

Advances on Societal Digital Transformation
DIGITAL 2023

USING AI CHATBOTS TO SUPPORT PROJECT MANAGEMENT TASKS

COULD CHATGPT BE YOUR NEW PROJECT MANAGEMENT ASSISTANT?

Claudia Hess & Sibylle Kunz
IU International University of
Applied Sciences

claudia.hess@iu.org

Sibylle.kunz@iu.org



– Professional Experience

- Professor for Digital Transformation at IU International University of Applied Science in online distance learning since 2020
- IT-Consultant and project lead with focus on digital transformation projects in manufacturing, automotive industry and mobility, since 2022 as freelancer
- Trainer for digital skills, especially in the context of AI and Data Science, as well as agile / hybrid project management
- Business coaching / team coaching

– Current Research Activities

- Ethical and societal considerations of AI and Data Science
- Women in STEM



Can ChatGPT replace the project
management assistant in my
project?

AGENDA

Application Scenarios for AI Chatbots in Project Management

1

Required Skills

2

Case Study: How can ChatGPT Support Stakeholder Management?

3

Brief Discussion of Potentials and Risks

4

Generate Ideas and Insights

- Brainstorming and retrieval of information in combination with search engines
- Example: Generate a list of potential risks

“How to Do”- Assistance

- Ask the AI chatbot for guidance on a specific task
- Example: How to plan and estimate the project?

Text Summarization

- Summarize or extract key aspects of large texts
- Example: compile project data for a status update

Content Creation

- Generate content for various purposes, such as social media updates, product descriptions
- Correct spelling, punctuation, grammar, and change its writing style
- Example: Prepare communication about a milestone achieved in the project for different stakeholders

