



Finansforbundet AI, hvad der er og hvad det betyder for medarbejdere i banker

17 April, 2024

Bent Dalager Partner, KPMG NewTech



Image by OpenAI ChatGPT



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firmas afbilde

Mød mig... eller min replikant



Bent Dalager

Partner, Nordic Head of KPMG NewTech

- Global Head of KPMG Quantum hub
- Head of Innovation at KPMG Denmark
- MSc Computer Science and AI
- BSc Mathematical Economics
- CD Business Administration
- + Harvard and MIT studies

AI arbejde for Dansk Bank, Nordea, PFA Pension, AP Pension Erhvervsstyrelsen, Nykredit, Nets etc.

Podcast host: TechTalk KPMG (om AI)

Fintech/AI Committee member @Finanstilsynet

Underviser I AI på CBS Board Education and at INSEAD Exec MBA

Head of IT-branchen NewTech Policy Board

Digital Visperson på Academy of Science

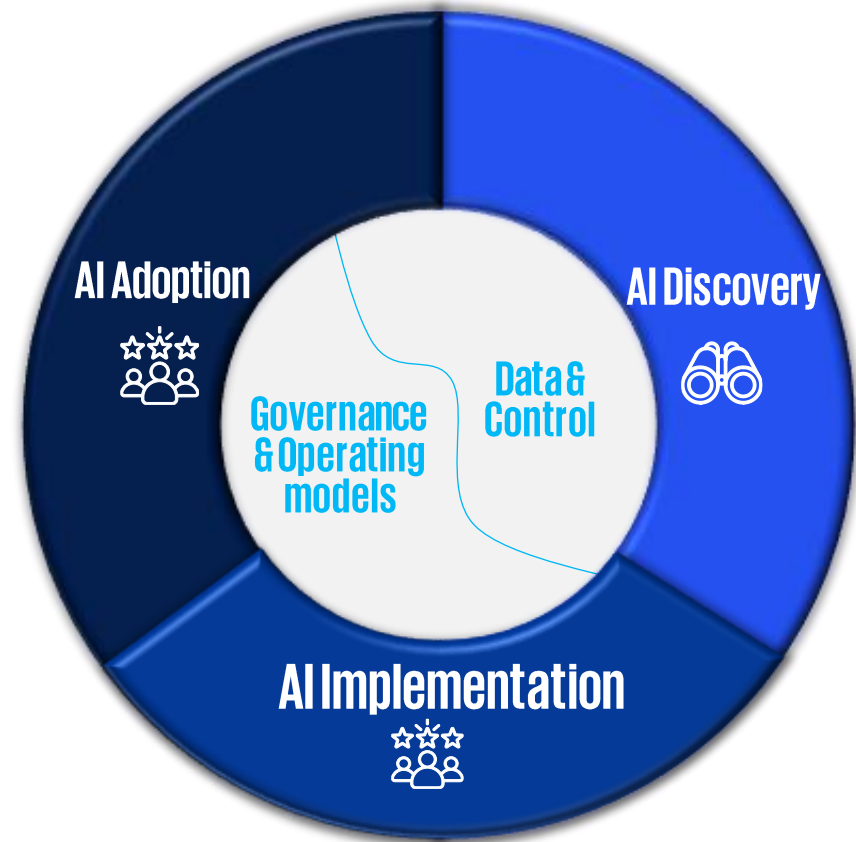
Founder of det faglige data-etiske råd

Co-Founder og Board for Danish Quantum Community



KPMG NewTech

Vi ændrer måden organisationer arbejder på via data og AI



I dag vil jeg bevare 4 essentielle spørgsmål om teknologiens udvikling og fremtidens arbejdsmarked:



Hvad består det nye AI-landskab af?



Hvordan vil AI forandre arbejde i banker?



Hvilke nye kompetencer vil der blive behov for?



Hvordan klæder man sig på til fremtidens forandring?

