

AI-AT-YOUR-SERVICE

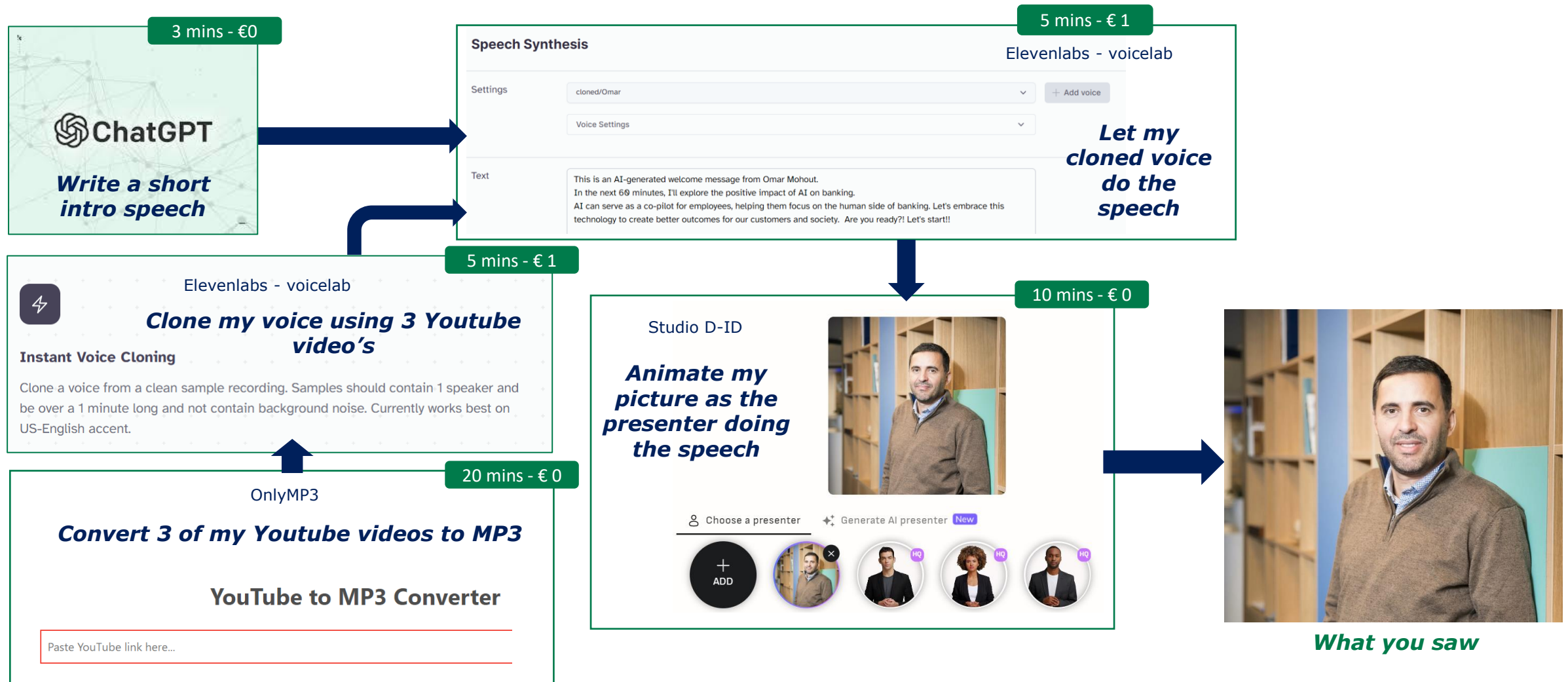
Omar Mohout
Partner, Head of Digital







What did you just experience?



