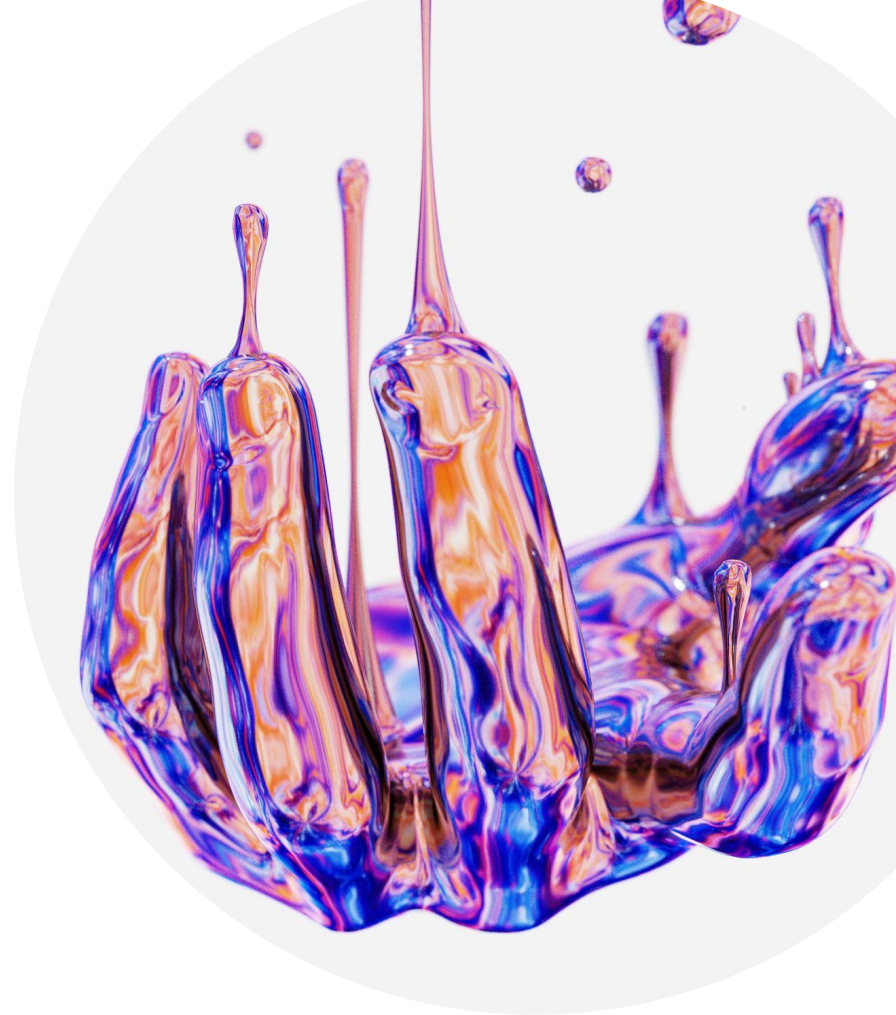


Responsible AI

– key learnings for
leaders

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Leader, do you understand what it takes to develop responsible and mindful AI?

There are many definitions of artificial intelligence, but the essential point is that we are dealing with a set of technologies that can be considered learning. In machine learning, algorithms learn to structure data and draw conclusions from it independently. In terms of responsibility, it is important to understand that it matters *how the algorithm is taught*. Artificial intelligence scales and is able to make decisions far more efficiently than humans, so understanding the consequences of decisions is critical in the development of responsible artificial intelligence.

We held a webinar on 8th of November 2023 about this topic and we want to share this material to all leaders and people working close to leadership positions. **Our aim is to share the foundations and key things you as a leader need to consider in your organisation when using or developing AI.**

Our AI & Impact Lead **Minna Mustakallio** walks you through **the essential elements of artificial intelligence development and how leadership can have a massive impact on the outcome of the development**. We hope you enjoy the material and urge you to send us a message if you want to set up a meeting about how responsible AI will affect your organisation – this material only scratches the surface of what more there is to consider.