Stil spørgsmål på

slido.com

#3620 557



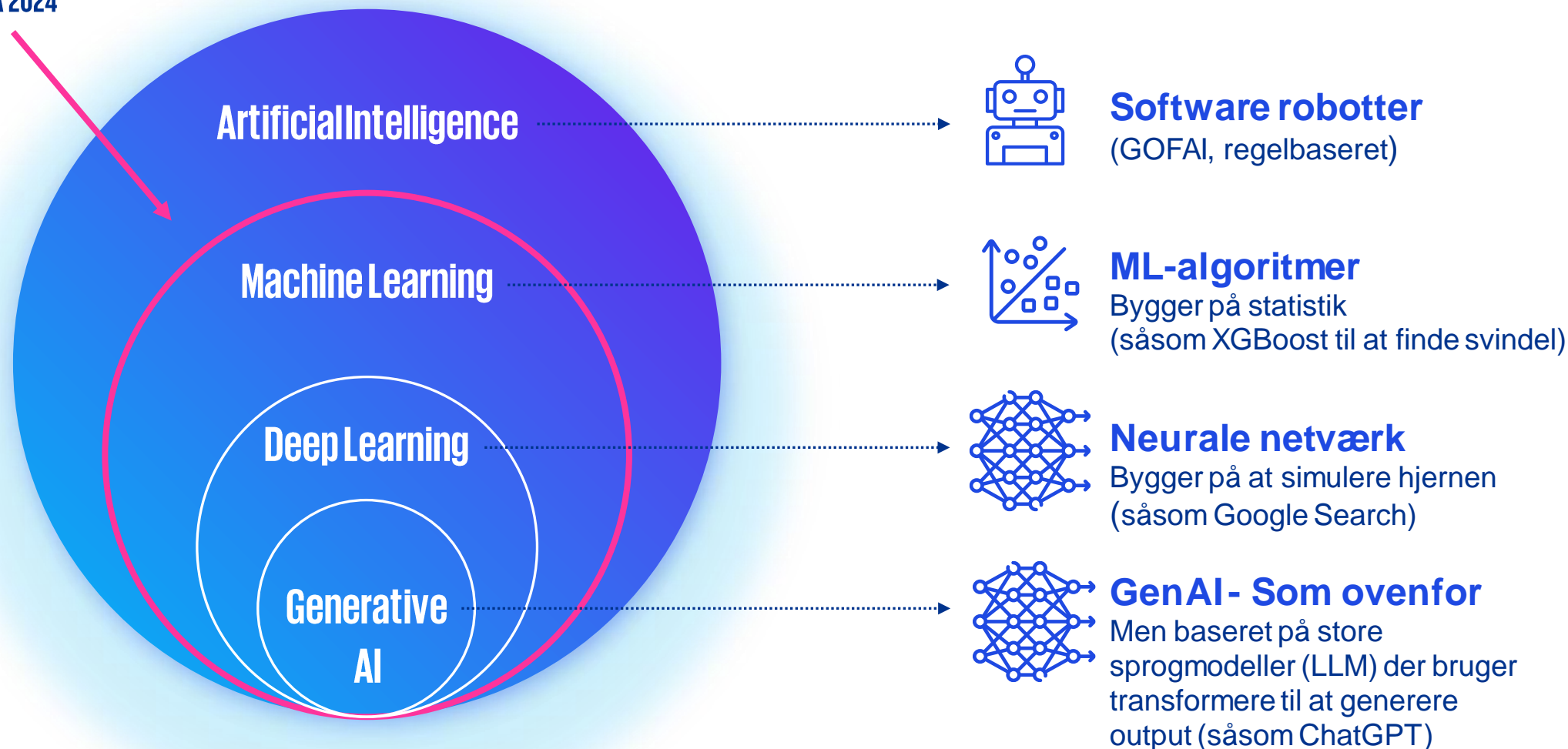
01 Hvad består det nye AI-landskab af?