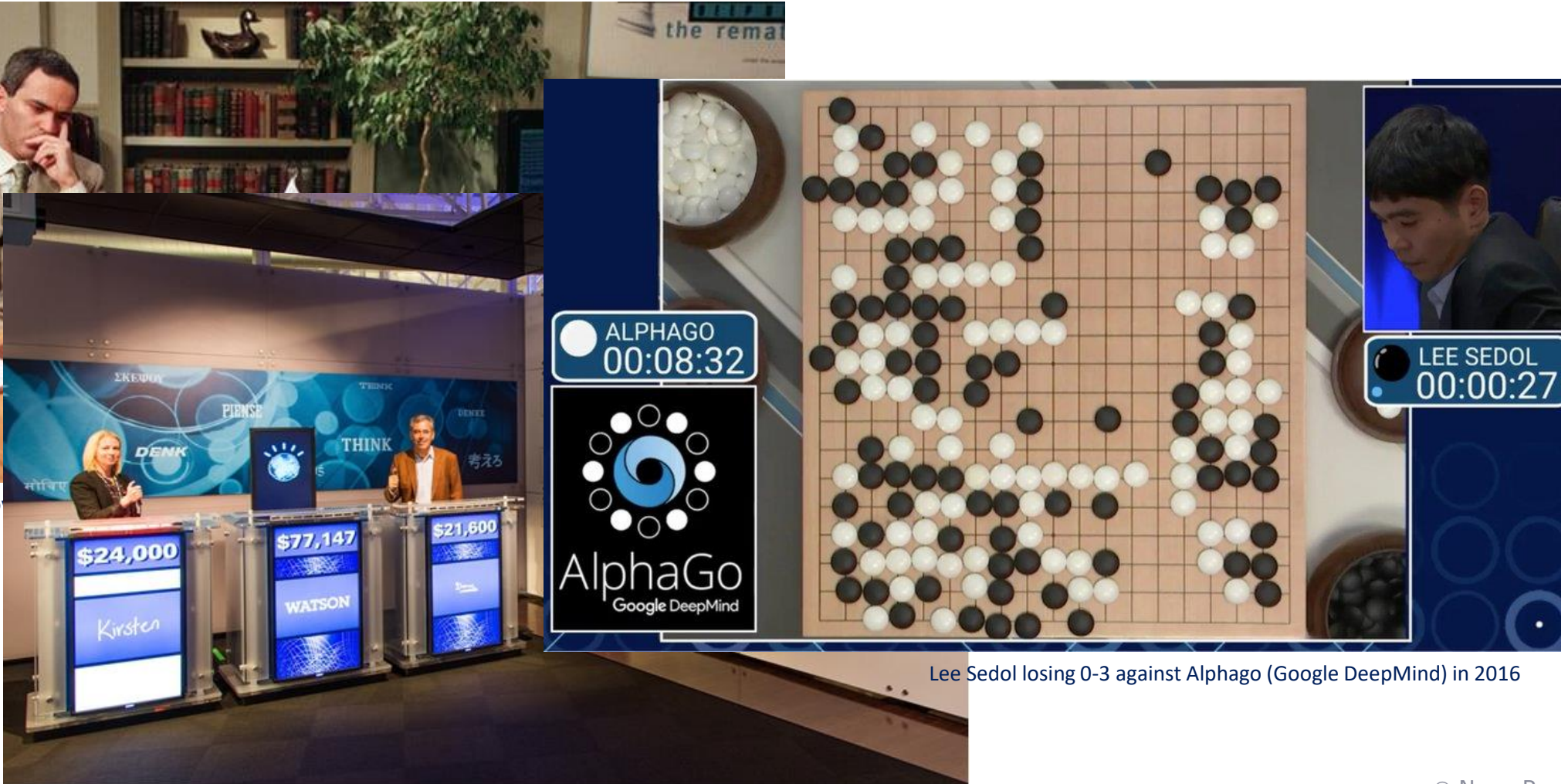
A short history of AI



Deep Blue/Watson (IBM) and AlphaGo (Google DeepMind) showcased the power of AI by defeating human world champions

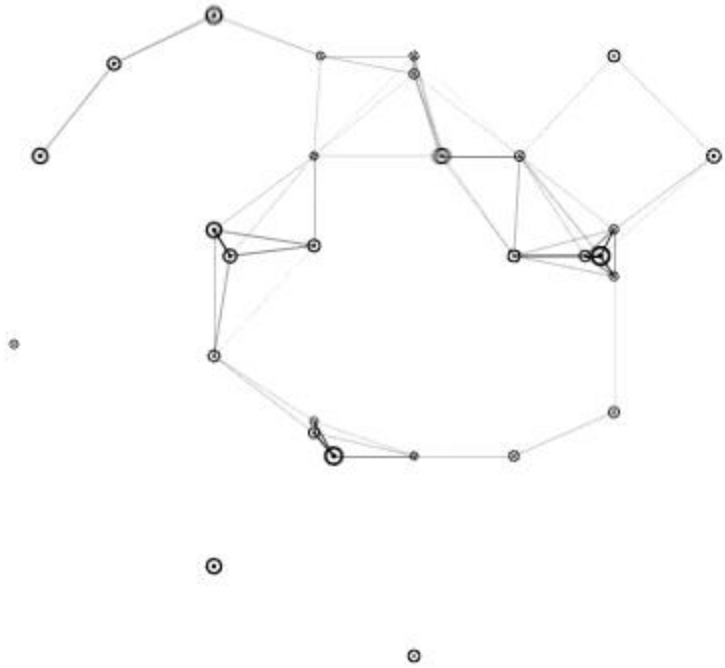


Gary Kasparov



Lee Sedol losing 0-3 against AlphaGo (Google DeepMind) in 2016

Watson winning \$1M price in the Jeopardy! quiz in 2011



Attention Is All You Need

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Abstract

The dominant sequence transduction models are based on complex recurrent or convolutional neural networks that include an encoder and a decoder. The best performing models also connect the encoder and decoder through an attention mechanism. We propose a new simple network architecture, the Transformer, based solely on attention mechanisms, dispensing with recurrence and convolutions entirely. Experiments on two machine translation tasks show these models to be superior in quality while being more parallelizable and requiring significantly less time to train. Our model achieves 28.4 BLEU on the WMT 2014 English-to-German translation task, improving over the existing best results, including ensembles, by over 2 BLEU. On the WMT 2014 English-to-French translation task, our model establishes a new single-model state-of-the-art BLEU score of 41.8 after training for 3.5 days on eight GPUs, a small fraction of the training costs of the best models from the literature. We show that the Transformer generalizes well to other tasks by applying it successfully to English constituency parsing both with large and limited training data.

1 Introduction

Recurrent neural networks, long short-term memory [13] and gated recurrent [7] neural networks in particular, have been firmly established as state of the art approaches in sequence modeling and

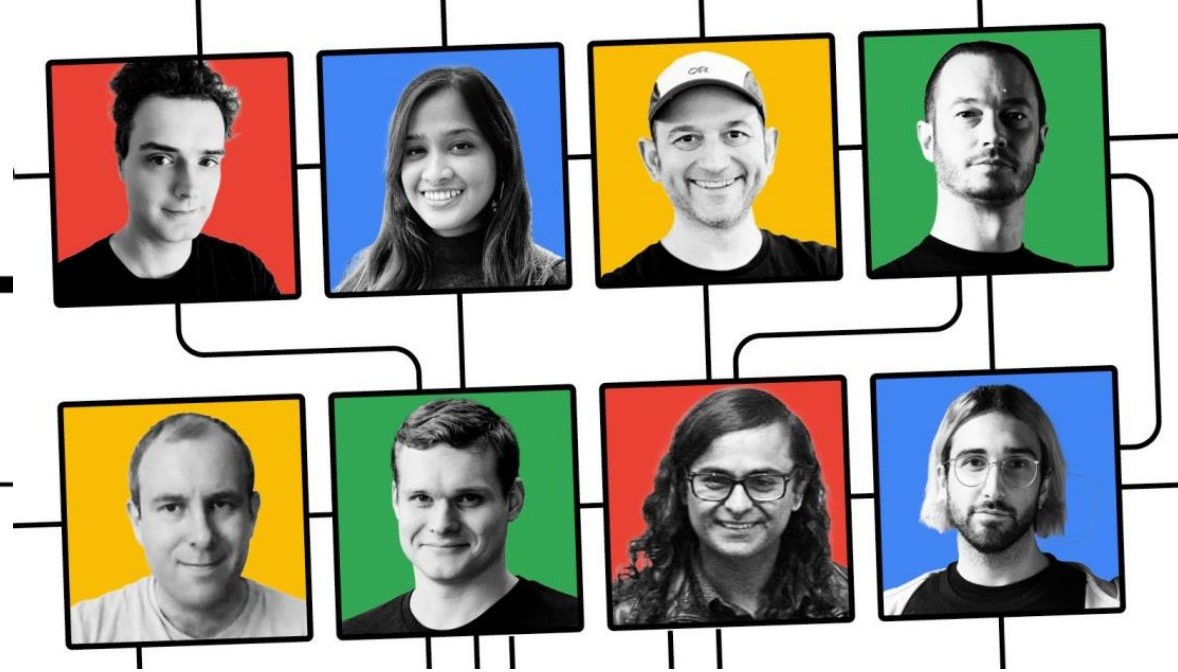
*Equal contribution. Listing order is random. Jakob proposed replacing RNNs with self-attention and started the effort to evaluate this idea. Ashish, with Illia, designed and implemented the first Transformer models and has been crucially involved in every aspect of this work. Noam proposed scaled dot-product attention, multi-head attention and the parameter-free position representation and became the other person involved in nearly every detail. Niki designed, implemented, tuned and evaluated countless model variants in our original codebase and tensor2tensor. Llion also experimented with novel model variants, was responsible for our initial codebase, and efficient inference and visualizations. Lukasz and Aidan spent countless long days designing various parts of and implementing tensor2tensor, replacing our earlier codebase, greatly improving results and massively accelerating our research.

