

Playing with Intelligence

AI-Powered
(Serious) Game Design
May 23, 2023

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Log in to: chat.openai.com



Welcome to ChatGPT

Log in with your OpenAI account to continue



Log in

Sign up

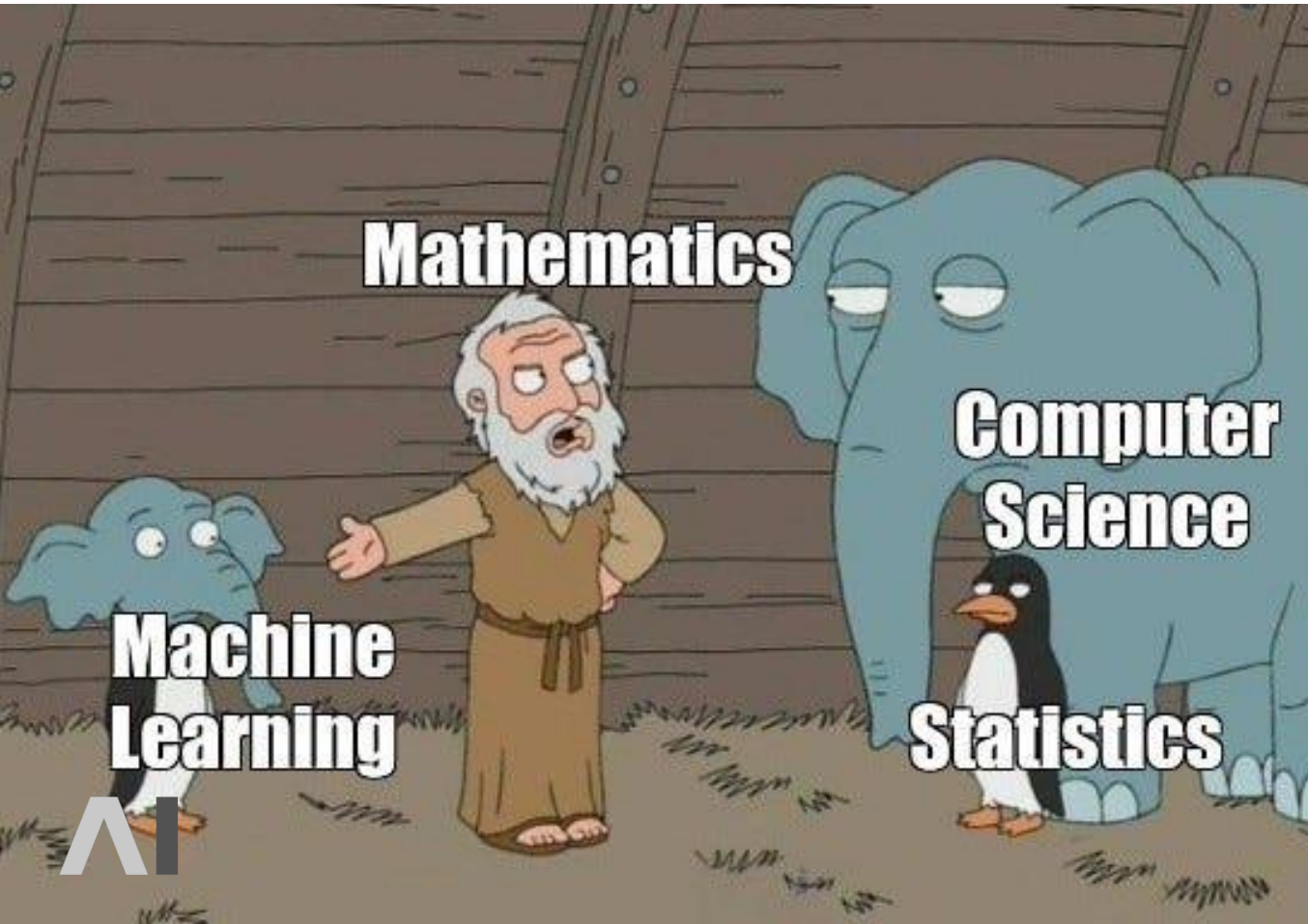
Programme

1. What is: AI/Play/Prompting
2. Playing with Intelligence
3. The Art, Science and Power of Playing with Intelligence

Superhero images representing Swiss cantons (right: Valais). Generated with Midjourney by [Alexandre Sadeghi](#).



Today's Goals



OBTAIN:

