

AI policy

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AI policy



This policy defines a framework for responsible, safe and efficient use and development of AI at Statistics Sweden.

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Background and purpose

This policy was developed in the spring of 2024, at a time when Statistics Sweden has started to implement AI (artificial intelligence) to assist with certain defined processes in statistical production. This involves machine learning models that are being developed and trained using Statistics Sweden data. Statistics Sweden also permits some use of generative AI, which is based on large language models trained outside Statistics Sweden.

The AI Regulation has just been adopted within the EU, and Statistics Sweden has joined an multi-year project funded by the EU to enhance AI capabilities together with other statistical authorities¹. Statistics Sweden is a driving force within the framework of eSam's national AI partnership² and is involved in a number of national partnerships with Örebro University and AI Sweden.

Statistics Sweden's use of AI is expected to increase, and this policy aims to provide guidance in order to maintain confidence in Statistics Sweden both externally and internally. The policy sets out an objective for Statistics Sweden's use of AI and includes a number of principles governing Statistics Sweden's use of AI in both statistical production and other activities.

Terminology

Statistics Sweden mainly uses AI based on machine learning, ML, which is a subfield of AI and can be described as follows³: "Machine learning aims to give computers the ability to learn and adapt to a task without being specifically programmed to do it. The learning itself involves combining available data with mathematical models so as to ultimately result in a model that is capable of drawing conclusions about new, unknown data not included during the actual training."

AI systems can be designed and optimised to provide effective support for a specific area. The term "narrow AI" is used for this application. In Swedish, the term "smal AI", which means narrow AI, has been established within eSam⁴. Proprietary models developed to perform specific coding or auditing tasks, for example, are examples of narrow AI at Statistics Sweden.

AI systems can also be designed to work in a number of contexts. The expression "general-purpose AI" is used to describe this. The Swedish language sometimes uses the term "generell AI" for the same thing, but eSam uses the term "bred AI" – broad AI – to make a clear distinction between this and what is known as superintelligence, which has not been developed as yet. Large language models developed by others that Statistics Sweden can use as they are or refine for uses more suited to Statistics Sweden are examples of broad AI.

¹ <https://www.insee.fr/en/information/8189291>

² <https://www.esamverka.se/vad-vi-gor/ai.html>

³ eSam report: "AI – Utvecklingsprocessen och data" (ES2024-01)

⁴ eSam report: "Samverkan kring tillämpad AI" (ES2022-03)

Goals for AI use at Statistics Sweden

We use AI to achieve Statistics Sweden's strategic goals, primarily to

- achieve an innovative, efficient and secure statistical production process where we have the ability to develop and manage AI models
- unlock employee potential in order to enhance skills and free up time with the assistance of AI.

Governing principles

Principle 1: We use AI responsibly

We use AI in a manner that maintains trust in Statistics Sweden by complying with regulations, central government values and ethical standards.

1a: Ethics, privacy and compliance

1b: Data quality and reliability

1c: Transparency and insight

Reasoning

We ensure that the data used to train and apply AI models is reliable and of high quality.

We make it clear when and how AI is used, and we document Statistics Sweden's AI models. Statistics Sweden is responsible for what is published externally with Statistics Sweden as the originator.

We wish to apply this principle in order to link together general aspects of AI that concern all organisations using AI. Ultimately, this principle is intended to protect Statistics Sweden's reputation both internally and externally. We can achieve this by being open about when we use AI, offering transparency as regards what data we process using AI (how, and for what purpose), and by adopting an ethical stance in terms of our role and duty.

This principle is reflected in the machine learning process⁵ and supported by the processes for approval of new data sources⁶ and approval of software⁷.

Implications

Trust in Statistics Sweden can be maintained even when we use AI to assist with production of statistics.

When we communicate with users, data providers, researchers or data processors, we aim to describe how AI has been used, for what purpose and with what data.

⁵ http://verksamhetsstod/sites/vstod/statprod/Sidor/SPS_OGP_C.aspx

⁶ http://verksamhetsstod/sites/vstod/statprod/Sidor/SPS_Process-1-3.aspx

⁷ https://inblick.scb.intra/Stod/it-miljo/programvaror_licenser/

Principle 2: We use AI in a secure manner

2a: Security and data protection

We maintain a high level of data protection by complying with the Statistics Sweden information security management system (SCB LIS)⁸ and conducting impact assessments relating to protection of personal data⁹.

2b: Risk-based approach

We maintain a risk-based approach throughout the lifecycle to ensure our own control and identify the appropriate level of monitoring for AI technology. Where we want to use AI technology, we perform risk analyses to assess the conditions and prerequisites for use. Our risk analyses are compliant with SCB LIS guidelines for risk analyses and must be updated regularly.