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AI & Impact Lead

About the author

- Minna has been working in digital business since 1999 in various roles, including design, business, product management, and leadership
- She has been an advocate of **AI ethics** and mindful data usage since 2017
- Several leading AI roles at Futurice, Saidot.ai, and Silo.ai
- *Currently working as the lead AI advisor in a large public sector Finnish organization, focusing on aligning AI use with values and strategy and governing AI.*

1. The importance of basic foundation

First, let's get back to basics



Why back to basics?

Basics have not changed – there's just a lot of hype going on

Essentially, it's crucial to have a solid strategy before using AI technologies. Your organization should use AI in a way that matches its values and goals. This a better approach than quickly giving everyone AI tools or starting many projects just to keep up with AI trends.

It is still early times

Remember, there are many types of AI, not just generative AI. "AI" is a general term – in reality it consists of several older and newer technologies

Solid foundation is more important than chasing the FOMO

Furthermore, the reasoning you do to align AI use within your organisation helps to align all technology use. Many organisations are still behind in their digital transformation and governance. If that base is eroded, it needs to be fixed before implementing any AI.

Responsibility of WHAT exactly?

There are many definitions of AI, but generally we are talking about a **bunch of technologies that can be considered as learning.**

In machine learning algorithms learn to structure data and make conclusions from it independently. In terms of responsibility it is thus important to understand that it is not trivial how we teach the algorithm.

Algorithmic decisions and choices are already widespread.

Today, data systems and algorithms can be deployed at unprecedented scale and speed.

Consequences will affect people with that same scale and speed.

Responsible AI primarily centers around addressing the following questions:

1. How and with what kind of **data** do we **train** algorithmic systems?
2. What are the **consequences** of using AI technologies?
3. Are these consequences **morally right** (AI ethics)?

Algorithms – training and explainability

Algorithms continuously learn to **better optimize the objectives set for them**. In terms of responsibility, the most crucial aspect is what objectives algorithms **are developed to optimize**, and **what questions we ask them for answers**.

The goals and logic of an algorithm are important information for users and stakeholders. Another critical aspect of responsibility in algorithms is therefore **explainability**.

Explainability doesn't just mean describing the technical operation of the algorithm transparently but also ensuring that the data used, and the how the algorithm functions, can be explained to the people affected by the algorithm.

Responsible algorithm development:

- Defines the **objectives** of algorithms carefully, taking all **impacts** into account.
- Understands at a **sufficient level** on what basis the algorithm makes its **decisions**.
- Clearly **explains** the **objectives** and **logic** of algorithmic decision-making to users and stakeholders.
- Successfully balances **performance** and **explainability**.



Consequences matter

A high-quality artificial intelligence application answers the question defined for it at a sufficiently accurate and reliable level that it can be used for decision-making.

- Reliability and accuracy depends on the **context**.
- Understanding the **consequences**, especially the unintended ones, is an essential part of developing responsible artificial intelligence.
- Artificial intelligence cannot be **responsible** for anything → it must be clear who is responsible for the end result.