†Work performed while at Google Brain.

‡Work performed while at Google Research.



Attention Is All You Need



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OpenAI



Text-to-image revolution

**Dall-E, Mid-Journey,
Stable Diffusion...**



Sam Altman  @sama · Apr 6, 2022



DALL·E 2 is here! It can generate images from text, like "teddy bears working on new AI research on the moon in the 1980s".

It's so fun, and sometimes beautiful.

openai.com/dall-e-2/



 84

 1,298

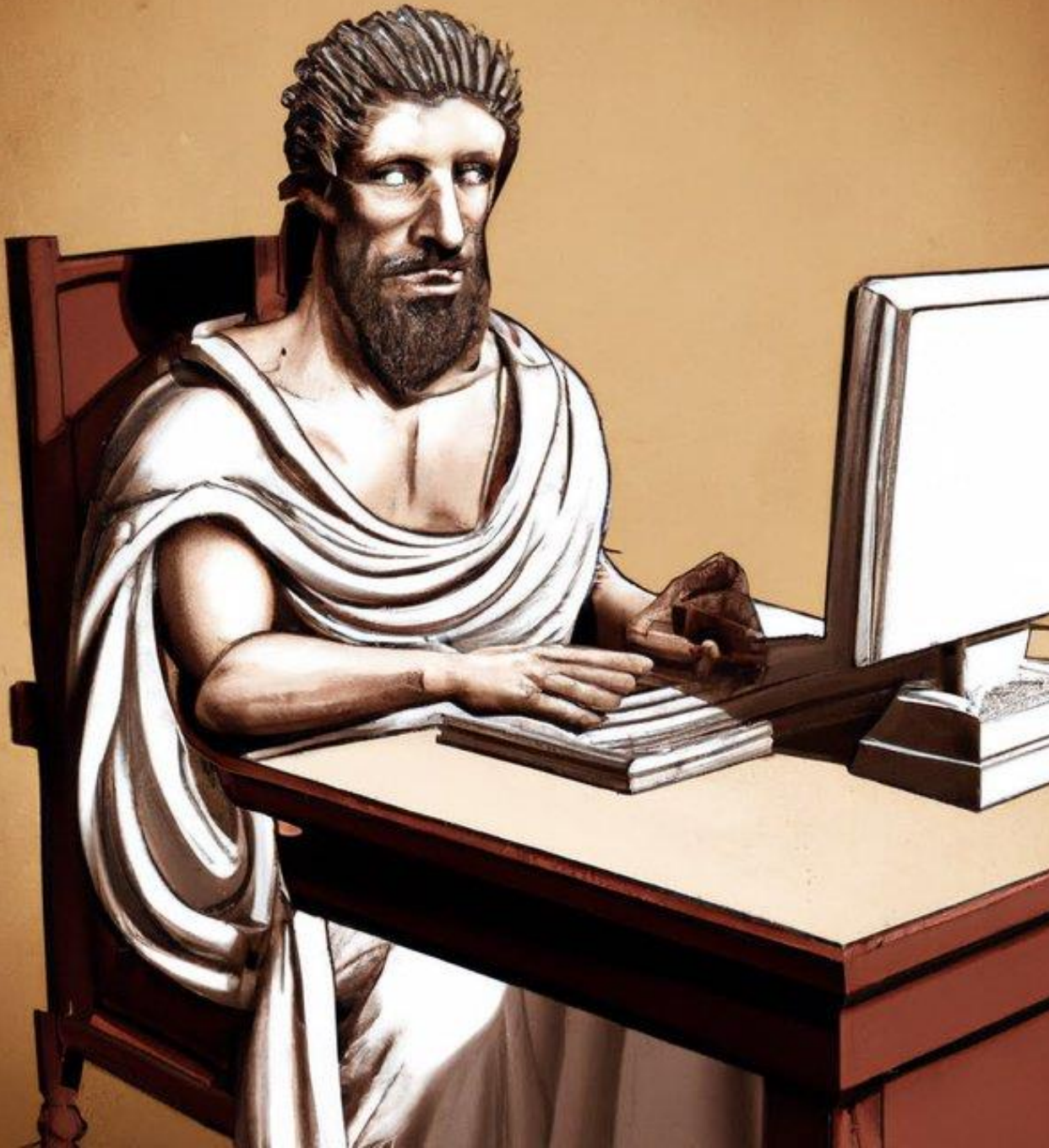
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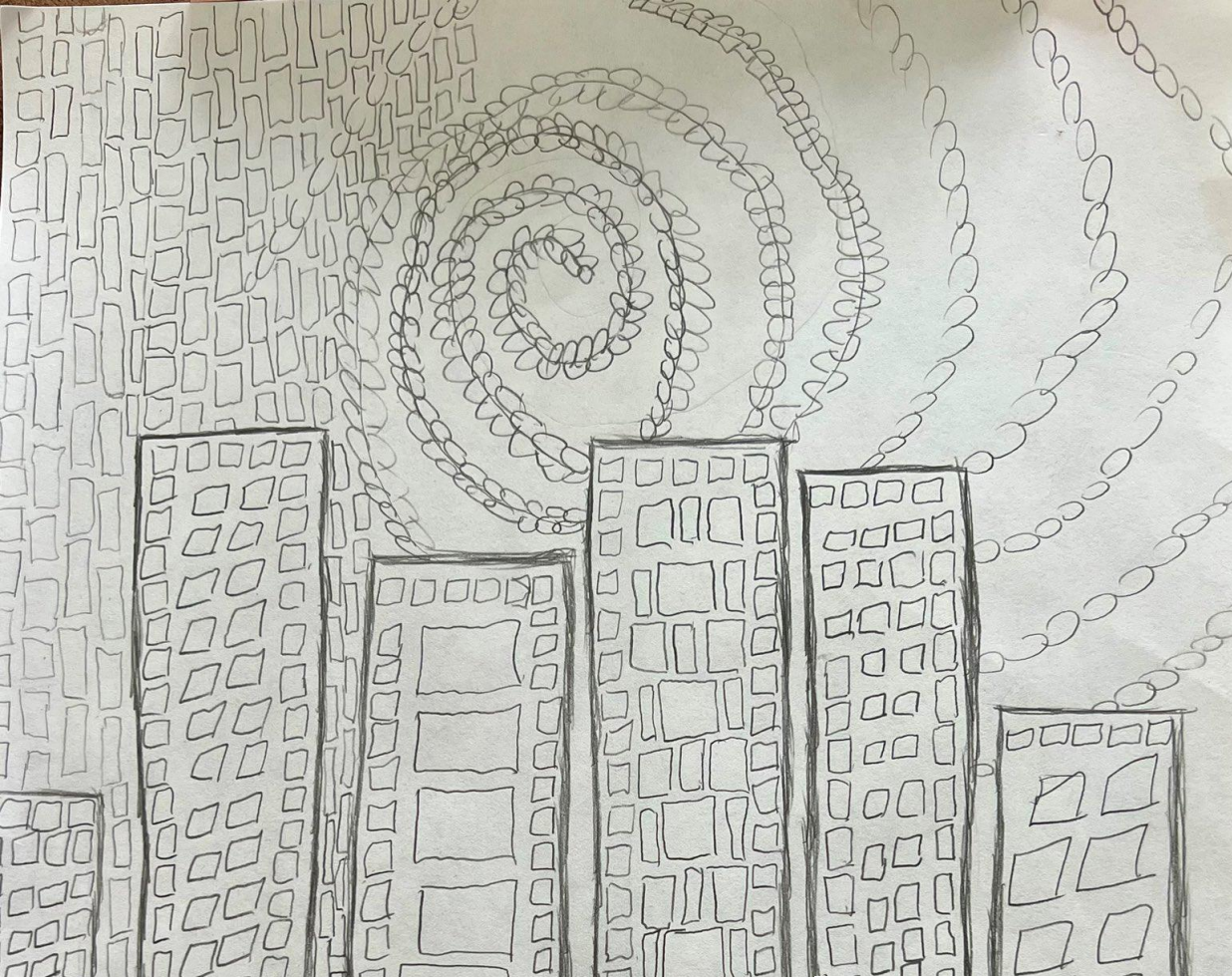
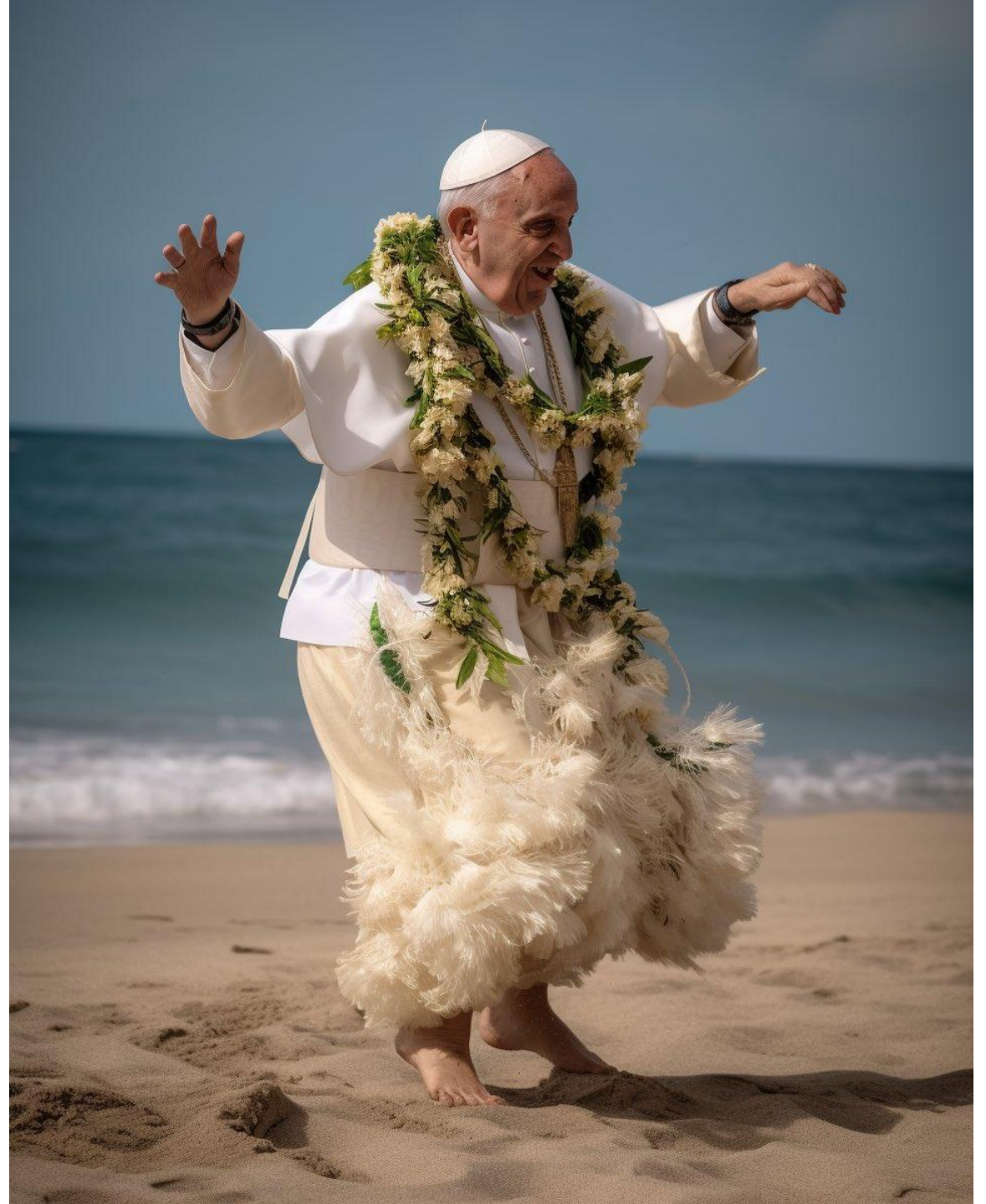


