

## Introduction + Demographics

Before you start, please switch off your phone, e-mail, and anything else might distract you.

Thank you!

Please enter your Prolific ID here:

*Description:* The study consists of several Likert and open-ended questions. You will be asked to provide your thoughts and opinions about our proposed framework, which aims to facilitate human-centric AI integration. A pilot study suggest a completion time of 8 minutes.

*Eligibility Requirements:* To be eligible to participate in the study, you must be 18 years of age or older and work full-time as a software engineer. Also, you should use at least to some degree one language model in your working tasks.

*Ethics information:* If you have any questions at any time about the studies, please do not hesitate to contact the researcher (see below for contact details). Participation is voluntary and all responses will be collected anonymously. You are free to withdraw at any time, without giving a reason. However, you cannot withdraw after you completed the study, because we will not be able to identify your data.

Contact details of lead researcher  
Theocharis Tavantzis, PhD candidate  
Aalborg University  
Department of Computer Science  
Copenhagen, 2450

Denmark

thta@cs.aau.dk

You need to agree with each statement to participate. If you do not consent, please close this tab.

1. I confirm that I have read and understand the Information Sheet for the above study.
2. I understand that no personal identifiable data will be collected.
3. I understand that my participation is voluntary and that I am free to withdraw from the study at any time without giving any reason and without penalty. I understand that any data collected up to the point of my withdrawal cannot be withdrawn because it cannot be identified.
4. I understand that my fully anonymised data will be used for the research purposes outlined and provided in detail at the end of the survey.
5. I understand that the data collected about me will be used to support other research in the field and may be made publicly available to benefit other researchers.
6. I agree to take part in the study.
7. I use, at least to some extent, language models (e.g., Copilot, Codex, ChatGPT) in my research.

You are required to provide all answers on your own, without any assistance, including from a language model.

Please note that all of your responses will be subject to analysis by an AI classifier to identify any content that may have been generated by an artificial intelligence system.

- ☐ I do understand
- ☐ I do NOT understand

Choose the answer that best fits the description of a compiler's function.

- ☐ Refactoring code
- ☐ Connecting to the network
- ☐ Aggregating user data
- ☐ I don't know
- ☐ Translating code into executable instruction
- ☐ Collecting user data

Which of these websites do you most frequently use as aid when programming?

- ☐ Wikipedia
- ☐ LinkedIn
- ☐ Stack Overflow
- ☐ Memory Alpha
- ☐ I have not used any of the websites above for programming
- ☐ I don't program

Choose the answer that best fits the definition of a recursive function.

- ☐ A function that runs for an infinite time
- ☐ A function that does not have a return value
- ☐ A function that can be called from other functions
- ☐ A function that calls itself
- ☐ A function that does not require any inputs
- ☐ I don't know

What is your gender?

- ☐ Man
- ☐ Woman
- ☐ Non-binary
- ☐ Prefer not to say
- ☐  Self disclose

In which country do you currently reside?

For how many years have you been working in the software industry?

0 2 3 5 6 8 9 11 12 14 15 17 18 20 21 23 24 26 27 29 30  
Years

Which job role do you currently hold that best defines you?

- ☐ Software Developer / Programmer
- ☐ Team Lead
- ☐ Architect
- ☐ DevOps/Infrastructure Engineer
- ☐ CIO / CEO / CTO
- ☐ Tester / QA Engineer
- ☐ UX / UI Designer
- ☐ Data analyst / Data engineer/ Data scientist
- ☐  Other (specify)

## Current AI integration landscape

Select the most critical challenges your organization faces when integrating AI to improve internal work processes?