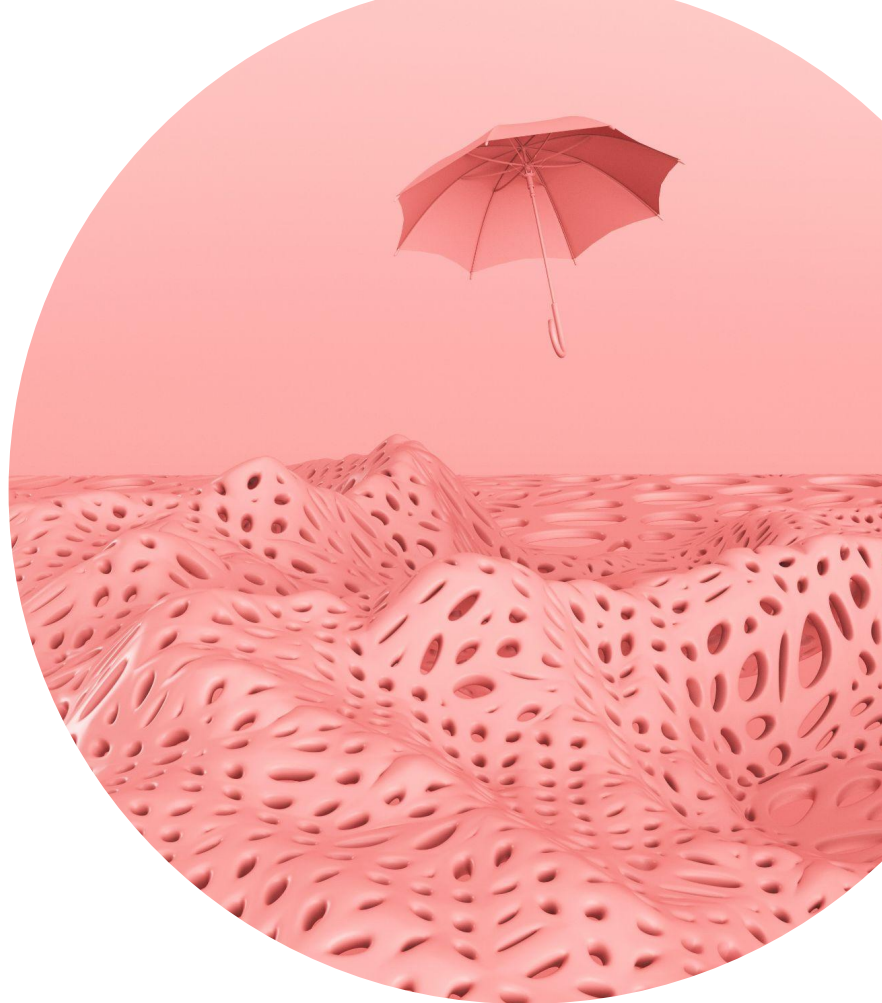
Responsible algorithm development – check list

- ❖ Responsible artificial intelligence development includes examining the end **results** through both **quality** and **consequences**.
- ❖ The context determines the requirements for the quality of data and conclusions
- ❖ Understanding the consequences is central to all artificial intelligence development and everyone involved in it
- ❖ A human is always responsible for the operation of artificial intelligence

2. Going through the basics

But what is responsibility?

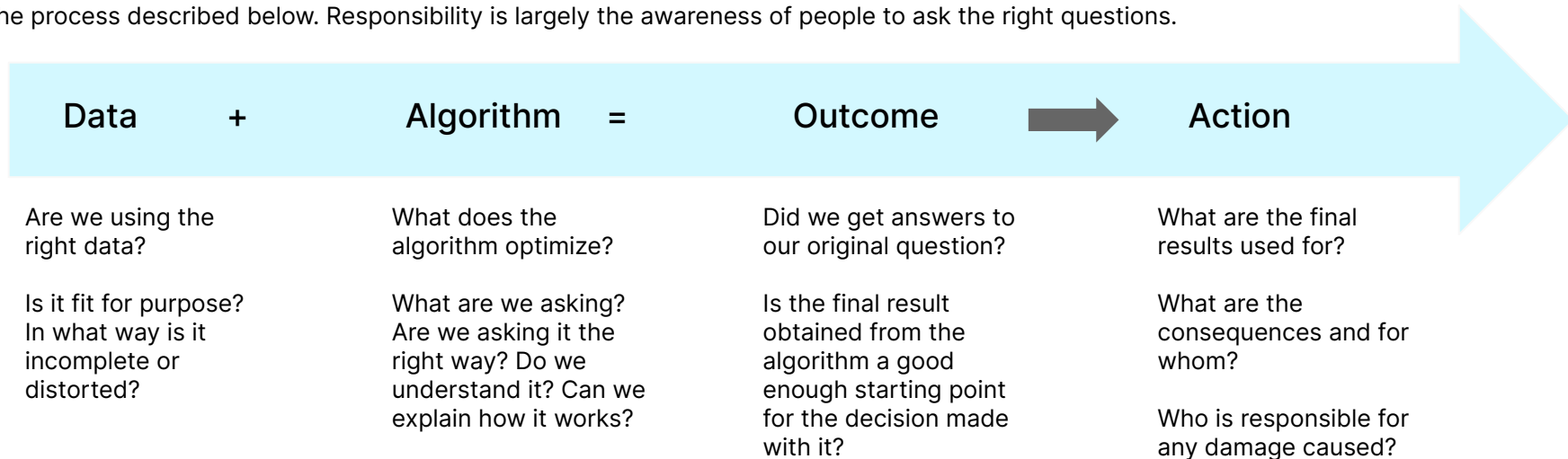
Is it about preventing AI becoming conscious?