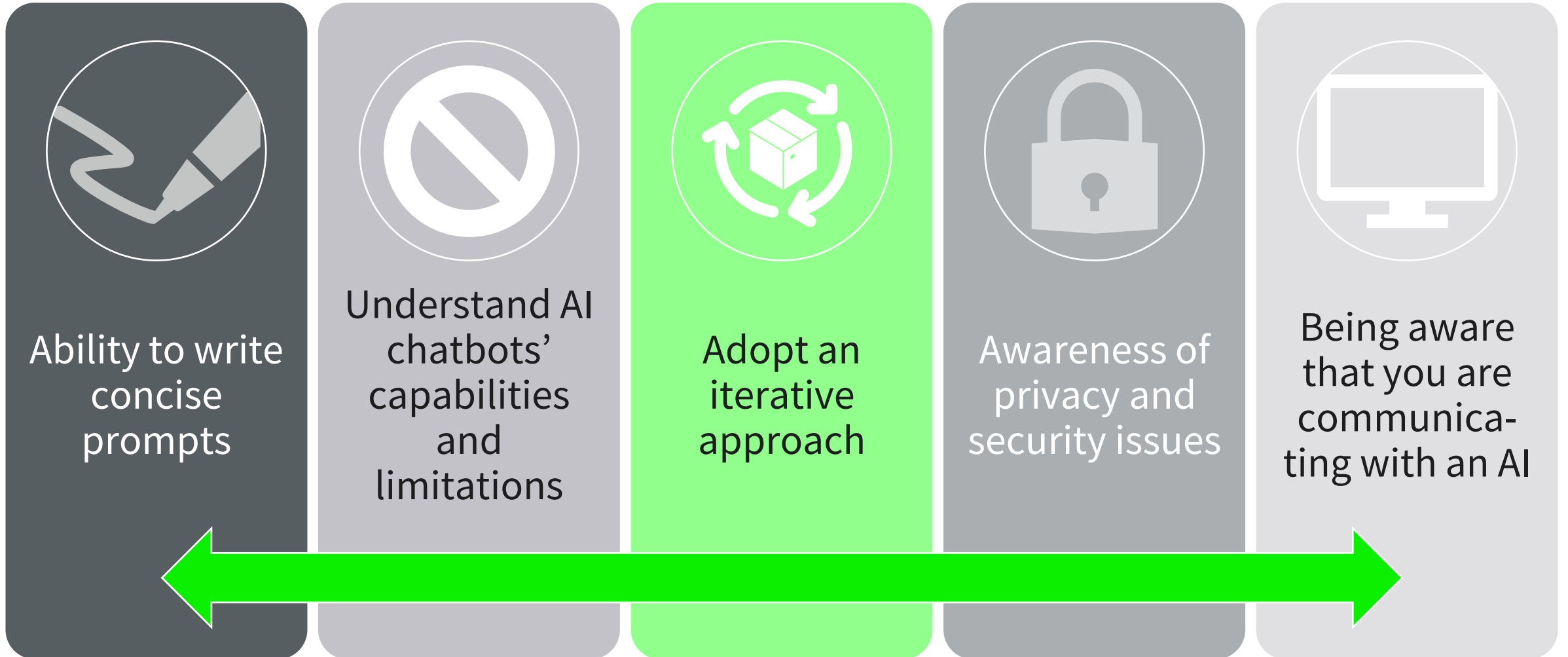
Pretend to be Someone Else

- Explore different perspectives by simulating to be a particular persona (“role prompting”)
- Example: AI chatbot provide responses / asks questions from a particular stakeholder’s perspective

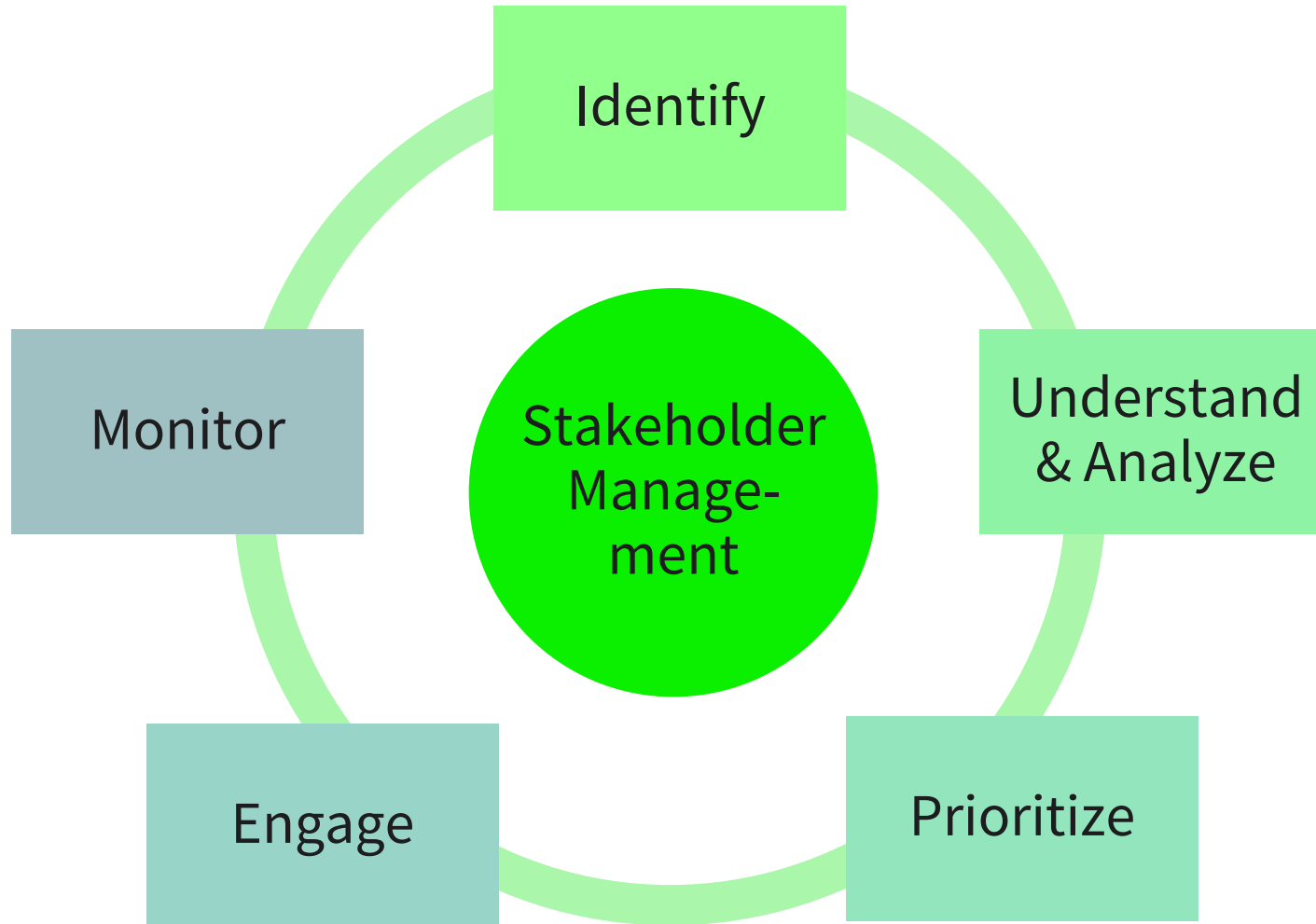
Sentiment Analysis

- Identify sentiments or emotional tones expressed in a given text
- Example: analyze comments posted by stakeholders on social media about the project

REQUIRED SKILLS



TASKS IN STAKEHOLDER MANAGEMENT



- Stakeholder management is one of the central performance domains in project management
- Objective: maintain alignment with the stakeholders of a project

➔ How can an AI chatbot

CASE STUDY: HOW CAN CHATGPT SUPPORT STAKEHOLDER MANAGEMENT?