- |   |   |
|---|---|
| <input type="checkbox"/> External communication                               | <input type="checkbox"/> Lack of patience to work with AI   |
| <input type="checkbox"/> Internal communication                               | <input type="checkbox"/> Keeping up with AI advancements  |
| <input type="checkbox"/> Considerate use of external AI with company's data   | <input type="checkbox"/> Lack of skills due to AI (Over-reliance on AI leads to a decline in problem-solving and hands-on capabilities) |
| <input type="checkbox"/> Risk aversion due to sensitive data                  | <input type="checkbox"/> Necessity to adjust skillset   |
| <input type="checkbox"/> Adaptation to global and local data legislation      | <input type="checkbox"/> Balance automation with human supervision  |
| <input type="checkbox"/> Cross-Functional Collaboration                       | <input type="checkbox"/> Considering AI as a team member, instead of a tool   |
| <input type="checkbox"/> Ensuring organizational alignment                    | <input type="checkbox"/> Contextual Use of AI (Recognize cases where AI use is effective or is not effective)                           |
| <input type="checkbox"/> Handling differing views regarding AI transformation | <input type="checkbox"/> Establish balance in using internal and external AI solutions  |
| <input type="checkbox"/> Inter-generational Collaboration                     | <input type="checkbox"/> Over-reliance on AI  |
| <input type="checkbox"/> Public sector's unique nature                        | <input type="checkbox"/> Purpose-driven AI adoption   |
| <input type="checkbox"/> Job displacement                                     | <input type="checkbox"/> Other:   |
| <input type="checkbox"/> Lack of deep AI knowledge and understanding          | <input type="text"/>  |

How has your organization dealt with these challenges? (Scale: 1 = Not successfully, 5 = Very successfully)

- |                       |                       |
|-----------------------|-----------------------|
| 1                     | 2                     |
| <input type="radio"/> | <input type="radio"/> |
| 3                     | 4                     |
| <input type="radio"/> | <input type="radio"/> |

5

☐

Does your organization have a defined strategy for AI integration?

Yes

No

Not Sure

☐☐☐

If yes, how do you feel with your organization's AI integration strategy?  
(Scale: 1 = Not satisfied, 5 = Very satisfied)

1

2

☐☐

3

4

☐☐

5

☐

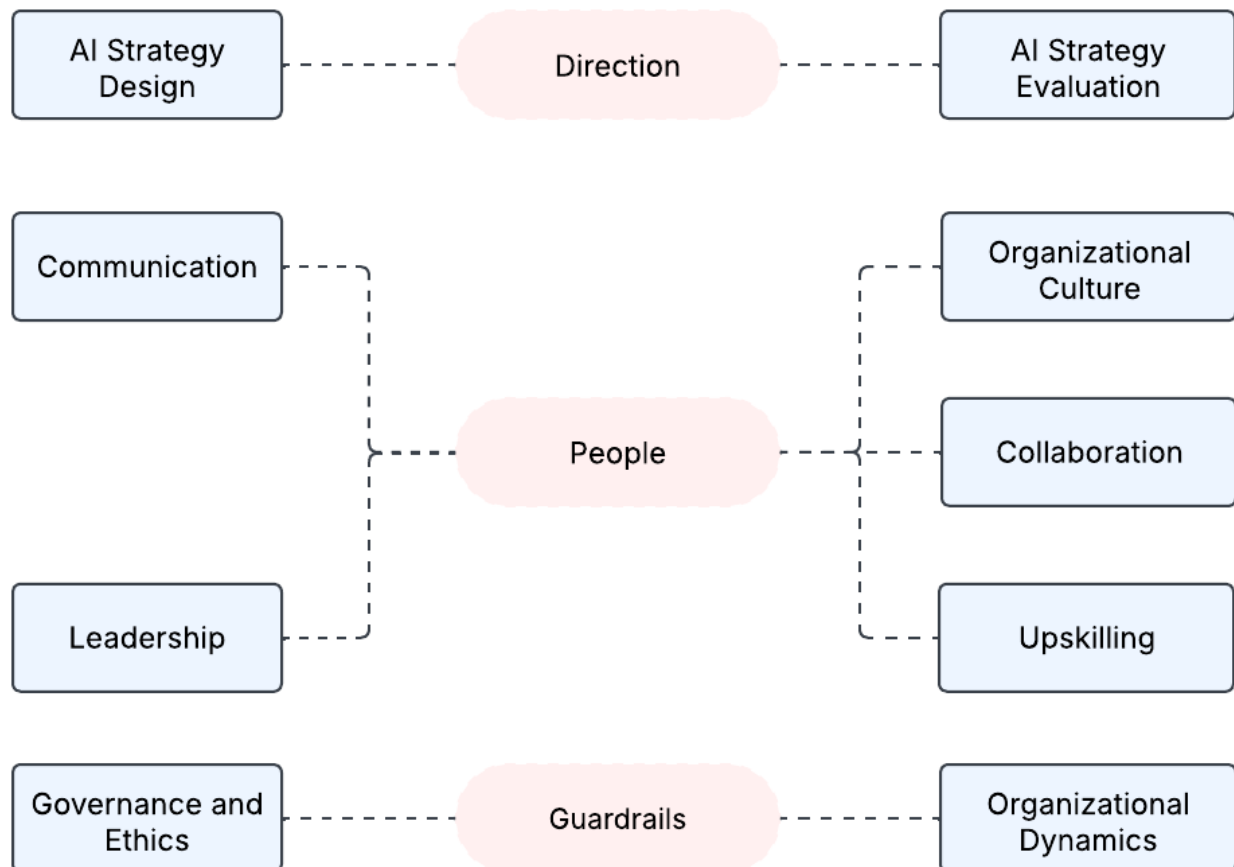
## The dimensions of the proposed framework