KPMG



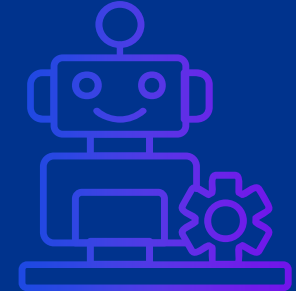
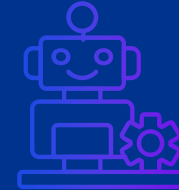
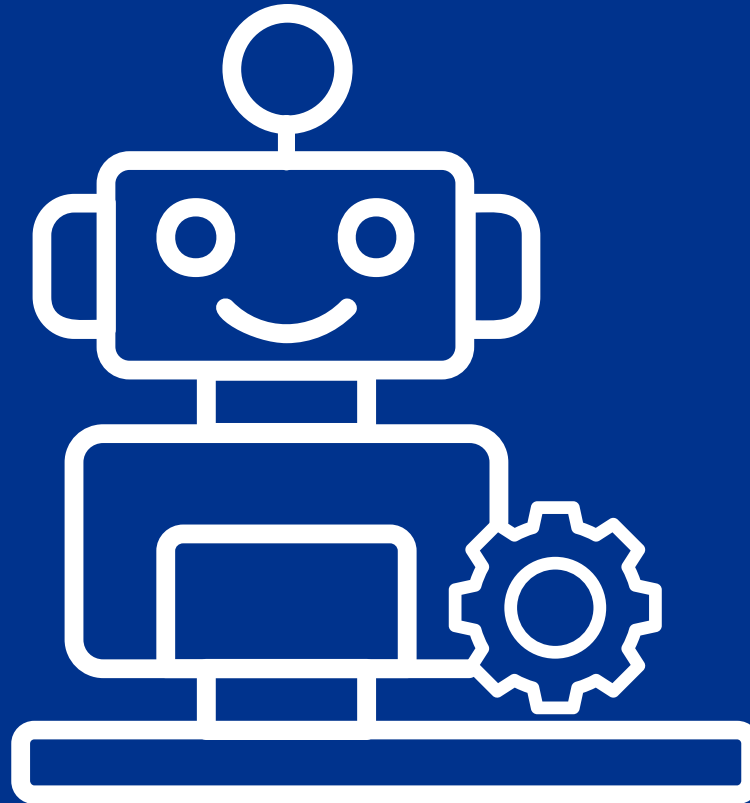
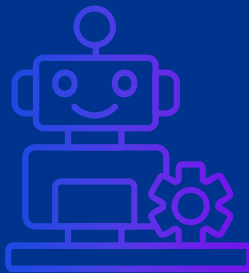
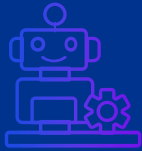
Ifølge EU er AI: "et maskinbaseret system, som er udformet med henblik på at fungere med en varierende grad af autonomi..."

EU, AIA 2024

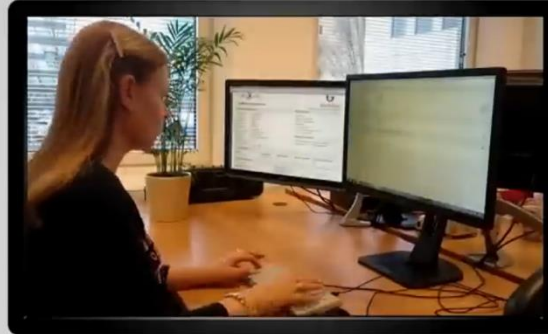


"AI-system": et maskinbaseret system, som er udformet med henblik på at fungere med en varierende grad af autonomi, og som efter ibrugtagning kan udvise en tilpasningsevne, og som til eksplicite eller implicite mål af det input, det modtager, udleder, hvordan det kan generere output såsom forudsigelser, indhold, anbefalinger eller beslutninger, som kan påvirke fysiske eller virtuelle miljøer

Kontor robotter – eller RPA (Robotic Process Automation)



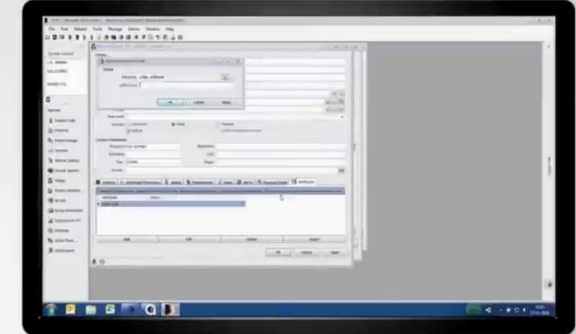
RPA er ideel til alle gentagne opgaver: Indhentning af data fra forskellige kilder og udførelse baseret på regler: økonomi, HR, indlån/udlån, onboarding, KYC, etc..