Identify Stakeholders

Intent	Identify all potential internal and external stakeholders of a project
Type of prompt	Brainstorming
Required input	Context information about the project
Prompt	<i>Consider the following project and identify the different stakeholders involved in this project: The digitalization project in a German manufacturing company aims to introduce a new digital system for recording the working time. This new system should simplify and automate the process of recording working time. This project encompasses the vendor selection, the customization of the selected solution but also the process redesign and the training of the future users.</i>
Result	List of stakeholders including a brief description of how they are connected with the project

CASE STUDY: HOW CAN CHATGPT SUPPORT STAKEHOLDER MANAGEMENT?

Identify Stakeholders



Provide concise information about the specific project



Sure, in the given digitalization project for a German manufacturing company, there are several stakeholders involved, each with their own interests and roles in the project. Here are some of the key stakeholders:



1. **Company Management/Leadership:** The top management of the manufacturing company holds a significant stake in the project's success. They are responsible for the project's strategic alignment, budget allocation, and overall decision-making. They want the project to improve efficiency and contribute to the company's goals.
2. **Employees:** The employees of the manufacturing company are directly impacted by the new digital system for recording working time. Their concerns about the usability, accuracy, and potential changes to their workflow need to be addressed. Training and support are crucial for them to adapt to the new system.
3. **IT Department:** The IT team within the company plays a key role in implementing the new digital system. They are responsible for integrating the chosen solution with existing systems, ensuring data security, and providing technical support throughout the project.
4. **Human Resources (HR):** The HR department is responsible for the management of employee data and payroll. They have a vested interest in the accuracy and efficiency of the

Regenerate



CASE STUDY: HOW CAN CHATGPT SUPPORT STAKEHOLDER MANAGEMENT?

Understand and Analyze Stakeholders

Intent	Understand the stakeholders' feelings, emotions, beliefs and values
Type of prompt	Generate insights
Required input	The stakeholder to be analyzed. If available, context information about the stakeholder or past experiences with this stakeholder should be added.
Prompt	<i>Discuss for the stakeholder "work council" its power, impact, attitude, beliefs, expectations, degree of influence, proximity to the project and its interest in the project.</i>
Result	Information about each of the key aspects required in the prompt. Note that without providing the key aspects in the prompt, the result would be more general.

CASE STUDY: HOW CAN CHATGPT SUPPORT STAKEHOLDER MANAGEMENT?

Understand and Analyze Stakeholders



Build prompts
upon each other –
AI chatbots
remember the
conversation



The "work council" is an important stakeholder in the context of a digitalization project, especially in a German manufacturing company where employee representation and labor unions play a significant role. Let's delve into various aspects related to the work council's power, impact, attitude, beliefs, expectations, degree of influence, proximity to the project, and its interest in the project:



1. **Power and Impact:** Work councils in Germany hold considerable power and influence when it comes to matters concerning employees' rights, working conditions, and organizational changes. They are legally mandated bodies representing employees' interests and have the authority to provide input on various company decisions that affect the workforce. Their approval is often required for major changes that impact employees, such as introducing new systems like the digital working time recording system.
2. **Attitude and Beliefs:** Work councils typically advocate for the best interests of employees. They prioritize job security, fair treatment, and employee well-being. Their stance may lean towards caution when it comes to technology implementations, as they want to ensure that the new system doesn't negatively affect employees' rights or working conditions.
3. **Expectations:** The work council expects transparent communication from the company

↻ Regenerate



CASE STUDY: HOW CAN CHATGPT SUPPORT STAKEHOLDER MANAGEMENT?

Engage Stakeholders

Intent	Train the conversation with a difficult stakeholder
Type of prompt	Training and simulation
Required input	Information about the situation
Prompt	<i>I'm the project lead of the following project: [...] I have identified the work council as an important stakeholder in this project. Act as the stakeholder work council. I want you to do a dialogue with me. Start with asking a question about your first concern and wait for my answers.</i>
Result	Flipped interaction with questions asked by the AI chatbot and answers given by the user

CASE STUDY: HOW CAN CHATGPT SUPPORT STAKEHOLDER MANAGEMENT?