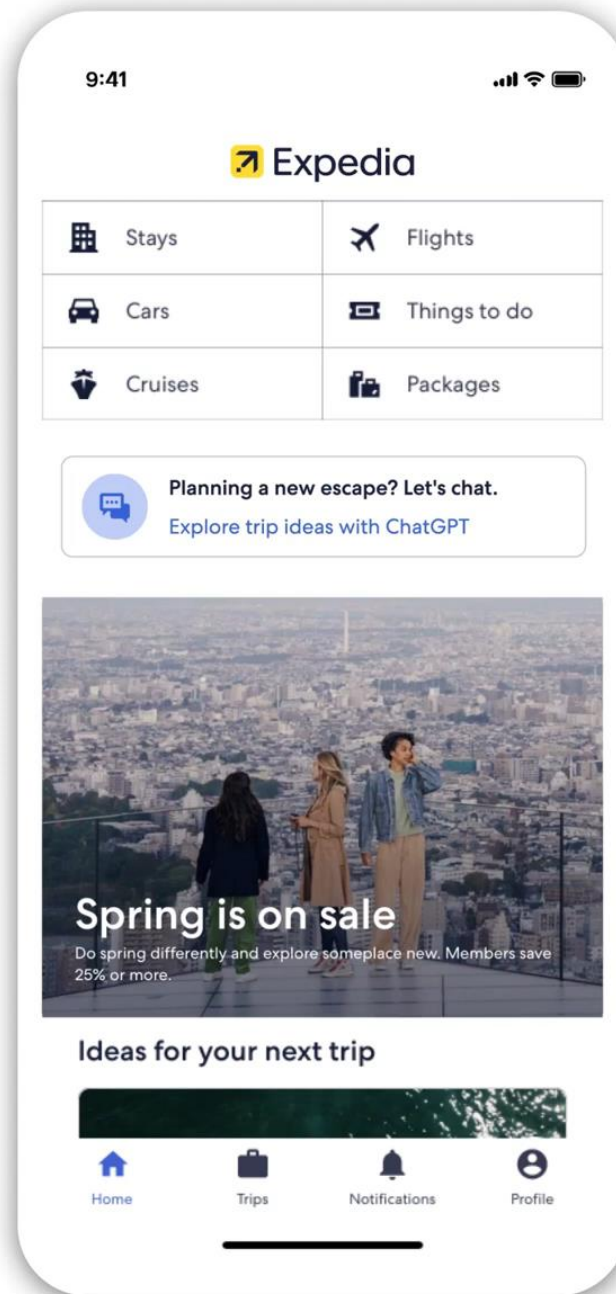
Image description

Colorful sketch of the city, in the style of op art influence, atmospheric skies, elaborate facades, made of wire, spirals, concrete, new york school --ar 79:104

Pope Francis dancing
Hula at the beach
wearing a grass skirt
and flower lei

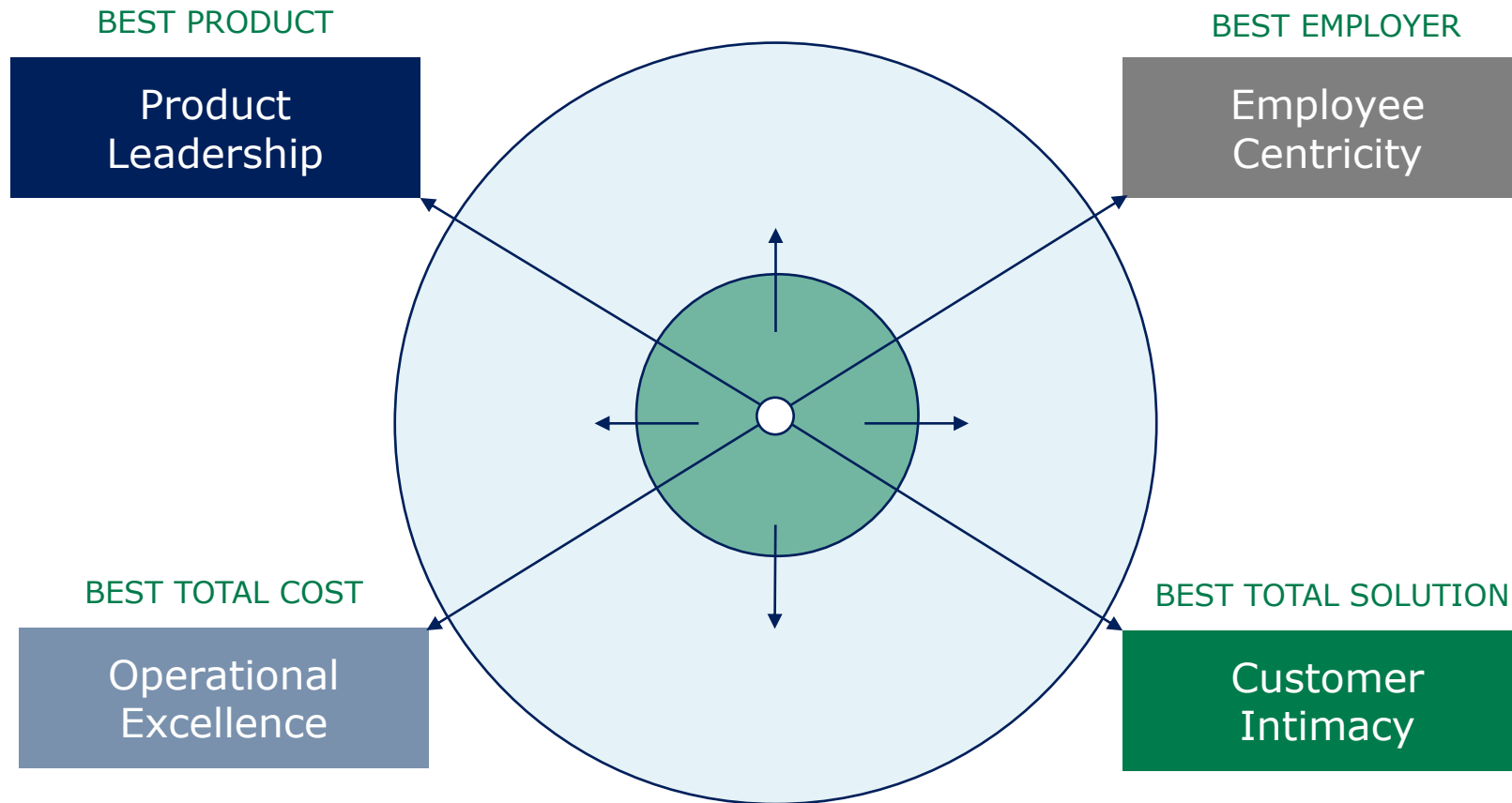
Canon EOS R camera
with a 50mm f/ 1. 8
lens, f/ 2. 2 aperture,
shutter speed 1/ 200s,
ISO 100 and natural
light, Full Body, Hyper
Realistic Photography





