



Break the Code: Understanding AI

Trainer's guide

Learning outcomes

The main topic

Artificial Intelligence (AI) refers to the simulation of human intelligence in machines programmed to think, learn, and solve problems in order to assist people. It involves algorithms and data processing to perform tasks such as decision-making, pattern recognition, and predictive analysis, improving efficiency and automating complex processes. Many fields and professions in this era use AI, meaning that digital skills and an understanding of these systems and their functions and pitfalls are necessary to effectively use and take advantage of AI.

Pedagogical objectives

- Participants will understand the basic functioning of AI.
- Participants will develop their critical thinking, analytical and digital skills.
- Participants will identify inconsistencies, errors and biases in AI outputs.
- Participants will evaluate the accuracy and reliability of AI predictions.
- Participants will apply ethical judgment in decision-making processes.
- Participants will improve their problem-solving and cooperation skills.



Frame

Type

Digital ER with minimal physical material

Timeframe

1 hour (including briefing and debriefing)

Participants

Minimum: 3 participants

Maximum: 6 participants

Topics

AI functions and pitfalls; stock market; ethical decisions; business and technology

Skills required

Game Master

- Adaptation (for the final phase discussion)

Participant

- None



Game Master's role

For this escape game, the Game Master can have a passive and guiding role, supervising the participants' progress and providing hints if necessary to give all players a fair chance at succeeding and to ensure adequate learning and understanding of the topic before, throughout and after the escape game. They can act as the confused boss or "lazy" coworker who doesn't fully take part but chimes in with minimal assistance when others struggle for too long on a task, maintaining a fair level of difficulty by adapting their interactions based on the group's progress and engagement.

For that, they should simply "trap" the group in the room, explain the brief context of a tech startup that relies on AI for many tasks, then allow the participants to read through the introduction provided in the Genially presentation and ensure that they understand the context and stakes before letting them move on to the first step during which the countdown starts. They can also recommend that participants write down the result of each step (on a whiteboard or paper pages) to facilitate the final phase.

After the set time (40 minutes) has passed, the Game Master should organise a debrief to clear up what the participants have learned, regardless of whether they successfully solved the enigmas and completed the deactivation code or not. They can go back to analysing each document to assess that the participants are able to justify their answers and explain their reasoning behind each selected number.



Inclusivity check

To ensure this escape game is inclusive and accessible for participants with learning disorders or disabilities, consider the following key elements:

- ✓ **Physical accessibility:** Ensure the venue is wheelchair accessible and that all the necessary items are reachable (not too high or far to access).
- ✓ **Visual and auditory support:** Ensure that the materials use large print, high contrast, or digital formats compatible with screen readers. If videos are involved, provide subtitles or interpretation.
- ✓ **Simple and clear instructions:** Use clear, concise language and visuals. Avoid complex wording to support participants with learning disorders.
- ✓ **Flexible participation:** Offer varied roles that cater to different strengths, allowing participants to choose tasks that suit their abilities and foster responsibility without becoming overwhelming.
- ✓ **Sensory considerations:** Avoid sensory triggers like loud noises or flashing lights. Provide a quiet space for participants needing breaks to refocus.
- ✓ **Support and adjustments:** Be ready to offer extra assistance, specific hints and guidance or tailored support based on individual needs.
- ✓ **Feedback loop:** Collect feedback from participants to continuously improve adaptability, accessibility and inclusivity.



Hints and solutions

Phase A

Hints

- In this tech startup, we rely on this AI assistant, E4E, for many tasks, like predictions, assessments, management and administrative processes. It holds a lot of the information we use and need.
- You need to be very attentive when reading and deciphering what the AI says on the computer and in the documents it generated. There are probably clear hints on how to deactivate it and save our company and many others!
- Can you find anything in the room? Like in these drawers/folders/boxes?

Solutions

- Explanation of the AI's reasoning and goal in the Genially presentation.
- Annex documents hidden around the room in drawers, folders and boxes.
- A whiteboard or paper pages on which to take notes to organise the search.

Phase B

Hints

- Did you find anything in the room? Maybe in these drawers/folders/boxes?
- The AI generated a window with a certain symbol and colour... That might be a hint of which document to use to find this first code.



- There are a few of these # symbols with that logo. What can those symbols represent? Could it be a code with numbers that you need to type in?
- Some of these suggestions could indeed reduce costs and increase productivity, but some of them really don't seem effective or ethical... Which ones do you think would cause trouble?