Engage Stakeholders



Use the possibility of a flipped interaction



Work Council: Hello, I appreciate the opportunity to discuss this digitalization project with you. Our primary concern is how this new digital working time recording system might impact our fellow employees' working conditions and rights. Can you provide more details about how the project aims to address these concerns?



(Note: Please provide your response as the project lead, and I'll continue the dialogue accordingly.)

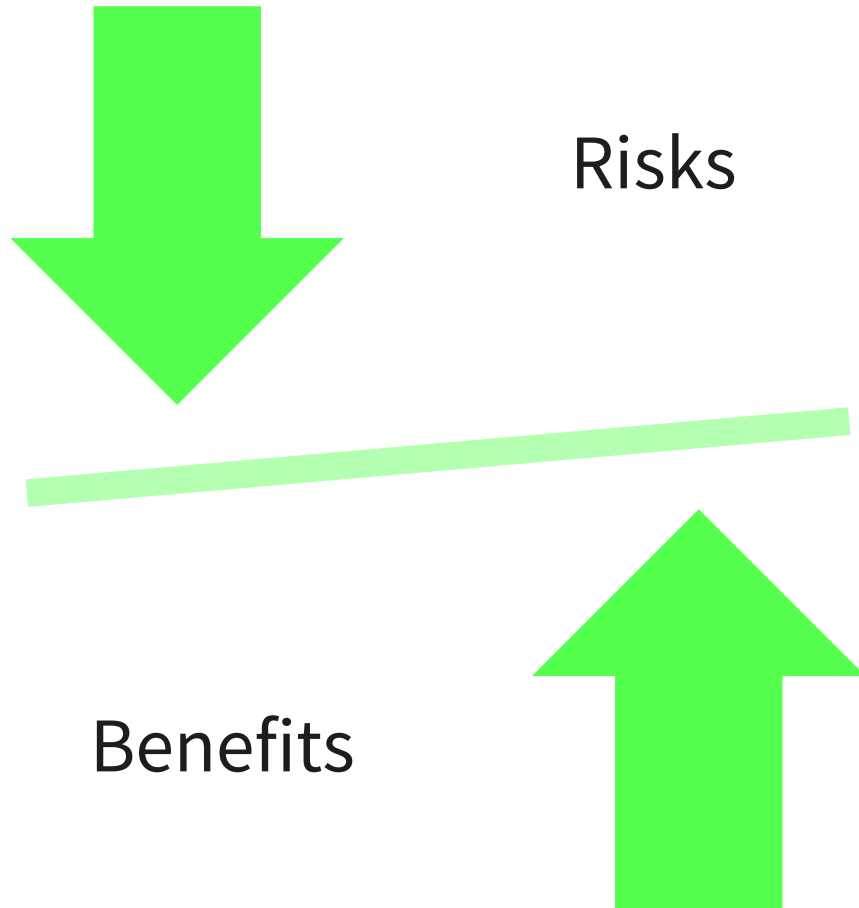


We are planning to provide info sessions and trainings.



Work Council: Thank you for sharing that. Training and information sessions sound like a positive step. Could you elaborate on the specifics of these sessions? How do you plan to ensure that all employees, including those who might not be as tech-savvy, can effectively use the new digital system? Additionally, will there be a mechanism for employees to provide feedback during and after the training sessions? We want to make sure that everyone's needs are considered.





- Requires trust that the chatbot has a solid knowledge of project management methods and good practices
 - ➔ Recommendation: Provide required guidance to the chatbot in the prompt
- Be able to review any generated content and trace it back to the source
 - ➔ Recommendation: Ask the AI chatbot to provide its reasoning in addition to the answer
- Be extremely careful about the disclosure of any sensitive information
 - ➔ Recommendation: develop AI chatbots as business-internal solutions

WHAT DOES CHATGPT SAY - CAN IT REPLACE THE PROJECT MANAGEMENT ASSISTANT?



Can you replace the project management assistant in my project?

Do I still need a project management assistant, or will you do all the work?



Of course, I'd be happy to help you as a project management assistant! Please provide me with more details about your project. [...]

I can assist you with various aspects of project management [...]. However, it's important to note that I am a virtual assistant and can't completely replace a human project management assistant. [...] I won't be able to handle all the intricacies of team dynamics, unexpected issues, and nuanced decision-making that often come with project management.

THANK YOU!

LIST OF SOURCES

Project Management Institute, “A guide to the Project Management Body of Knowledge (PMBOK® Guide; 7th ed.),” 2021.