, must be erased or rectified without delay. In other words, in assessing whether personal data are inaccurate, the purposes for which they are processed must be taken into consideration.

In relation to the accuracy principle and profiling, Recital 71 states that the controller should

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[5] Article 29 Data Protection Working Party: *Guidelines on Automated individual decision-making and Profiling for the purposes of Regulation 2016/679*, revised version, adopted 6 February 2018, p. 10.
[6] Article 29 Data Protection Working Party: *Guidelines on transparency under Regulation 2016/679*, revised version, adopted 11 April 2018, para. 10.

(…) use appropriate mathematical or statistical procedures for the profiling, implement technical and organisational measures appropriate to ensure, in particular, that factors which result in inaccuracies in personal data are corrected and the risk of errors is minimised (…)

The judgment of the Court of Justice of the European Union ("CJEU") in the Nowak case[7] confirms that the accuracy principle also applies to the assessment of students' academic work. The case concerned a student who requested access to his examination answers, as well as to the examiner's comments to those answers, as he considered that this information constituted personal data falling under the applicable data protection legislation. The court confirmed that this was indeed personal data and that the data subject could thus exercise his data protection rights in that regard. Moreover, the court explicitly recognised that the accuracy principle and the right to rectification applied to the examiner's comments.[8]

Albeit the CJEU assessed the case under the now repealed Data Protection Directive,[9] equivalent counterparts of the relevant provisions are also found in the GDPR, meaning that the Nowak case remains relevant under the current legislation.

Our assessment of the case

<u>Initial remarks</u>

We reiterate that we consider, as set out in our letter of 20 July 2020, that the GDPR applies pursuant to Article 3(1) GDPR, that the grades of IB students constitute personal data within the meaning of Article 4(1) GDPR, that the IBO is the controller for the processing of personal data in question within the meaning of Article 4(7) GDPR, and that the NO DPA has the competence to pursue this matter in line with the Personal Data Act Section 20 and Article 55(1) GDPR.

We have chosen to focus on the use of "school context" and "historical data" in awarding grades to IB students. Please note that when we refer to awarding grades, we are not referring to the setting of boundaries between grades, as we consider this to be a separate issue which will not be addressed here.

<u>Profiling</u>

We consider that the awarding of grades is a form of profiling in the sense of Article 4(4) GDPR, as grading is a process in which personal aspects (in this case the students' academic skills) are assessed.

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[7] Judgment of 20 December 2017, *Peter Nowak v Data Protection Commissioner*, C-434/16, EU:C:2017:994.
[8] See in particular paras. 49–57.
[9] Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.

<u>Fairness</u>

Reasonable expectations of the data subject

The IBO has stated that the awarding of grades corresponds with the students' reasonable expectations. We do not share this view.

Presumably, students would expect that a grade is awarded based on their demonstrable academic achievements and that the grade would reflect the work they have put in as well as the knowledge and skills they have attained. Even though exams were cancelled this year, we do not see how the current situation would alter their expectations in that regard.

This expectation is reasonable as grades will be used by educational institutions as a measurement of the individual student's academic level in the context of admissions to higher education. Potential employers will likely regard grades in the same way.

Through the use of "school context" and "historical data", the IBO has utilised information concerning how *other students* at the same school have performed historically to adjust the final grades. This means that the IBO expects students to foresee and accept that their grade is influenced by a factor completely outside their control, which does not have any connection to their demonstrable and individual academic achievements, and that relates to other people. This assumption is unjustified.

In any case, it should be clear from the current public outcry that students were taken by surprise of how school context was used in the grading.

Therefore, the processing is not in line with the reasonable expectations of the data subject.

Potential for discrimination

The school context will necessarily vary between schools. In practice, this would mean that regardless of whether the input factors of the model are weighted in the same way for all students in all schools, the actual impact of historical data may vary. The decisive element would be which school has been attended.

For example, if previous students at a school have performed well in a particular subject, it appears that a top student graduating this year would be less likely to see their grade in that subject drop (much) lower than their predicted and coursework grades. However, at a different school, previous students may not have performed as well. A top student at this school appears to be more likely to receive a (much) lower grade than their predicted and coursework grades, regardless of whether their achievements are comparable to the school/subject historical average.

Whether the historical data are of in the students' disfavour or biased, may depend on a multitude of factors, including

- how long the school has offered the IB
- the number of students admitted to the IB at the school in question
- whether there have been many staff changes
- whether the school is located in an area with a large proportion of disadvantaged students
- whether the school is located in an area with a large proportion of resourceful families

In addition, the IBO has stated that the model is adjusted to account for different time zones. This seems to imply that students are assessed differently depending on which part of the world they reside in.

The NO DPA considers that the name of the school or its geographical location is not a relevant element in awarding grades, as grades are a measurement of students' individual academic achievements, not habitual residence or choice of educational institution. In fact, we consider that this may have discriminatory effects as the model can potentially be of prejudice to certain socio-economic groups. Essentially, students from not-so-well-performing areas would be penalised just for going to school in that area, which is clearly unfair to them.

Undue adverse effects

When school context is part of the model, current students are assessed similarly to previous students at the same school under the assumption that they, *statistically* or *on average*, are similar. In practice, this comparison based on perceived likeness will to a certain extent confine students to a particular segment even though there will inevitably be differences between individual students.

Grades will inescapably have a significant impact on students' educational and professional life. Educational institutions and employers use grades as a means to differentiate between candidates, which in turn may result in students with lower grades being denied of opportunities. This denial of opportunities can have a range of consequences of considerable magnitude, including financially and in terms of dignity.