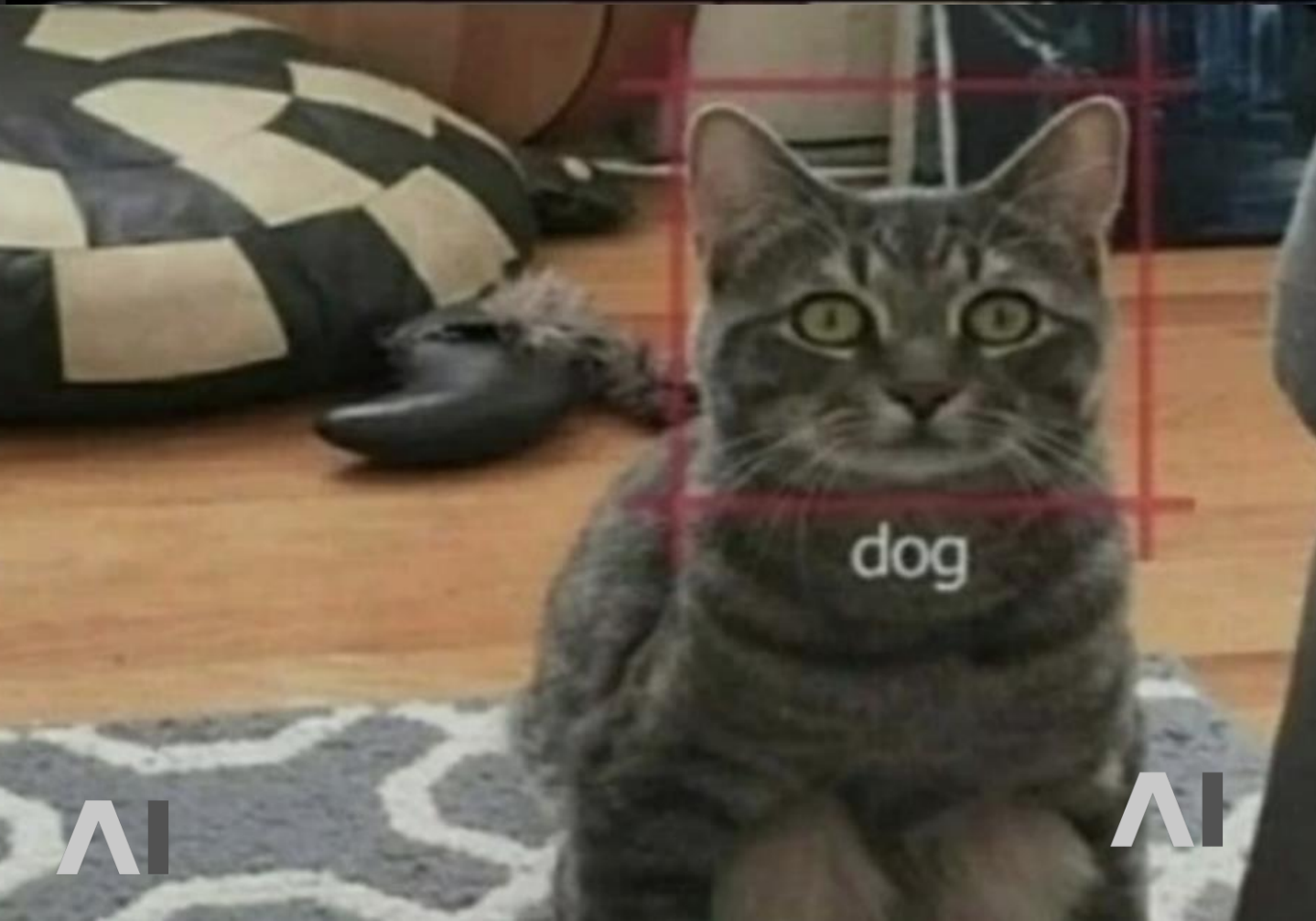
- Knowledge and practical skills with AI, specifically ChatGPT, for the purpose of (serious) game design.
- A basic understanding of 'prompting'.

INSIGHT INTO:

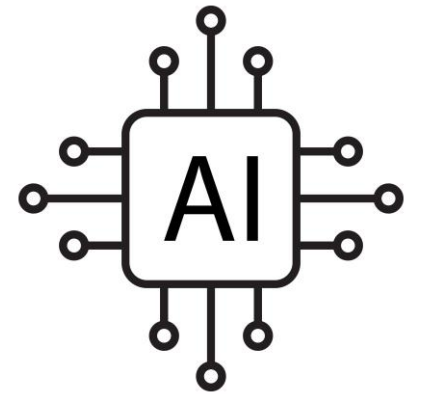
- Opportunities and possibilities, but also risks and threats, of AI and ChatGPT, in education, business and government.
- The art, science and power of playing and prompting.
- Current and upcoming developments and steps to take.
- What I and others may be capable of.

Media in the 90s: Ai will
destroy the earth

Ai now:



What is AI?



- What is your experience?
- Know any AI-Tools?
- Show me your prompts!



Artificial intelligence (AI) is the enterprise of (creating) intelligent machines that can **perform tasks requiring human-like intelligence.**

ChatGPT 3.5 (2023)



Play is a **voluntary activity** or occupation executed within certain **fixed limits of time and place**, according to **rules freely accepted** but **absolutely binding**, having its **aim in itself** and accompanied by a **feeling of tension, joy**, and the **consciousness** that it is '**different**' from '**ordinary life**.'

Johan Huizinga (1938)

Homo Ludens: A Study of the Play Element in Culture



AI-Prompting is a form of **interactive communication** that consists of **asking questions** and **giving instructions** to **AI-chatbots**, simultaneously utilizing *and* enhancing **hard skills** and **soft skills** ...