Human Input



04 : 08 min



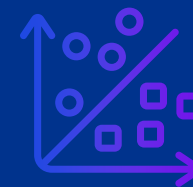
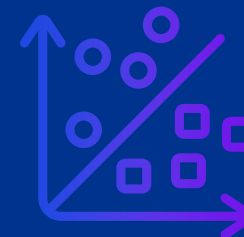
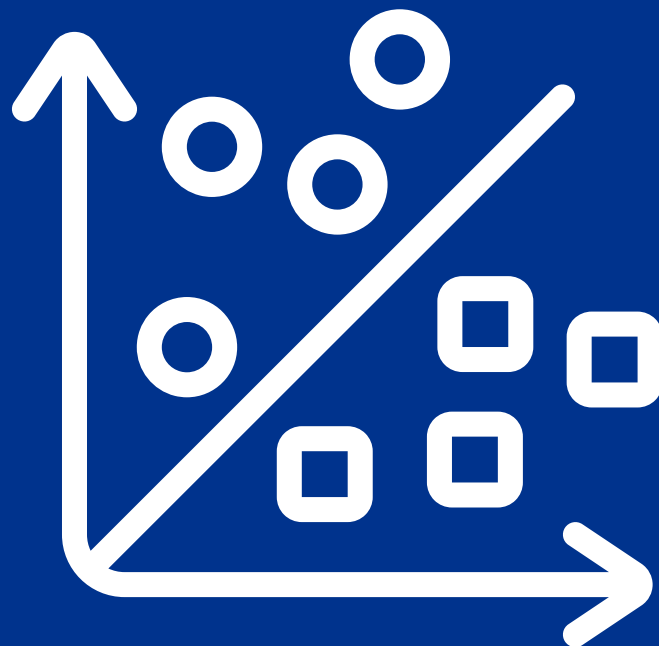
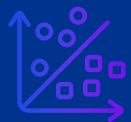
blueprism