Responsibility is largely the awareness of people to ask the **right** questions.

Responsible artificial intelligence and especially the ethics of artificial intelligence are often thought of as thinking about existential problems, such as whether artificial intelligence will become smarter than humans or whether it will develop consciousness.

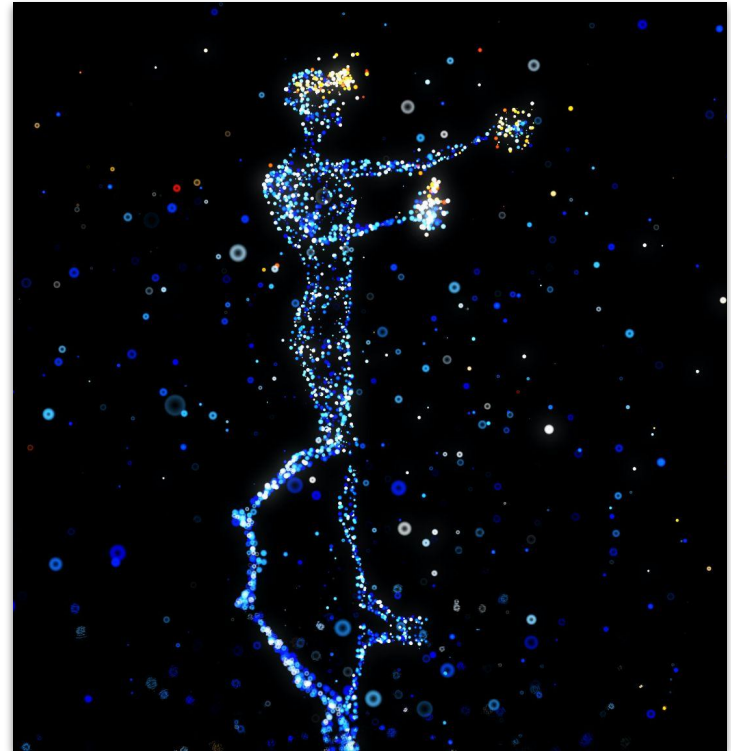
However, by far the most important and largest part of all responsible artificial intelligence development is the systematic implementation of the process described below. Responsibility is largely the awareness of people to ask the right questions.



Responsible AI development – check list

Remember, it's about a systemic process that aligns with your company values and strategy:

- ❖ Responsible artificial intelligence development includes examining the end **results** through both **quality** and **consequences**.
- ❖ The **context** determines the **requirements** for the quality of data and conclusions
- ❖ Understanding the **consequences** is central to all artificial intelligence development and **everyone** involved in it
- ❖ A **human** is always **responsible** for the operation of artificial intelligence



3. Getting the basics right

What and who does your data represent?



Data is useful – always an imperfect and distorted way to depict things

Understanding the possibilities and limitations of data is the cornerstone of responsible artificial intelligence.

Data is useful, but it is always an imperfect and distorted way to depict things.

The quality of data and its suitability for the intended purpose are the most crucial factors in the quality of AI solutions and, consequently, their responsibility.

Data quality also affects its credibility - **the more important the decision, the stricter the criteria for the data.**

Understanding the possibilities and limitations of data is a cornerstone of responsible artificial intelligence.

Responsible Data Usage:

- Ensures that in AI development, we learn from the right, **purpose-fitting**, and **high-quality** data.
- Identifies **imperfections** and **distortions** (bias) that are always associated with even high-quality data.
- Helps **recognize** the issues related to data and when **decisions** should not or should not be made based on data.