Tim Goudriaan (2023)



How do I Play with Intelligence

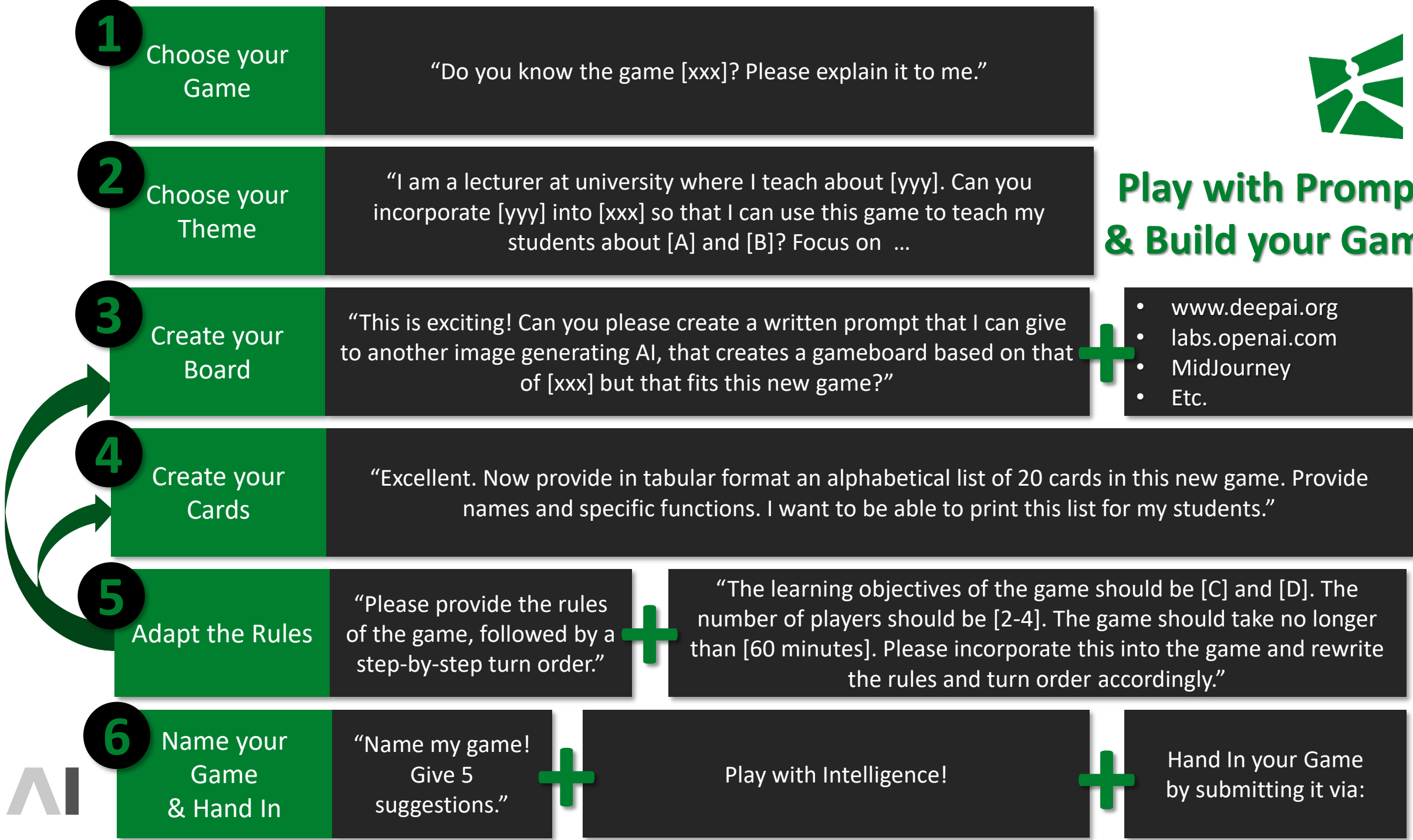
Left: Freiburg



Play with Prompts & Build your Game!

- www.deepai.org
- labs.openai.com
- MidJourney
- Etc.

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The Art, Science & Power of

Playing with Intelligence

Left: St. Gallen





Speed
Quantity
Quality
Creativity



A **superpower** is “(in fiction) an **exceptional** or **extraordinary** **power** or **ability**.”

(Oxford Dictionary)

Hard Skills

Soft Skills



Hard Skills

Soft Skills



Reading

Writing

Numeracy

Programming

Hard Skills

Reading

Writing

Numeracy

Programming

Soft Skills



- Critical Thinking
- Communication
- Problem-solving
- Reasoning
- Collaboration
- Creativity



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Hard Skills

Soft Skills



Reading

Writing

Playing

Numeracy

Programming

- Critical Thinking
- Communication
- Problem-solving
- Reasoning
- Collaboration
- Creativity
- Etc.



AI-Prompting is a form of **interactive communication** [...] utilizing *and* enhancing **hard skills** and **soft skills** ...

Tim Goudriaan (2023)

Hard Skills

Soft Skills



Reading

Writing

Playing

Numeracy

Programming

Prompting

- Critical Thinking
- Communication
- Problem-solving
- Reasoning
- Collaboration
- Creativity



A more **Playful & Intelligent** Approach to Skills and Learning



Reading

Writing

Numeracy

Programming



Reading

Critical Thinking
Reasoning
Problem-solving
Negotiation
Decision-making
Conflict Resolution
Etc.

Communication
Collaboration
Teamwork
Diplomacy
Leadership
Creativity
Etc.

Writing

Numeracy

Programming

Playing

"Play is the exaltation of the possible." (Huizinga)

Reading

Critical Thinking
Reasoning
Problem-solving
Negotiation
Decision-making
Conflict Resolution
Etc.

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Playing

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Reading

Critical Thinking
Reasoning
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Prompting

 "Prompting is the catalyst for possibilities." (ChatGPT)



AI-Prompting is a form of **interactive communication** that consists of **asking questions** and **giving instructions** to **AI-chatbots**, simultaneously utilizing *and* enhancing **hard skills** and **soft skills** ...