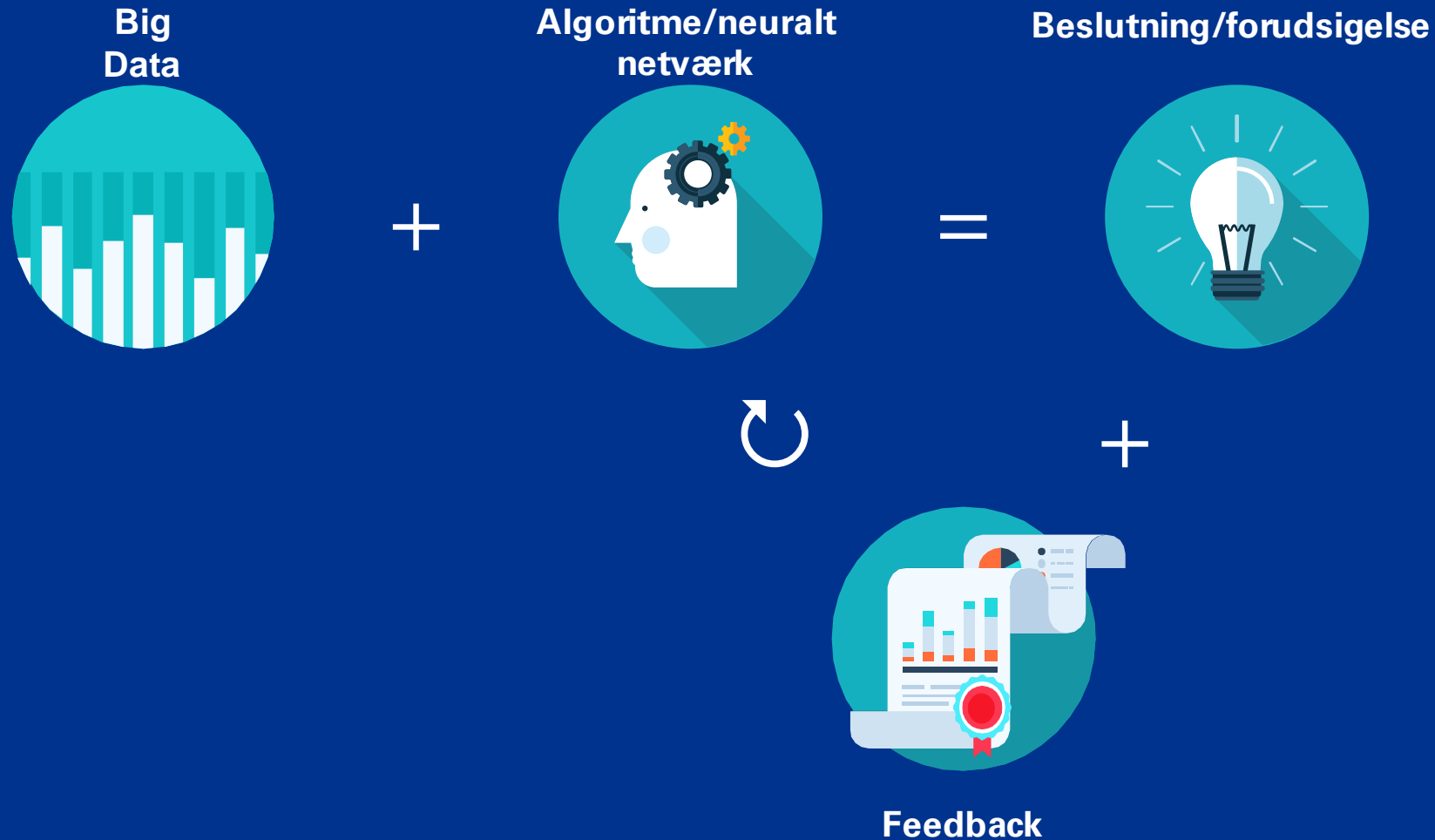
00 : 30 min

ENOVATION

Machine Learning



Machine Learning baserer sig på Big Data og feedback loops



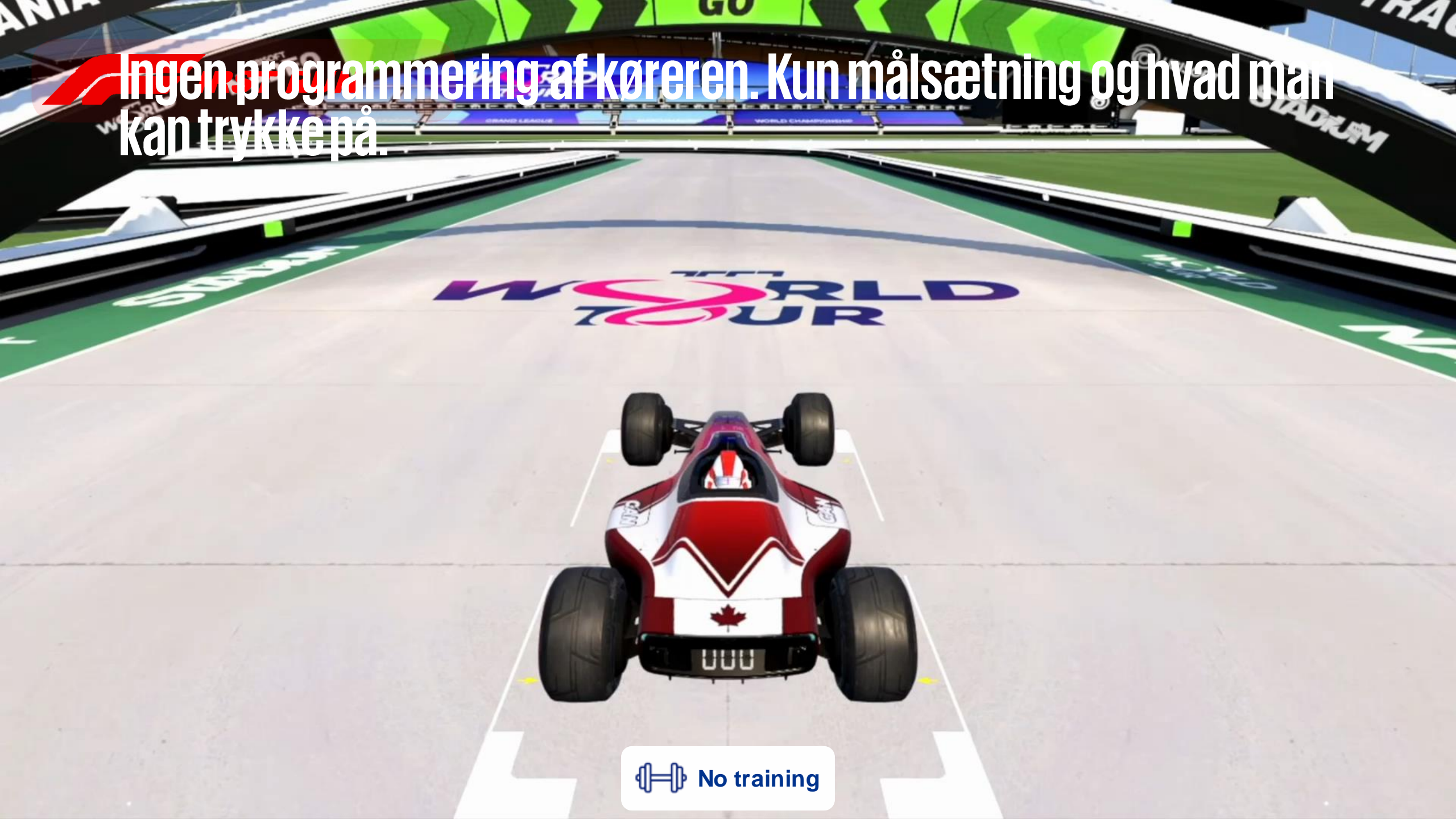
Ingen programmering af køreren. Kun målsætning og hvad man kan trykke på.