Considering the fact that assumptions regarding perceived likeness have had a considerable effect on grading, failing to properly take into account the differences in individual achievement, and with regard to the major consequences and denial of opportunities that this may entail, we consider that the processing has adversely affected students in an undue and unjustifiable manner.

Conclusion

The IBO has withheld information regarding which weight "school context" and "historical data" are given in the model. However, we do not consider the magnitude of the respective coefficients to be decisive, as those data should not have been used at all.

Based on previous experience, in practice, grades received on coursework and predicted grades may differ from the exam grades. It appears that following the cancellation of exams,

the IBO has had concerns that this years' students would then be assessed differently from those of previous years, however that may be unavoidable given the circumstances. In any case, for students receiving lower grades than what empirical evidence would suggest in the individual case, this is unfair to them.

Based on the above, we have reached the conclusion that the IBO has processed personal data in an unfair manner in violation of Article 5(1)(a) GDPR.

Transparency

As mentioned above, complying with the informational duties in Article 12–15 GDPR is not in all cases sufficient to discharge the duty to process data in a transparent manner. Instead, a case-by-case assessment of what information is necessary and appropriate should be undertaken, taking into account the context of the processing.

In this case, the context is the awarding of grades, which is something that can have a major impact on the rest of students' lives. Furthermore, the IBO's awarding of grades has been based on a profiling algorithm, the logic behind which is not publicly known and thus cannot be reviewed, audited or challenged by the public. In line with the fairness and transparency principles, additional transparency measures are clearly required and should have been implemented.

It appears to us that IB students worldwide are surprised about how their grades have been awarded, and that they have requested more concrete information on the awarding model as a result. Attempts have even been made to reverse engineer the algorithm. Despite this, the IBO has withheld the information in question.

On 20 July 2020, the NO DPA ordered the IBO to provide additional information on the model and the actual calculation of grades. The IBO failed to provide such information.

It remains unclear to us why it is so important for the IBO to keep secret a model which you consider to be fair and accurate. If the model really is without issue, surely it would not be problematic to disclose it to the public for it to scrutinise. In any case, IBO's concealment of details about the awarding model has been detrimental to our and the public's trust in both the IBO and the IB.

The NO DPA considers that by not providing more specific details on the awarding model to students, the IBO has violated the transparency principle of Article 5(1)(a) GDPR. As we find that you needs to rectify the grades awarded, the practical consequence of this conclusion is that for whatever new awarding model the IBO devises, you need to provide concrete details about the model and the weighting of factors therein, so as to adequately respond to students' legitimate need for information.

Accuracy

The purpose of grading is indisputably to provide a metric for reflecting the academic level of individual students. IB grades will in particular be used in college and university admissions to compare candidates, and they may also be used when applying for jobs.

By way of an analogy, the Norwegian Education Regulation[10] Section 3-14 explicitly recognises that final grades in the Norwegian public school system must reflect the academic competency of the individual student in relation to the defined competency aims. We understand that the IB is an equivalent alternative to the public upper secondary education in Norway, and as long as that remains the case, it is difficult to see that IB grades could measure something different than the grades in public upper secondary education.

Considering this purpose, grades only comply with the accuracy principle of the GDPR if they do in fact accurately reflect the actual academic level of the student in question.

Since the grades in question are in part based on "school context", they also take into account how other students have performed historically. Therefore, the grades are no longer a reflection of the student's own, documented academic achievements, but rather of the academic level they would attain if they are similar to the previous students in that subject/school, which may in fact not be the case. The assessment is skewed towards the achievements of other people.

Because the historical data *inter alia* consider the correlation between predicted grades and actual exam results, we understand that the model will try to account for this correlation. In other words, the grades are an attempt at a prediction of what the examination grade would or could be, rather than an assessment of the actual academic level based on demonstrated facts. In any case, it would not be possible to use statistical data to accurately predict what grade a student would have received on their exams.

Based on the above and taking into account that the purpose of the processing is to provide a metric for reflecting the actual academic level of individual students, the grades in question are not accurate in relation to the purpose for which they were processed.

Remedial measures

The IBO has, through its use of "school context" and "historical data" in awarding grades, violated the fairness and accuracy principles of Article 5(1)(a) and (d) GDPR, respectively. Therefore, the IBO must refrain from using such data in awarding grades in the future, to avoid further violation of the GDPR. See item 1 of the decision above.

Since the IBO has processed data in a way that is unfair, the IBO needs to carry out the processing anew in a way that respects the fairness principle. See item 2 of the decision above.

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[10] Forskrift av 23. juni 2006 nr. 724 (forskrift til opplæringslova)

Since the grades awarded by IBO this year constitute inaccurate personal data, those grades need to be rectified. See item 2 of the decision above.

The NO DPA reached the conclusion that the IBO has not processed personal data in a transparent manner within the meaning of Article 5(1)(a) GDPR. Therefore, it must take the appropriate steps to be transparent when carrying out the order contained in item 2 of the decision above.

In regards to item 2 of the decision above, it is not for the NO DPA to dictate how the new grading model should look like. Rather, this should be left to the discretion of IBO's professional educators and experts in the field. However, any model must ensure fairness, transparency and accuracy in the processing of personal data.

Process

If you have comments or remarks to this advance notification, you need to send them to tobias@datatilsynet.no by **Friday 14 August 2020 at 12 noon Oslo time (CEST)**. A final decision will then be taken.

Access to documents

Subject to the Norwegian Public Administration Act Section 18 and 19, you – as a party to this case – have the right to acquaint yourself with the documents in this case. As you have already been informed, correspondence with the NO DPA is subject to freedom of information requests under the Norwegian Freedom of Information Act.

Kind regards

Bjørn Erik Thon
Data Protection Commissioner

Tobias Judin
Head of International

This letter has electronic approval and is therefore not signed