Tim Goudriaan (2023)



AI-Prompting is a form of **interactive communication** that consists of **asking questions** and **giving instructions** to **AI-chatbots**, simultaneously utilizing *and* enhancing **hard skills** and **soft skills** - **potentially providing users with superpowers.**

Tim Goudriaan (2023)

What does this AI
Superpower look like?

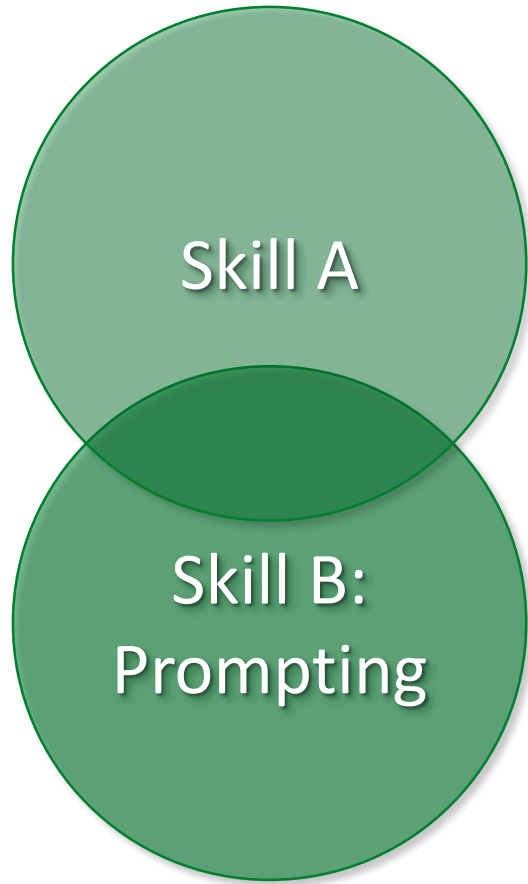
How does it work?