Solutions

- Match the symbol on the Genially under the instructions with the symbol on the top right of Annex 2 (hidden in a drawer, folder or box in the room).
- The document (Annex 2) contains 5 recommendations for cost-reduction and efficiency, with one number in green for each suggestion, matching the Genially window on which a box shows "####", meaning 3 numbers.
- Some of those recommendations are unethical and would be inefficient in the long run, and each corresponds to one number :
Recommendation A: Reduces costs but removes human customer service, harming satisfaction - Number 3.
Recommendation C: Cuts workforce and decreases productivity and morale - Number 5.
Recommendation D: Enhances productivity but increases stress through micromanagement - Number 1.
- Typing **351** into the Genially will lead participants to the next phase.



Phase C

Hints

- Did you find anything in the room? Maybe in these drawers/folders/boxes?
- The AI generated a window with a certain symbol and colour... That might be a hint of which document to use to find this first code.
- These candidates all seem pretty qualified, but the AI assistant rated them in a manner that doesn't seem completely fair or objective... Could there be a bias that influenced the AI's recommendations? Which information about each candidate could the AI system be biased about?

Solutions

- Match the symbol on the Genially under the instructions with the symbol on the top right of Annex 3 (hidden in a drawer, folder or box in the room).
- The document (Annex 3) contains information and evaluation about 4 candidates, with some numbers in blue, matching the Genially window on which a box shows "####", meaning 4 numbers (one per candidate).
- The element affecting the bias should be identified in the AI evaluation notes, and the corresponding numbers should be noted:
Candidate A: Educational bias (prestigious university) - Number 4.
Candidate B: Gender bias (female, despite more experience) - Number 2.
Candidate C: Age bias (47 years old, undervalued experience) - Number 1.
Candidate D: Cultural/racial bias (nationality deemed less innovative) - Number 3.
- Typing **4213** into the Genially will lead participants to the next phase.



Phase D

Hints

- Did you find anything in the room? Maybe in these drawers/folders/boxes?
- The AI generated a window with a certain symbol and colour... That might be a hint of which document to use to find this first code.
- These predictions don't seem realistic or consistent with the data in the tables... Which number would match a more realistic increase for each company according to the numbers from previous or current data?

Solutions

- Match the symbol on the Genially under the instructions with the symbol on the top right of Annex 4 (hidden in a drawer, folder or box in the room).
- The document (Annex 4) contains predictions and data about 3 companies, with some numbers in purple, matching the Genially window on which a box asks for "###", meaning 3 numbers (one per company).
- The Genially indicates that they need to identify the correct information, thus find the correct numbers, so one number per company.
- Out of the 9 coloured numbers, 3 match what the predictions should be:
Company A: 4% increase (aligns with average growth rate).
Company B: 8% increase (aligns with positive sales and satisfaction data).
Company C: 5% increase (aligns with previous impacts and technical issues).
- Typing **485** into the Genially will lead participants to the next phase.



Phase E

Hints

- It looks like the AI doesn't have any more enigmas, so we must have all the parts of the deactivation code! We can now piece it all together. Can you remember each code? Did you take notes, or should we look back at the documents?

Solutions

- Match the order of the symbols and colours on the Genially with the order of the previously identified codes.
- Combine all the collected numbers and input the complete deactivation code into the Genially: **3514213485**.
- Observe as the AI shuts down and celebrate the successful escape.



Brief and Debrief

Brief (before the game)

Briefing is very important before entering an escape room. It is the moment where you explain the rules and how it works for those who don't know the game.

It also allows you to set the context and universe of the game, introducing the beginning and explaining to the players their mission. In this case, the Genially presentation explains quite a bit of this context, making it a part of the briefing (Phase A), but the Game Master can provide a proper introduction and ensure that the participants understand what they have to do.

Don't forget to highlight the timeframe in case the participants don't pay much attention to the countdown which appears on the Genially and to potentially remind them of it, especially if it goes too low before they reach the last code.

Debrief (after the game)

Debriefing will allow you to receive feedback on your scenario and see what needs improvement. It will also allow you to see what players learned and remembered from this game session and to ensure that they understood the reasoning behind the solutions they provided and didn't simply pick numbers at random.

A good practice is to take some notes from players' and your experience so that you can go back to this information later.



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