



ADVANCED ANALYTICS AND ARTIFICIAL INTELLIGENCE (AAAI)

EMPLOYEE CODE OF CONDUCT

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INTRODUCTION

Background and purpose

Strides in modern data science have triggered an ever-increasing development and deployment of Advanced Analytics and Artificial Intelligence (AAAI). NewBank was founded on such innovations.

NewBank's ever-innovating range of Fintech products and services continue to push the boundaries of what's possible and strives for continuous improvement to satisfy existing and entice potential customers.

Much of the success obtained to date is due to the emphasis placed on responsible AI/AAAI practices. In an industry that has been tainted with scandal and an overall lack of trust, NewBank has retained a reputation of transparency and trust and in-turn this positive reputation has become a key competitive advantage.

The financial services industry is one of heavy regulation. However, with the ever-changing dynamic AAAI ecosystem, what's legal is not necessarily optimal.

As employees working on the cutting edge of this technology, it is important that you embrace this attitude towards responsible and transparent AAAI. This document sets out the cornerstone principles that are placed at the heart of everything at NewBank.

The principles outlined in this code of conduct have been defined to align with NewBank's Core Values.

NewBank's Core Values – DIGNITY

- **D** – Duty to customers and employees
- **I** – Integrity always
- **G** – Gratitude for customers and employees
- **N** – Novelty and innovation
- **I** – Inclusion and diversity
- **T** – Transparency and trust
- **Y** – Yield societally preferred outcomes

Codes of Conduct - FAQ's

- *What is a code of conduct?*

Codes of conduct are statements that commit organizations to moral values and beliefs and define appropriate behavior for employees and professionals. This code acts as a central guide and reference for employees to support day-to-day decision-making.

- *Why is it required?*

Codes of conduct provide a clear guideline of expected behavior in the workplace that aligns with a company's vision, mission, values, and principles. In the dynamic and complex ecosystem that is the field of Artificial Intelligence, simply complying with regulation is often not sufficient. A code of conduct can add additional governance to bridge this gap and ensure fair and equitable practices are being maintained throughout the workplace.

- *Who is it for?*

This code of conduct applies to all NewBank employees working within the AAAI division as well as employees that interact in any way with the AAAI suite of products and services.

Non-Compliance with Code of Conduct

Each employee has an obligation to align themselves with the core values and principles outlined as per this code of conduct. Failure to do so or breaches in this code will lead to disciplinary actions and potential termination.

***AAAI:**

Advanced Analytics & Artificial Intelligence (AAAI) includes deep learning, machine learning, and other advanced data science methods, models, and systems, where they have an impact on AAAI subjects (customers, clients, employees, stakeholders, etc.), as well as the data used in these solutions.

1. EXECUTIVE SUMMARY

This AAAI code of conduct is defined using 5 cornerstone principles that align with NewBank's core values and serve to ensure NewBank and its employees uphold the highest moral and ethical standards.

Guiding ethical principles:

- **Explainability & Transparency**

Ensure transparency in the use of AAAI and provide appropriate explanations

- **Integrity of AAAI**

Adopt appropriate controls for the integrity, sourcing and sharing of AAAI and its associated data throughout the AAAI lifecycle

- **Fairness & Alignment to Human Rights**

Design and use AAAI that produces fair outcomes

- **Contestability & Human Empowerment**

Support the empowerment of all stakeholders through open lines of communication

- **Responsibility & Accountability**

Be responsible and accountable for AAAI

2. PRINCIPLE I: EXPLAINABILITY AND TRANSPARENCY

‘Ensure transparency in the use of AAAI and provide appropriate explanations’

NewBank ensures that all AAAI systems and related components have the ability to be understood, explained, and interpreted. Each component in the AAAI suite must meet this strict criterion before being launched to customers.

To ensure this criterion is being met, it is NewBank’s policy that for each individual decision made that has an impact on customers (for example, AI credit line calculator), an automated document is produced which explains the rationale for the decision taken. The goal is that end-users of AI can use these insights to understand the systems, suggest improvements, and identify potential problems (should they arise).

This high standard of explainability and transparency requires employees to:

- Thoroughly understand NewBank’s AAAI and the outputs they produce
- Perform a rigorous technology assessment (see below*) before implementing any new technology
- Favor algorithms that will be able to meet the above criterion
- Develop and use AAAI with inputs and outputs that are auditable at appropriate stages throughout its lifecycle
- Provide clear information and explanations appropriate to the audience, context, and purpose

***Technology Assessment:**

A form of research that examines short and long-term consequences (for example, societal, economic, ethical, legal) of the application of technology

3. PRINCIPLE 2: INTEGRITY OF AAAI

‘Adopt appropriate controls for the integrity, sourcing and sharing of AAAI and its associated data throughout the AAAI lifecycle’

With data at the heart of everything at NewBank, maintaining a big-data infrastructure that is secure, fit-for-purpose, efficient, and accurate is a top priority. It is important that AAAI systems are robust, secure, and safe throughout their entire lifecycle, so that, whether they are used normally, misused, or otherwise adversely affected, they continue to function properly and do not pose unreasonable safety risks.

