# ABU DHABI GLOBAL MARKET

DATA SUBJECT RIGHTS: AUTOMATED INDIVIDUAL DECISION-MAKING, INCLUDING PROFILING

Introduction

Individuals should not be subjected to a decision which can lead to legal repercussions for the individual based exclusively on automated processing or profiling. The individual does not need to actively exercise this right. It is essentially an obligation placed on Controllers not to make such decisions in the manner described.
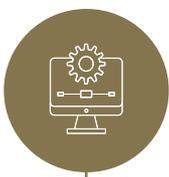
Automated Processing

Processing which is carried out solely by automated means with no human involvement.

Examples include:

- A fully automated system that decides whether to award a loan to an individual
- A fully automated recruitment aptitude test which uses pre-programmed algorithms and criteria

Profiling

Any automated processing that involves the use of personal data to assess certain aspects of an individual's life, such as their financial condition, health status, online behavior, or location.

Examples include:

- Automated decisions about credit limits, based on analysis of spending habits and location
- Targeted online advertising

Individuals when subject to automated decision making and profiling must be able to:

- Express their point of view
- Request for an explanation and if required challenge the decision
- Object to the automated processing and/or demand human intervention
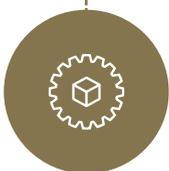
What does "solely automated" mean?

A decision-making process that is totally automated and excludes any human influence.

- A system may still be considered solely automated if a human inputs the data, but the decision-making is carried out by an automated system.
- Automated decision-making is not considered "solely automated" if someone reviews and interprets the result in a meaningful way before applying it to an individual.

General Guidance on automated decision making and profiling

Organisations should be prepared for additional considerations when processing personal data in a manner that could be considered automated.

It is important for reviewers to consider all input data, as well as other additional factors. The recommendation provided by the system must be weighed and interpreted.

It is essential that human reviewers are involved in checking the system's recommendation and that they do not "routinely" apply automated recommendations to individuals.

A reviewer's role must be active, and not just a symbolic/token gesture. It is vital that they have a "meaningful" influence on the decision, including the authority and the competence to overturn the recommendation.

Training

To ensure that an artificial intelligence system is not solely automated, training is of utmost importance, human reviewers should be trained to:

- Gain a better understanding of AI and its limitations

- Identify situations in which the system could be misleading or incorrect, and explain why

- Have an appropriate level of skepticism on AI's output and be aware of how often an AI system might be wrong

- Comprehend how the their skills and expertise could complement the system

- Have a meaningful explanation in scenarios where the AI output is rejected, with a clear escalation policy

Monitoring

- Having an effective risk monitoring system to analyze how often a human reviewer accepted or rejected the AI system's output, and why

- Developing capability to notify/flag in the risk monitoring reports when human reviewers are routinely agreeing with the AI system's outputs

- Ensuring controls are in place to manage risks within target levels with the ability to temporarily or permanently stop processing if there is a risk of contravention

Additional Risk Factors

Two additional major risk factors that could potentially lead to a system to being considered solely-automated are automation bias and lack of interpretability.

Automation bias

Artificial Intelligence models are based on data and mathematics, so people tend to believe they are objective and trust their output.

The bias describes how people routinely rely on computerised decision-support systems and cease to question the validity of the output – in essence, they stop using their own judgement. This is likely to result in the use of AI systems being unintentionally deemed "solely automated" by law.

How to address the risk

- Enhancing the effectiveness of the training and monitoring of human reviewers

- Ensuring that business owners, data scientists and oversight functions work together during the design phase in order to develop design requirements that support a meaningful human review from the outset

- Ensuring that human reviewers are involved in checking the system's recommendation or directly interacting with the individual whose information is being processed

- Ensuring to test and confirm any assumptions made in the design phase once the AI system is built and trained

Lack of interpretability

Human reviewers may find it difficult to interpret some types of AI systems, such as those using deep learning.

When AI system outputs and inputs are not easily understood, and alternative explanation tools are not available, humans may not be able to interpret the results of the AI output meaningfully. As a result, if the reviewer cannot perform meaningful reviews, they may just "accept" the recommendations of the system without expressing any judgement or challenge. This would mean that the decision was "solely automated".

How to address the risk

- Using methods like LIME (Local Interpretable Model-agnostic Explanations) which is a technique that approximates any machine learning model with a local, interpretable model to explain each individual prediction

- Providing a confidence score in statistical models alongside each output to help the human reviewer in their decision making – a relatively low confidence score would indicate to the human reviewer that they need to have more input in the final decision

- Evaluating the interpretation requirements during the design phase of the system, allowing for the development of explanation tools as part of the system if necessary

Benefits of profiling and automated decision-making

When carried out with the right processes and controls in place, profiling and automated decision-making can bring many benefits.

01 Leads to faster and more consistent decisions, especially when a large volume of data needs to be analysed fast and decisions need to be made soon

02 Enables adaptation of offers of goods and services as well as prices to align with individual consumer demand

03 Eliminates dependency on human intervention for highly repetitive tasks

04 Improves transparency and accuracy of administrative decision-making and new options for providing services

05 Permits more rapid analysis of risks and fraud

06 Reduces errors with regulatory or contractual implications, potentially helping in avoiding penalties for non-compliance

ⓘ You need to ensure that automated decision making and profiling complies with the data protection principles, data subject rights, and Controller/Processor obligations in the Data Protection Regulations 2021.