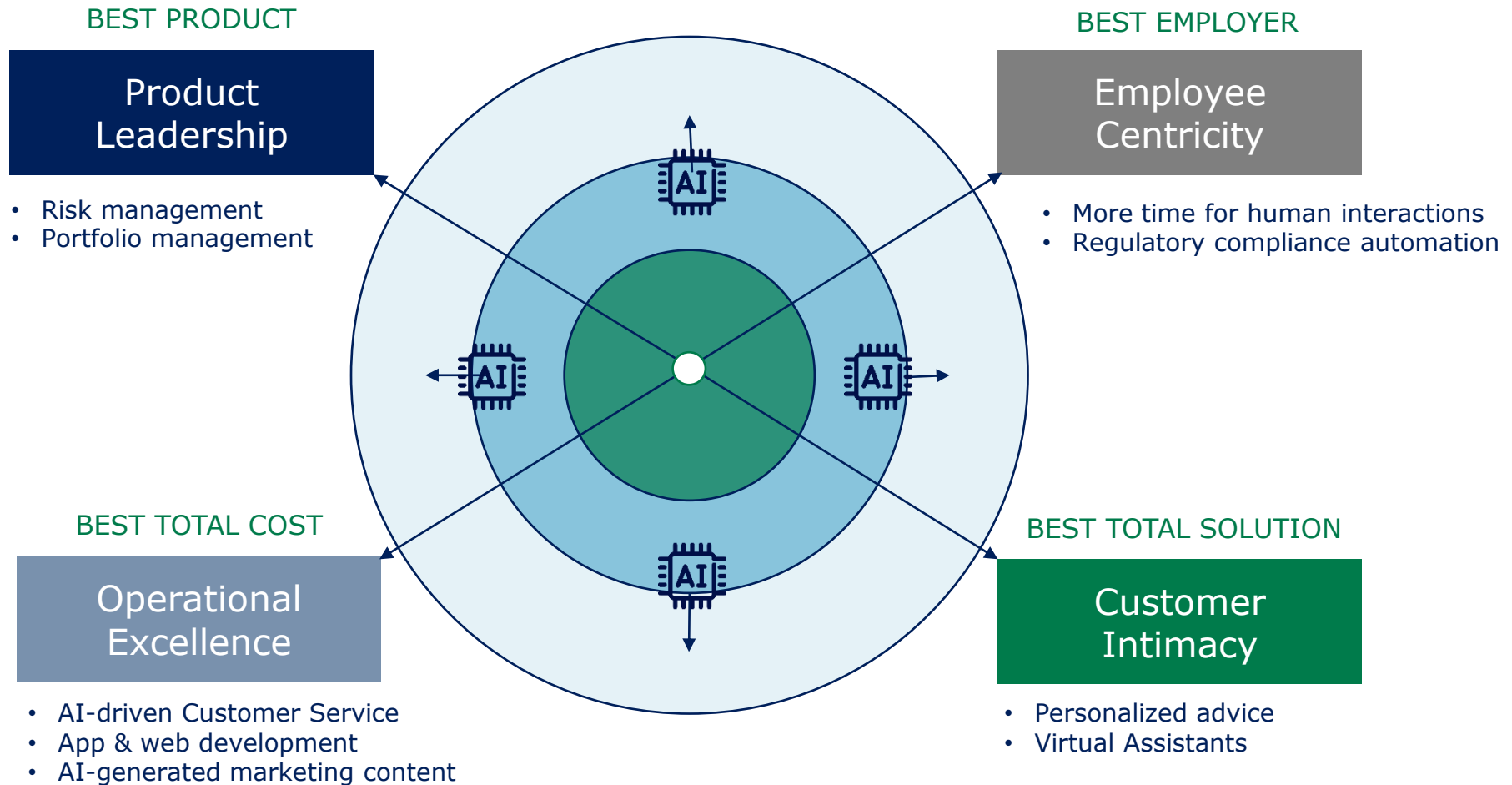


Businesses have seen increased expectations on standards, forcing them to play on more fields if they want to stay competitive





AI will enable companies to perform on all these 4 fields





“ Everyone overestimates how much AI will **replace** humans, and underestimates how much AI will **empower** humans



“ No one in this room
will be replaced by AI
– but by someone
who is better with AI

What other companies are doing

The image shows the Morgan Stanley logo in large, three-dimensional, metallic letters mounted on a dark, vertically-paneled building facade. The letters are illuminated from below, casting a soft glow and creating a slight shadow on the wall. The perspective is from a low angle, looking up at the building, which makes the logo appear prominent and imposing. The sky in the background is a clear, pale blue.