Because NewBank’s AI and big data systems use information that is private/sensitive to customers, it is important to make sure that the system does not violate or infringe upon the right to privacy, and that private and sensitive data is well-protected.

To ensure this standard is maintained employees should:

- Review and adapt governance so that it meets evolving needs and has clear lines of accountability throughout the AAAI lifecycle
- Maintain robust and appropriate risk management throughout the AAAI lifecycle
- Respect and safeguard customer’s personal data and privacy rights (comply with GDPR - General Data Protection Regulation)
- Grant data access using the ‘principle of least privilege’ (see below*) to ensure customer’s data is secure and privacy is maintained
- Build data architectures that are fit for purpose and will remain fit-for-purpose into the future
- Set up periodic data quality checks to ensure the integrity of solutions

***‘Principle of Least Privilege’:**

The concept entails that all identities both people and non-people should be granted the least access necessary to perform their respective duties

4. PRINCIPLE 3: FAIRNESS & ALIGNMENT TO HUMAN RIGHTS

‘Design and use AAAI that produces fair outcomes’

Fairness is within the context and purpose of each of NewBank’s AAAI solutions and considers the impact on wider society. Before considering any technology, a technology assessment is conducted to ensure alignment in terms of fairness and human rights. Once a technology is selected for development, each decision point presents a new assessment to ensure the same principle is enforced. In order to help navigate these questions, NewBank encourages team members to evaluate solutions in terms of the 4 principles as defined by Beauchamp and Childress (1979):

1. Respect for Autonomy

At NewBank, ‘informed consent’ (see below*) is a priority and much effort is applied to avoid information overload and ensure that customers are aware of any opt-ins. For example, when collecting user data, NewBank ensures that customer knows that data is being gathered, the purpose for data is defined and assurances are made that data will keep securely and will not be sold to a third party.

2. Nonmaleficence: ‘first do no harm’

Any proposed solution must ensure it will cause no harm, including un-intended harm either societal, economic, ethical, legal, etc. For example, NewBank will always recommend the data-driven optimal solution for each individual customer and not the most lucrative.

3. Beneficence: ‘do as much good as you can’

Once confident a solution will do no harm, the next step is to ensure it can do as much good as it possibly can. For example, NewBank provides free financial/education resources with all products and services.

4. Justice: ‘distribute resources fairly’

NewBank always aims to understand and mitigate unfair bias in the development and use of AAAI. Employees should place great emphasis on responsible AI, identifying possible vulnerabilities, testing scenarios, and rectifying any potential issues.

***Informed Consent:**

Permission granted in full knowledge of the possible consequences

5. PRINCIPLE 4: CONTESTABILITY & HUMAN EMPOWERMENT

‘Support the empowerment of all stakeholders through open lines of communication ‘

NewBank encourages open lines of communication, from employees, customers, and all other stakeholders.

Empowering Customers:

NewBank has adopted measures that allow customers to challenge decisions made by NewBank’s AAAI systems and set in place processes that allow for effective human review, oversight, and control of AAAI decisions.

NewBank takes any and all of these queries seriously and uses them as an invaluable tool to improve the suite of products and services, the customer experience and build greater trust and transparency.

As employees, you are required to give due consideration to such queries.

Empowering Employees:

In the event that you have ethical or legal concerns, all team members have the authority and responsibility to speak up. Reporting a concern or asking a question protects both NewBank and you.

NewBank will promptly investigate any concerns and retaliation is strictly prohibited.

6. PRINCIPLE 5: RESPONSIBILITY & ACCOUNTABILITY

‘Be responsible and accountable for AAAI’

Each member of the NewBank team is accountable for the proper functioning of each AAAI system and for the respect for the defined principles and core values. It is the responsibility of NewBank employees to maintain the outlined ethical and moral standards while developing and implementing these state-of-the-art fintech solutions. With this in mind, employees are required to:

- Test and monitor each AAAI solution to ensure NewBank meets regulatory standards to comply with the law, but also, the higher ethical standards to comply with the core values of NewBank.
- Throughout the AAAI lifecycle, maintain policies that define the responsibilities of the individual roles and update them promptly as required.
- Perform due diligence before engaging with partners and vendors. NewBank enjoys many fruitful partnerships. Employees need to continue to thoroughly vet any potential partner to ensure they align with the defined core values.
- Provide resources and training, appropriate to each specific role, so that employees understand AAAI, NewBank’s AAAI suite, its benefits, associated risks, and obligations.

NewBank encourages inclusive participation in the development of AAAI throughout its lifecycle.

***AAAI Lifecycle:**

The AAAI lifecycle refers to all stages of the AAAI solution from inception to retirement and beyond. This includes design, development, implementation, life-cycle management etc.

7. CONCLUSION

Continuing to reside on the cutting edge of this technology will be of vital importance to NewBank's continued success. However, NewBank and its employees must not sacrifice ethics, morals, and core values in order to eke out additional performance. Instead, the objective function optimised at NewBank is one where solution performance and overall bottom line are not the key metrics. Instead, aim to deliver value to all customers while maintaining the highest ethical standards. This document should serve as a guiding light in all AAAI decision-making processes.

This code of conduct is a resource to guide employees in NewBank's vision.

'NewBank – Ethical Banking for Everyone, Everywhere, All the Time'