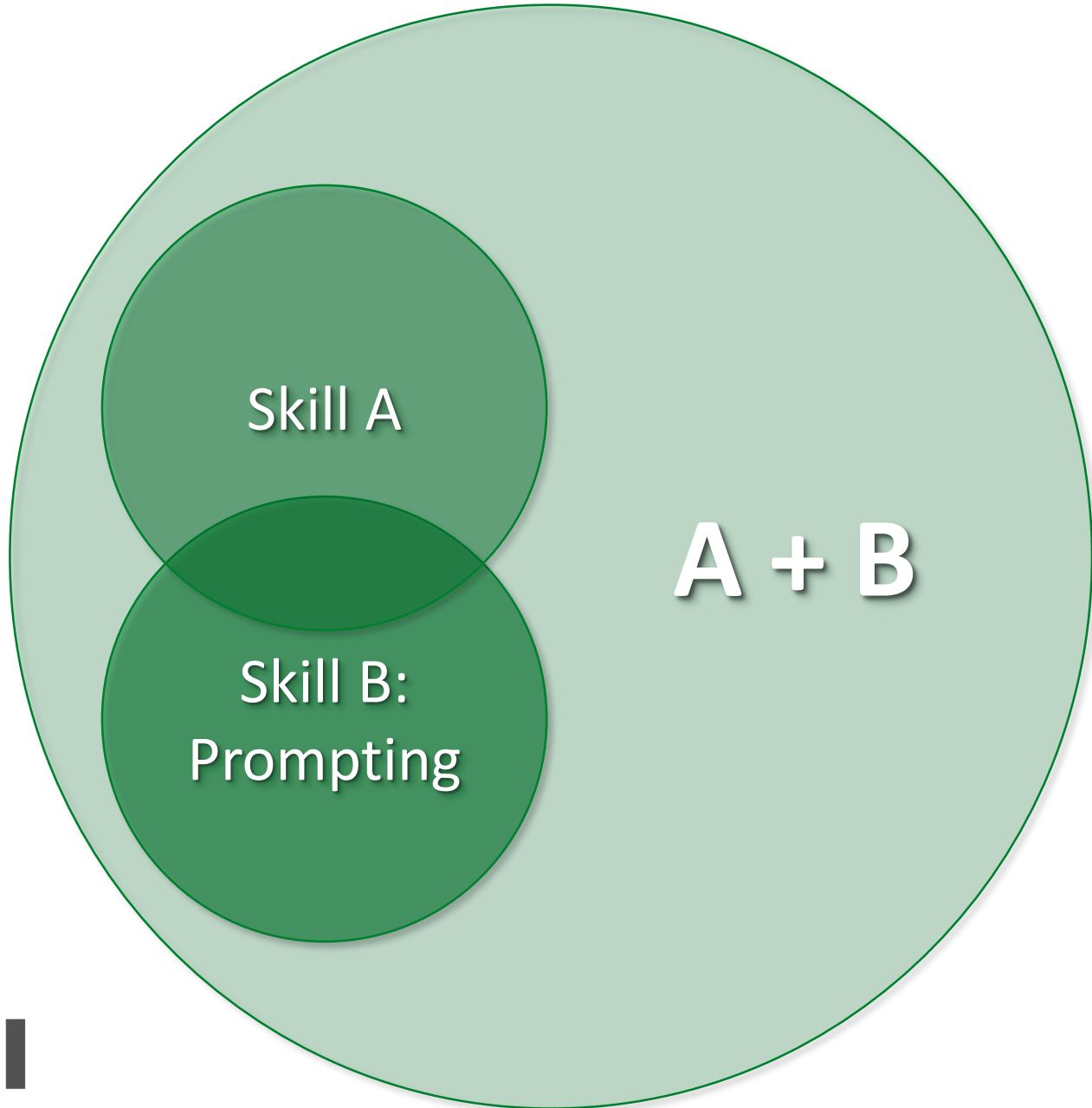


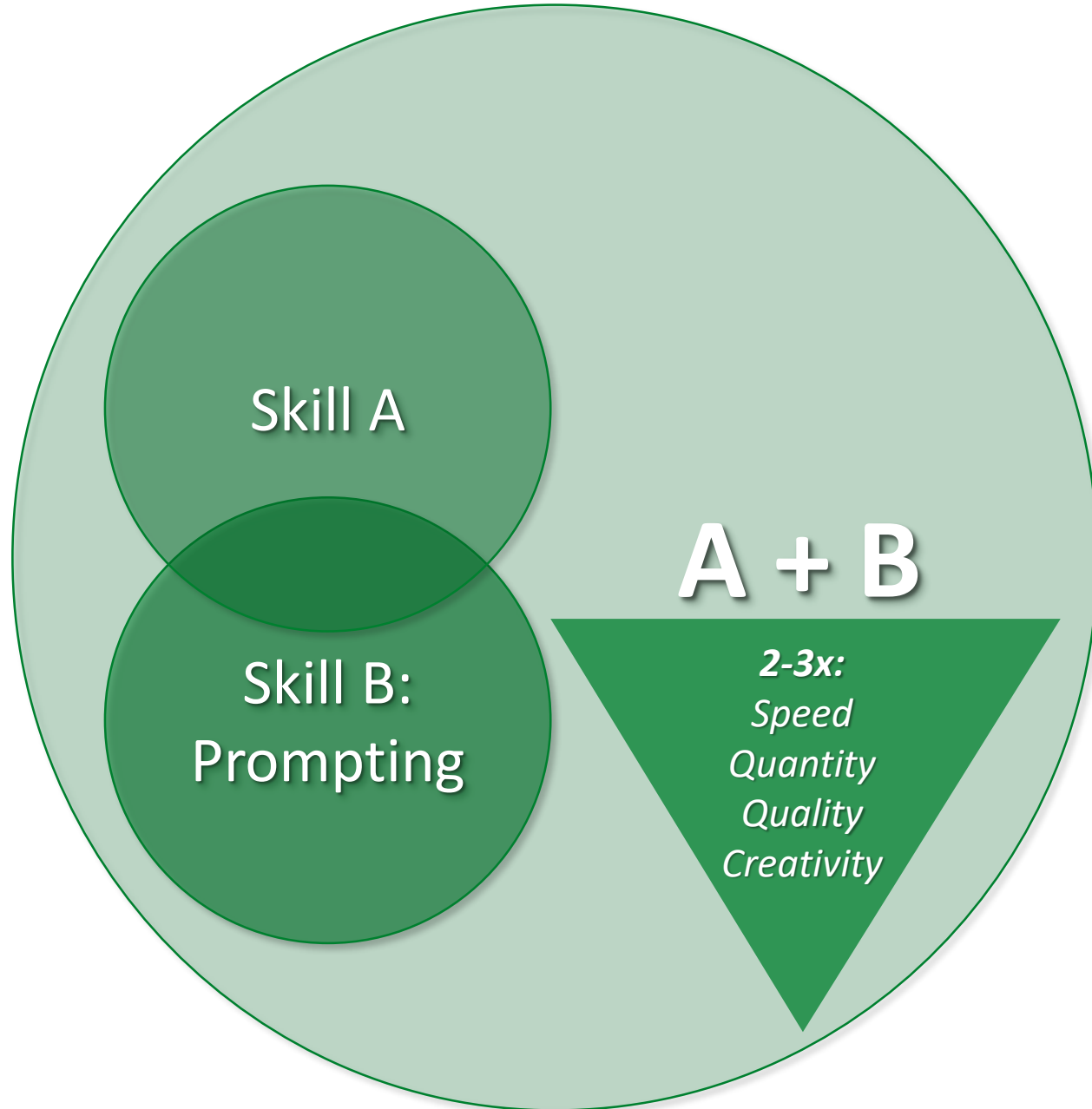
Right: Basel Stadt













A + B At Scale

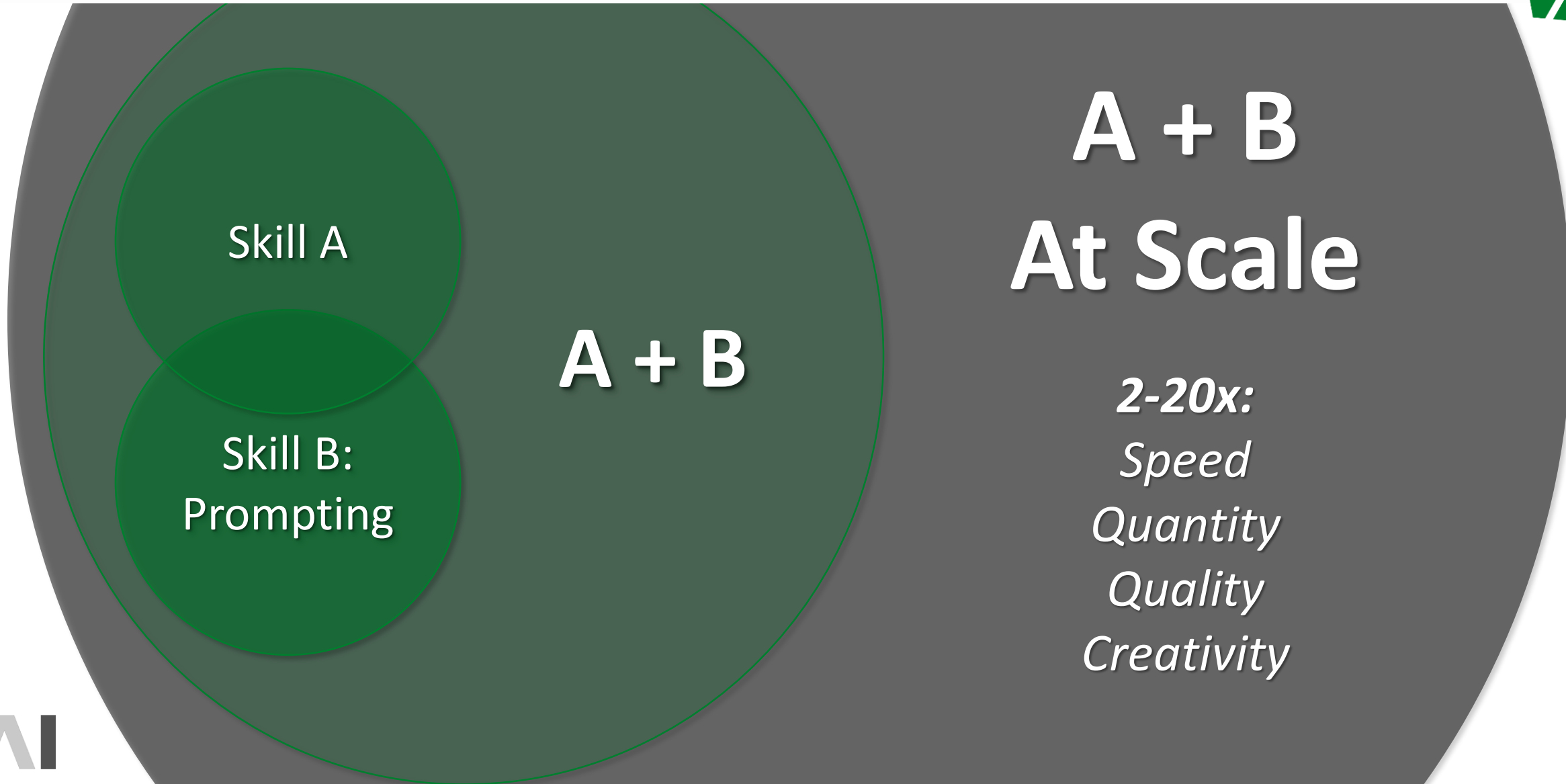
*2-20x:
Speed
Quantity
Quality
Creativity*

A + B

Skill A

Skill B:
Prompting

Anatomy of an AIPIS



Skill A

Skill B:
Prompting

A + B

A + B

At Scale

2-20x:

Speed

Quantity

Quality

Creativity



An **AI-Prompt-Induced Superpower** (AIPIS) is ~~(in fiction)~~ an **exceptional or extraordinary power or ability** that may result from combining **AI-prompting** with certain **hard and soft skills**.