3. Getting the basics right

What *should* we outsource to the machine?



We are facing unknown challenges – but we can be prepared

Although the most important part of responsible artificial intelligence development is tackling the identified challenges and risks, **there must also be a discussion about the effects of artificial intelligence on how the utilization of artificial intelligence affects humanity and society more broadly.**

- What we can trust as **truth**?
- Which part of **knowledge** or **creative work** is **important** in terms of our own thinking and which is not?
- What should we really **outsource** to the machine from the perspective of our own human development?

How to address the still unknown or unstudied challenges?

- ❖ Strategic level **risk identification** and **management**
- ❖ Industry level **cooperation** to understand and manage transformational **effects** of AI on your own sector
- ❖ **Sharing** learnings and co-operation between industries, academia and regulators
- ❖ **Time** and **encouragement** for employees to discuss about transformative effects of AI with peers in and outside of their own organisation
- ❖ **Multidisciplinary** teams!

Responsibility has many benefits – ultimately it leads to good quality

- Responsibility is not only an intrinsic value but also **frees energy, reducing many uncertainties.**
- When there is support and information available for both legality and addressing ethical issues, **development decisions become easier to make.**
- Creativity needs boundaries - guardrails for responsible AI **create psychological safety** for ideating and utilizing artificial intelligence
- Transparency and reliability in AI development **strengthen public trust** in the organisation.
- Responsibility leads to **good quality**



IF

Being responsible is a systematic process of mindful consideration

THEN

~~Move fast and break things~~

~~It's easier to ask forgiveness than permission~~

~~Implement first, ask questions later~~

→ The mindset of software and product/service development needs to **fundamentally change**

Leader, start with these:

If you work in a leadership role – or very close to leadership – this list gives you direction where to start:

- ❖ Align AI use and development with the **values** and **strategic goals** of your entire organisation – define **guiding principles** and **drivers** and follow with **policies** and **governance**
- ❖ Don't expect **tech** to handle it (they won't)
- ❖ **Lead** responsible AI **from the top**, consider selecting **responsible owner** from leadership team
- ❖ **Map** how AI is **already used** in your organisation (you might be surprised)
- ❖ **Balance** the fragmentation of AI utilisation with some central coordination of **AI portfolio and training**
- ❖ It's about **people!** Start to bring **more diversity** into technology projects and development.

Responsible AI is about your
ability to lead to the unknown.

Thank you!

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About un/known

We are a Helsinki-based management consultancy.

We believe that long-term success is built by optimists – those, who can resist tunnel vision and turn challenges into opportunities.

By bridging the gap between strategy and practice, we are ready to become your trusted allies in this process.

► **Strategy and Change**

We make visions come to reality. We connect your big ideas to real-world success, making sure your strategies lead to practical results and operational excellence.

► **Innovation and Growth**

Research is in our DNA. We facilitate innovation for organizations by exploring emerging trends, recognizing fresh opportunities, and offering flexible frameworks.

► **Mindful and Responsible AI**

We develop ethical and mindful AI practices, while ensuring your organisation's capabilities to adapt to change.

Do you want to leverage your organisations skills in AI?

Minna and Anna are seasoned design and technology professionals who understand the difficulty of crasping complex themes into daily work. Let us help!

Responsible & mindful AI: from existential questions to practical solutions

Keynote and a 2hr training tailored to your organisation.



Minna Mustakallio
AI & Impact Lead

Minna brings new concepts of value, such as sustainability metrics, into strategy and innovation work. She also creates guidelines and tools for using AI, data and developing algorithmic systems in a responsible and consequences-driven manner.

Contact
minna.mustakallio@unknown.global for more information

Harder, faster, better? Generative AI in Knowledge Work

Hands-on 4hr training tailored to your organisations needs



Anna Haverinen
Research Lead

Anna is helps our clients to leverage customer, market and future insights to create deeper impact in strategy and business development. She has a background in anthropology and deep experience in product design and business development in emerging markets.

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