Morgan Stanley

A chatbot powered by OpenAI is being tested by Morgan Stanley's 16,000 financial advisors



FinChat.io v1.1

+ New Chat

Coverage

Chats

Search Coverage

This list shows the 750+ companies you can currently ask FinChat about.



Apple Inc.



Microsoft Corporation



Alphabet Inc.



Amazon.com, Inc.



Berkshire Hathaway Inc.



NVIDIA Corporation

Sign Up

Welcome to FinChat

Finchat.io is the ChatGPT for Finance. Using AI, FinChat generates answers to questions about public companies and investors. To generate accurate answers, FinChat provides reasoning, sources and data.

Summarize Microsoft's Q2 2023 quarterly report with a focus on the cloud business. Include transcript





DEMO



Embracing AI: A shared roadmap for Success



1. Strategize and Understand Business Objectives
 2. Conduct a Data Audit
 3. Choose the Right Tools and Platforms
 4. Create a Cross-Functional Team
 5. Adopt a Test-and-Learn Approach
-



6. Always put humans first
7. Playing = learning
8. Trust, but verify
9. You're the pilot, AI is the co-pilot
10. Figure out the impact on your customers



Learn to use AI and find the right tools to set yourself up for success

- Basic introduction to A.I. elementsofai.com
- Learn prompting learnprompting.org
- Largest AI tools directory: www.futurepedia.io
- Non-tech intro to A.I. course www.coursera.org/learn/ai-for-everyone
- Extensive introduction to A.I. www.udacity.com/course/intro-to-artificial-intelligence--cs271
- Machine Learning www.coursera.org/learn/machine-learning
- Python www.youtube.com/watch?v=_uQrJ0TkZlc&t=2278s

More questions on how to make AI work for you?

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Nova Reperta in a nutshell

Who?

A core team of **over 60 FTEs**, supported by a wide **network of 100+** global functional/industry **experts** and a smart **ecosystem**

What?

Nova Reperta is a **management consulting boutique** focusing on '**Strategy Deployment**'
= from '**Strategy Validation**' to '**Strategy Execution**'.

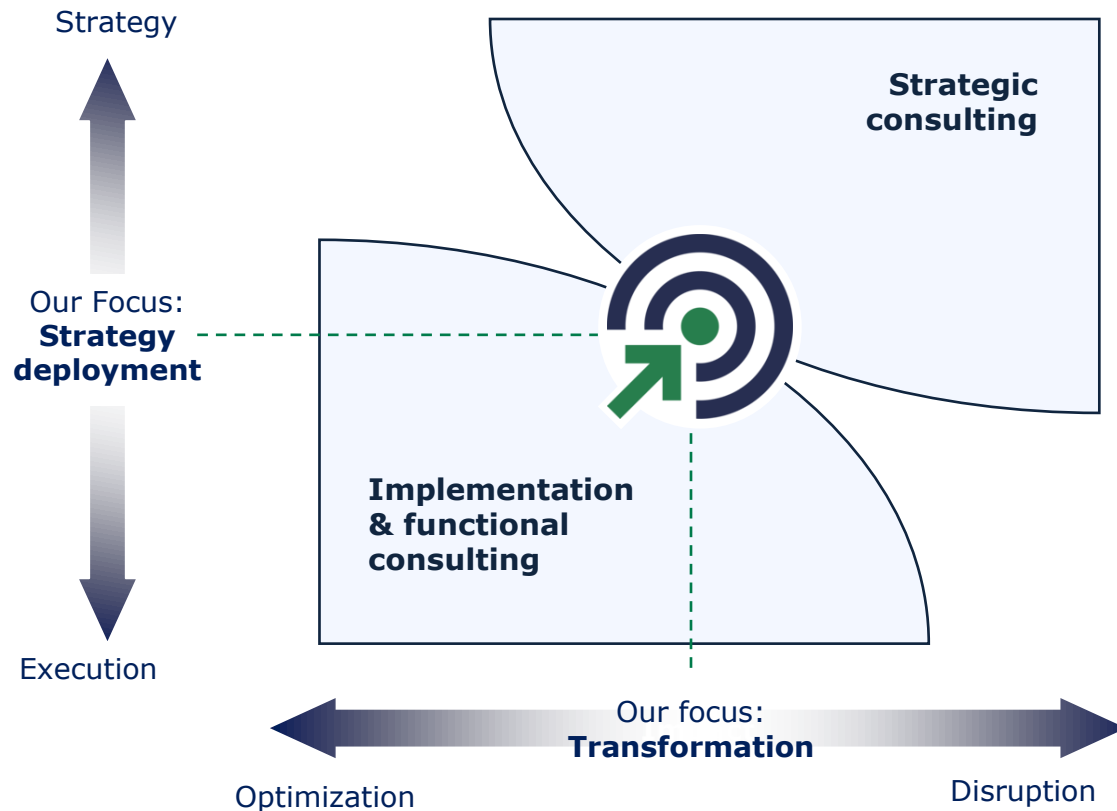
We architect and help execute **company-wide transformations** to make them **future proof**
= **profitable, digital, happy clients & employees**,... with a positive **contribution to society**

How?

Years of **expertise** among our ranks, yet with **different DNA** than our competitors...
...complemented by a **smart ecosystem**, to respond to our clients' challenges – end-to-end.