The proposed solution consists of the following nine dimensions that pertain to different aspects of the process of AI integration:

- **Leadership:** enables AI adoption by fostering urgency, shared needs, and collaboration and leveraging talent and innovation to achieve small wins.
- **Organizational Dynamics:** secures that both internal (e.g., leadership alignment) and external (e.g. industry partnerships) factors are managed to facilitate AI integration.
- **AI Strategy Evaluation:** ensures the effective AI integration by establishing

continuous monitoring mechanisms, such as by defining certain KPIs.

- **AI Strategy Design:** involves developing an AI strategy that aligns with business objectives, incorporates the latest technological advancements, and considers regulatory and ethical guidelines.
- **Organizational Culture:** refers to how fostering experimentation and adopting an agile mindset across the organization can accelerate AI integration and drive innovation.
- **Governance & Ethics:** ensures responsible AI usage by defining regulatory compliance measures, internal governance policies, and risk mitigation strategies to maintain trust and accountability.
- **Up-skilling:** aims to enhance employees' capabilities and skills that are necessary in the AI era.
- **Communication:** encourages continuous and structured engagement to ensure smoother AI adoption.
- **Collaboration:** relates to the importance of cross-functional teamwork and knowledge sharing to enhance AI adoption and integration.



Do you see any gaps or missing dimensions in the framework?

A large, empty rectangular text box with a thin black border, intended for user input.

Would you suggest any modifications to improve clarity or relevance?

A large, empty rectangular text box with a thin black border, intended for user input.

### **Overall Model Feedback**

The framework consists of the nine dimensions that were presented in the previous section. Each dimension comprises several design principles. The following Figure illustrates the dimensions with their respective design principles.





How do you find the understandability of the proposed framework? (Scale: 1 = Not difficult at all, 5 = Very difficult)

- |                       |                       |
|-----------------------|-----------------------|
| 1                     | 2                     |
| <input type="radio"/> | <input type="radio"/> |
| 3                     | 4                     |
| <input type="radio"/> | <input type="radio"/> |
| 5                     |                       |
| <input type="radio"/> |                       |

Do you think that the proposed model can address the challenges that AI integration raises?

- ☐ No
- ☐ To some degree
- ☐ Yes

Please explain your thinking in the previous question.

What improvements would you suggest to enhance the framework's effectiveness?

## Dimensions' Prioritization - \$100 Method

Imagine you have \$100 to distribute among the following dimensions of the model based on how important each one is to you. The more important a dimension is, the more money you should allocate to it. You do not have to allocate money to every dimension, but the total must add up to exactly \$100. If you decide not to allocate any money to a dimension, please enter the value '0'.

Please allocate the money without exceeding the total amount of the \$100.

AI Strategy Design	<input type="text" value="0"/>
AI Strategy Evaluation	<input type="text" value="0"/>
Collaboration	<input type="text" value="0"/>
Communication	<input type="text" value="0"/>
Governance and Ethics	<input type="text" value="0"/>
Leadership	<input type="text" value="0"/>
Organizational Culture	<input type="text" value="0"/>
Organizational Dynamics	<input type="text" value="0"/>
Up-Skilling	<input type="text" value="0"/>
Total	<input type="text" value="0"/>

## Block 6

Do you have any final comments?



Powered by Qualtrics