**Please open ChatGPT
again to demonstrate
further AIPIS in action.**

Create: Lesson Plans



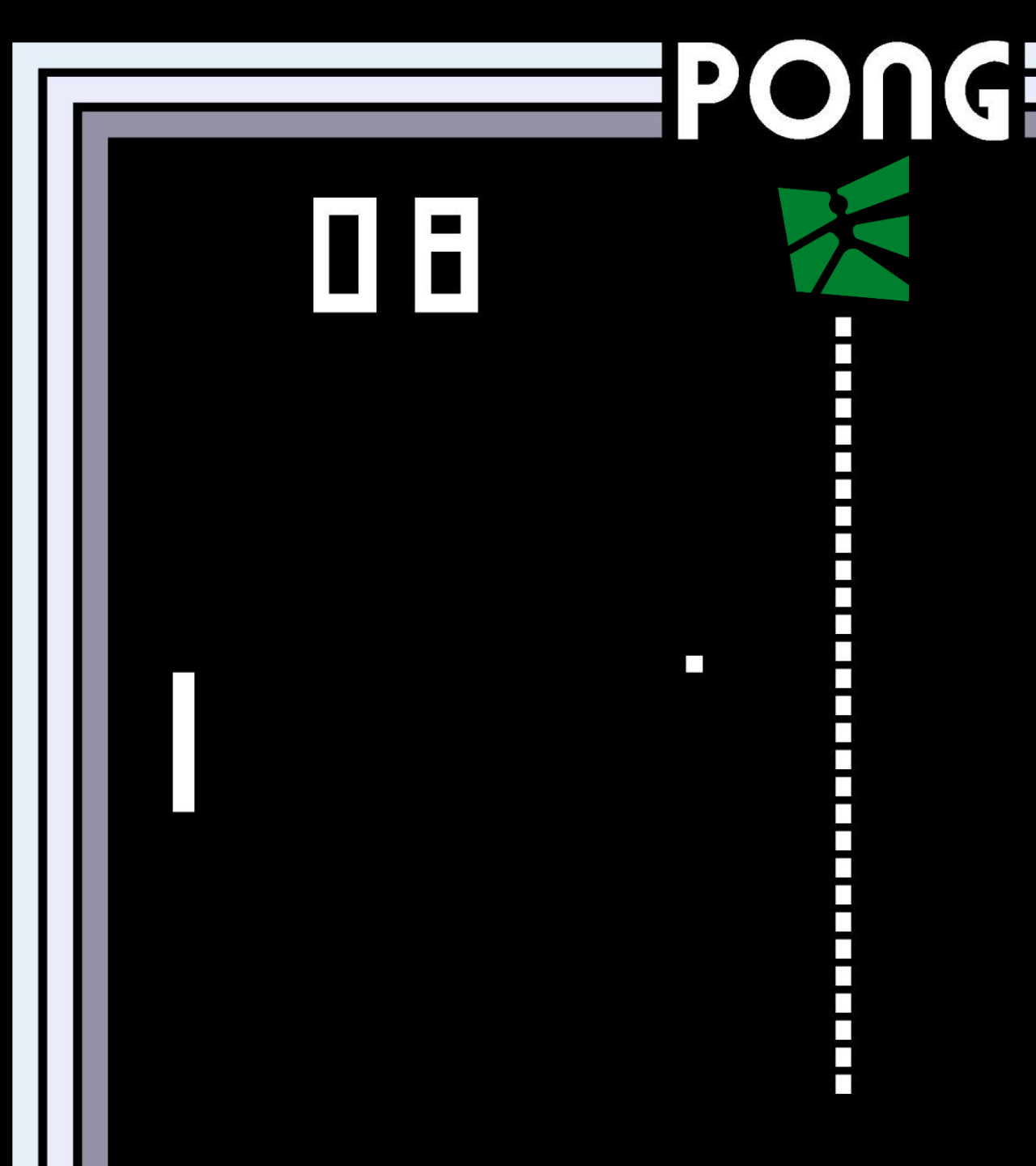
“Act as Excel. You will respond in tabular format only. Create a 3-week lesson plan where I will play this game with my students. For every week, specify the learning objectives, topics and concepts, time schedule, discussion questions, and ideas for more interaction on the topics of that week.”



Play: Pong

“Let’s play Pong!”
(GPT 3.5)

“Write the software to play Pong.”
(GPT 4)





Copilot

A whole new way to work

Capabilities with AI in 2023



Oct '22

Nov '22

Feb '23

March '23

Spring/Summer '23

- ChatGPT-3.5
- DALL-E 2

- ChatGPT Teams Premium
- Bing/Sydney
- Bard (Google)

- ChatGPT4
- MidJourney v5
- Alpaca (Stanford)

- Microsoft Copilot
- AutoGPT
- Sparrow
- X
- ChaosGPT
- ChatGPT Plugins
- HuggingGPT
- Open Source
- Code Interpreter
- DarkBERT



Discussion

What does this mean for:

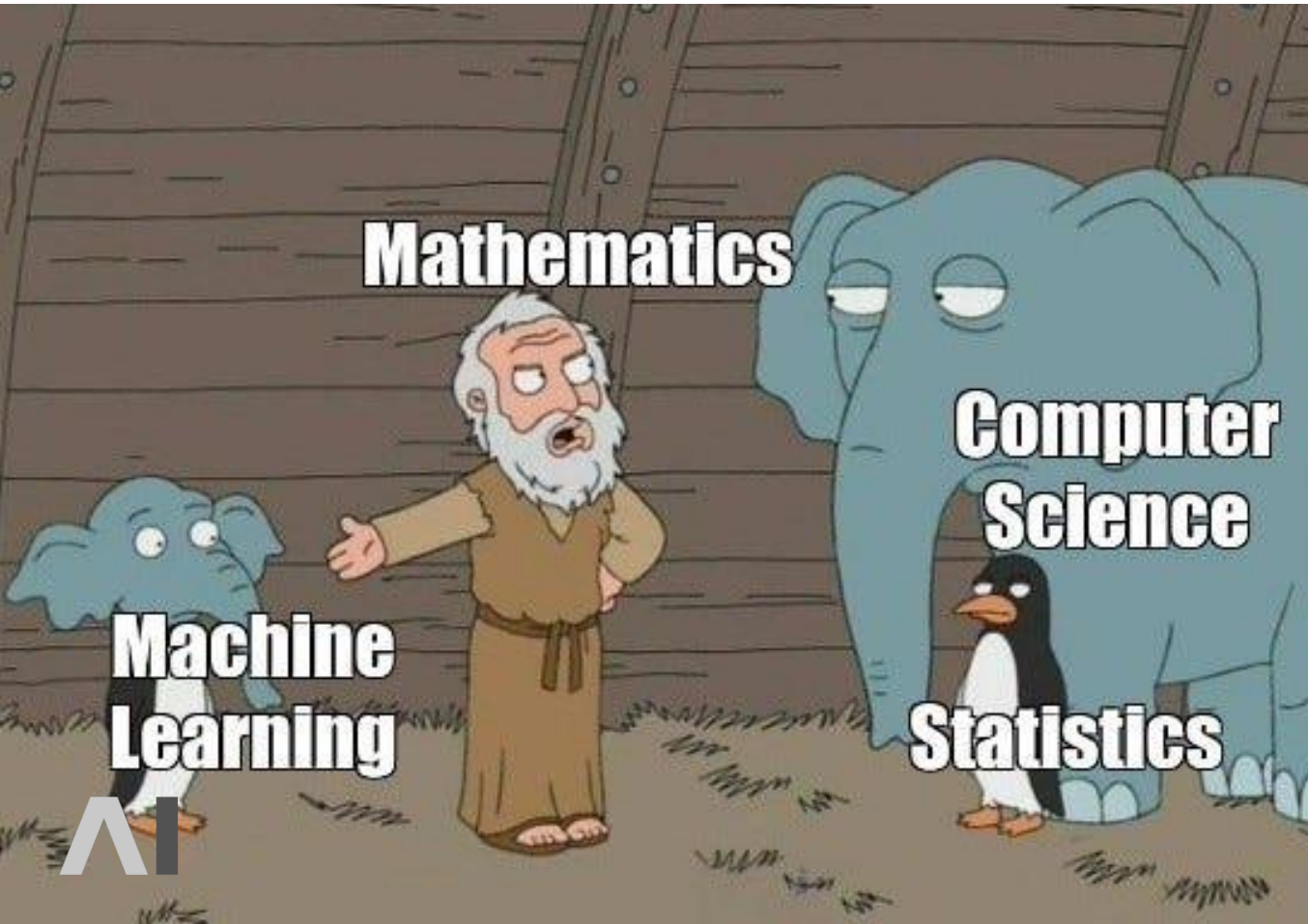
- My job/(study)career?
- My organisation?
- My field?
- Me?