We have a distinctive positioning in the consulting market



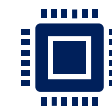
Top & Down – A hands-on approach “from the trenches to the boardroom”, connecting top to bottom



Hard & Soft – We provide skills applicable to all functions, and covering ‘hard’ and ‘soft’ elements of change management → € impact + capability building



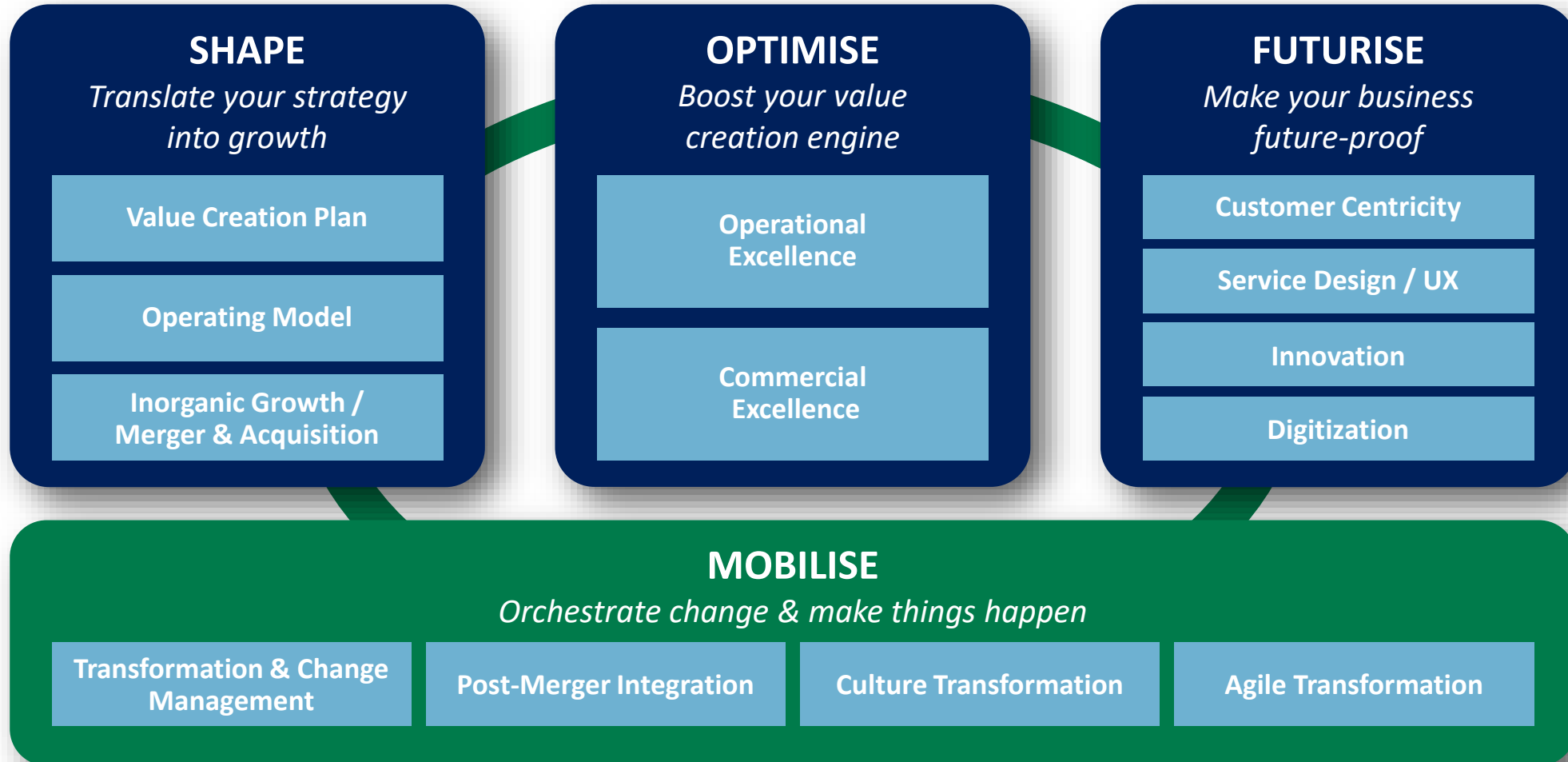
Frontside vs. Backside – We have an eye for connecting front-stage (Customer-Centric functions) and back-stage (Operations)



Digital savvy – Our consultants are capable of fully exploiting digital as the key enabler for your organization’s growth



We propose a range of services enabling your **strategic deployment** from **A to Z** – from **validation** to **execution** ...





5 core values we live by while helping companies



#WeAreNovaReperta

1 ENTREPRENEURIAL

2 PRAGMATIC

3 INCLUSIVE

4 TRUSTWORTHY

5 ALWAYS EXPLORING



Nova Reperta is led by a group of partners with diverse backgrounds supported by a well-balanced team with a high degree of seniority



François Barbellion

- 20+ years of experience in driving corporate change programs and making change stick.
- Founding Partner of Nova Reperta
- He has specific experience in leading large-scale transformations, across a variety of industries and functions, in both blue- and white-collar environments.
- Francois is an engineer with an MBA from London Business School.



François Delfosse

- 20+ years of experience in consulting, business and Lean transformations
- Founding Partner of Nova Reperta
- Key areas of expertise include designing, delivering and steering Transformation Programs (500-2000 FTEs) across various industries and functions
- Ir Micro-Electronics, Université Catholique de Louvain.



Filip Leflot

- 20+ years of experience in consulting, private equity, finance, M&A and General Management
- Founding partner of Nova Reperta, co-lead of 2 investment funds
- Key areas of expertise include strategy design & implementation, financial and operational advisory, coaching of top management
- Previously, Partner at private equity-fund Bencis Capital and COO of AS Adventure Retail Group



Nick Dieltiens

- 20+ years of experience in business transformations, lean management, customer design & CX, change and program management
- Founding Partner of Nova Reperta, co-lead of the Nova Reperta Customer Centricity practice
- MBA Vlerick, General Management & master Handelswetenschappen



Eljakim Caus

- 20+ years of experience in strategy consulting, merger management and large-scale lean transformations.
- Co-owner of an eco-friendly venture
- Partner of Nova Reperta, co-lead of Value Creation Plan practice
- Eljakim holds a master in civil engineering from TU Delft



Omar Mohout

- 8 years of experience in digital transformation and deployment of go-to-market strategies for high growth companies
- Relevant experience in developing and executing buy, build and ally strategies for +100 software companies to seek to grow internationally
- Recognized hands-on expert and thought leader in the Belgian scaleup ecosystem with a broad network in the European tech scene