2c: Employee skills

Our risk-based work relies on our employees having sufficient AI skills and a good understanding of internally adopted steering documents in this respect.

Reasoning

With this principle, we highlight the fact that security and data protection are key to all use of AI. Technology is changing rapidly and cannot be regulated universally, and so we need to perform risk analyses that are time-limited and specific to each application with a view to safely unlocking the power of innovation and giving our employees access to powerful AI tools.

Implications

The level of risk can be adapted depending on where AI is to be deployed by performing risk assessments based on whether we will be using narrow or broad AI, and on whether the AI has been procured or is proprietary.

Following the machine learning process builds in risk management when developing proprietary AI models, and so the level of risk is minimised when we implement and manage AI in statistical production.

Procured AI undergoes risk assessment in connection with the software approval process. Its use is steered towards areas where there is least risk of harming trust in Statistics Sweden. What can be approved at one point in time may need to undergo another risk assessment at a later date due to changing circumstances in and around the use of AI.

With risks documented prior to testing and implementation, we can deploy custom control measures.

Skills development will be necessary for all employees wishing to use AI systems. Both their AI skills and awareness of how to conduct risk assessments need to be strengthened.

⁸ <https://inblick.scb.intra/Regler--styrning/organisation-och-styrning/styrdokument/informationssakerhet/>

⁹ <https://inblick.scb.intra/Regler--styrning/dataskyddsfordningen-gdpr/konsekvensbedomning-avseende-dataskydd/>

3a: Common principles and processes

Principle 3: We use AI efficiently

We operate in compliance with common principles and processes when developing our AI capabilities. This is particularly applicable to architecture principles and the machine learning process, approval of new software and innovation/generation of ideas. We use these processes to prepare AI issues horizontally.

3b: National and international cooperation

We collaborate and cooperate nationally and internationally in the field of AI so that we can benefit from what others are developing (such as methods, models, systems and support), contribute to developments and enhance our skills.

3c: Steering groups for the management objects

We use the steering groups for the management objects¹⁰ to prioritise new AI initiatives. Decisions are made there, too, before AI starts to be used in statistical production. The management objects are responsible for management and further development of Statistics Sweden's AI components. Decisions must indicate compliance with the principles of the policy and Statistics Sweden's processes and state which organisational functions have been consulted.

3d: Skills support

We are facilitating AI skills development by making internal and external training programmes available in a single location¹¹.

Reasoning

This principle indicates how we intend to address AI issues within the existing governance framework using existing processes. This is necessary so that we can ensure efficient use of AI. It is expensive to develop different solutions for the same task, and to manage a number of different solutions. The field of AI is developing rapidly, and we need to collaborate nationally and internationally and be able to reuse aspects that are being developed by others.

Implications

Maintaining a coordinated and interdisciplinary approach will make it easier for us to achieve the objectives defined for Statistics Sweden's use of AI. We are preparing AI issues in the appropriate existing organisational functions, such as the tactical development, management and progress committee (TUFF), architecture steering, software preparation or the machine learning group (ML group).

The Methodology and Architecture Governance unit is given the opportunity to coordinate AI initiatives as it aims to be represented in these functions, as well as in the steering committees for the management objects. The ML group is given the means to coordinate work on AI models that are to be used in statistical production.

We need to ensure that our principles and processes evolve as we develop our use of AI, and that up-to-date information is available

¹⁰ <https://inblick.scb.intra/Regler--styrning/verksamhetsstyrning-och-ekonomi/verksamhetsstyrning/lopande-verksamhet/>

¹¹ <https://inblick.scb.intra/strategi/strategisk-kompetensutveckling/>

on ongoing AI initiatives, appropriate AI training programmes, internal steering documents, etc. on Inblick, the Statistics Sweden intranet.

Further guidance

Statistics Sweden's use of AI is generally based on Statistics Sweden's regular governance and support: the most important elements are linked directly in the policy.

Guidelines, procedures and other information related to AI use in more specific terms can be found on Inblick¹².

Statistics Sweden's process for machine learning in statistical production can be found in Statistikproduktionsstödet (the Statistical Production Support System) under "Övergripande processer" (General processes).

The work on the policy has been documented in an internal report ("AI-policy för SCB, föredragnings-pm inför gd-beslut" [AI policy for Statistics Sweden, presentation memorandum for the Director-General's decision]), which is also available on Inblick.

¹² Statistics Sweden's AI page on the intranet: <https://inblick.scb.intra/Stod/ai-anvandning/>