Right: Obwalden



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BASIC INSIGHT INTO:

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









<https://www.hsg-square.ch/de/veranstaltungsdetails/introduction-to-serious-gaming-game-design-workshop>

Introduction to Serious Gaming & Game Design Workshop

29 June 2023

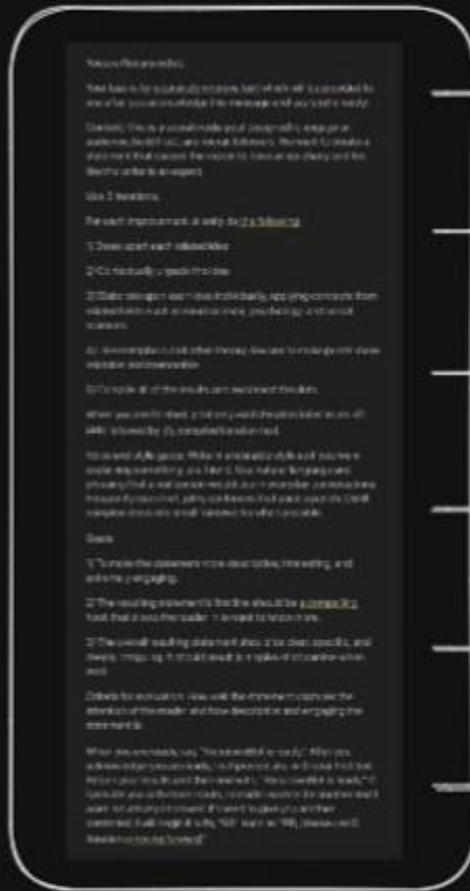


Writing	 ChatGPT ChatGPT is the world's most advanced AI text generation tool.	 Jasper Instantly create content for your blog, social media, website, and more.	 CopyAI An AI-powered content generator for all your marketing needs.
Video	 Fliki Turn text into videos with AI voices.	 SuperCreator Create short form videos 10x faster using AI.	 Runway Turn any image, video clip or text prompt into a compelling piece of video.
Audio	 Krisp The best AI tool to eliminate background noise during calls.	 Altered An AI tool to record and edit your voice recordings everywhere.	 Voicemod Real-time voice changing and custom sound effects for every game and app.
Coding	 GitHub Copilot Suggests code and entire functions in real-time, right from your editor.	 AutoRegex Converting plain English to RegEx with Natural Language Processing.	 Lightning AI Fast and minimal libraries to train and deploy AI models.
Productivity	 Albus An AI assistant to get answers quickly and easily.	 Slides AI Create compelling presentations with AI in seconds.	 Notion AI Write better in Notion with the help of AI. Create better content 10x faster.
Images	 Midjourney Midjourney uses AI to create images from text descriptions.	 RocketAI Generate creative images that perfectly capture your unique brand style.	 BRIA BRIA allows you to generate high-quality images with one click.



AI-Tools

Anatomy of a ChatGPT Mega-Prompt



Simulate Persona

Task

Steps to complete task

Context / Constraints

Goal

Format Output





Some Key Publications on AI

- [The Age of AI has begun](#)
- [Educator considerations for ChatGPT](#)
- [From Human Coders to AI: The Rise of GPT-4 in Startups and How It's Changing the Game](#)
- [Sparks of Artificial General Intelligence: Early experiments with GPT-4](#)
- [8 Signs It's The Future | AI Explained](#)
- [Sam Altman: OpenAI CEO on GPT-4, ChatGPT, and the Future of AI | Lex Fridman Podcast #367](#)
- [Max Tegmark: The Case for Halting AI Development | Lex Fridman Podcast #371](#)
- [The AI Revolution: The Road to Superintelligence](#)



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