 **IRST RUN**



 No training

Ingen programmering af køreren. Kun målsætning og hvad man kan trykke på.



 No training

Ingen programmering af køreren. Kun målsætning og hvad man kan trykke på.



 2 hours

00:03:13

Ingen programmering af køreren. Kun målsætning og hvad man kan trykke på.

 **IRST RUN**



 24 hours

00:03:13

Ingen programmering af køreren. Kun målsætning og hvad man kan trykke på.



 24 hours

Machine learning er bedst til erfaringsbaserede opgaver

HR chatbot hjalp med at sikre fokus i dansk TelCo ved at automatisere redundante medarbejder henvendelser...

En dansk TelCo lancerede intern HR chatbot til at svare på ofte stillede spørgsmål. Chatbotten blev sat i produktion for virksomhedens 8.000 ansatte og fik en høj customer satisfaction rate fra start.

Kontekst

HR afdelingen brugte store dele af deres tid på at svare på de samme typer henvendelser, der var spredt ud på mange forskellige ansattes mailindbakker.

4,5

ud af 5 mulige i customer satisfaction rate



Optimér kundeservice med automatiseret håndtering af e-mails

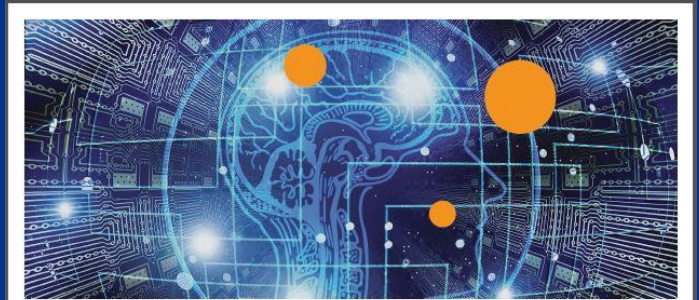
CRM | 30. juli 2019 kl. 05:34 | 1

Tilgang

Vi indsatte 170 emner i chatbotten baseret på input fra ansatte og HR. Barsel var et af de emner som drev chatbottens succesrate, hvilket var en overraskelse for HR afdelingen.



“Kundeafgangsanalyse. AI forudser hvem og hvorfor”



Fighting Fraud with a Model of Models

Whitepaper

Utilising Artificial Intelligence to Prevent Payment Card Fraud



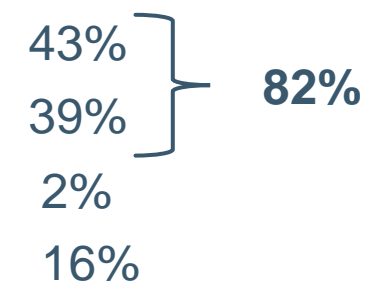
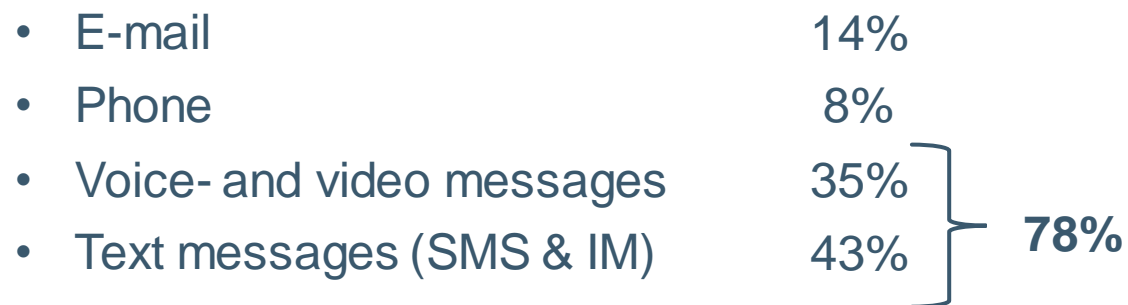
Chat/tekst foretrækkes af unge og af stadigt flere ældre



Generation Z

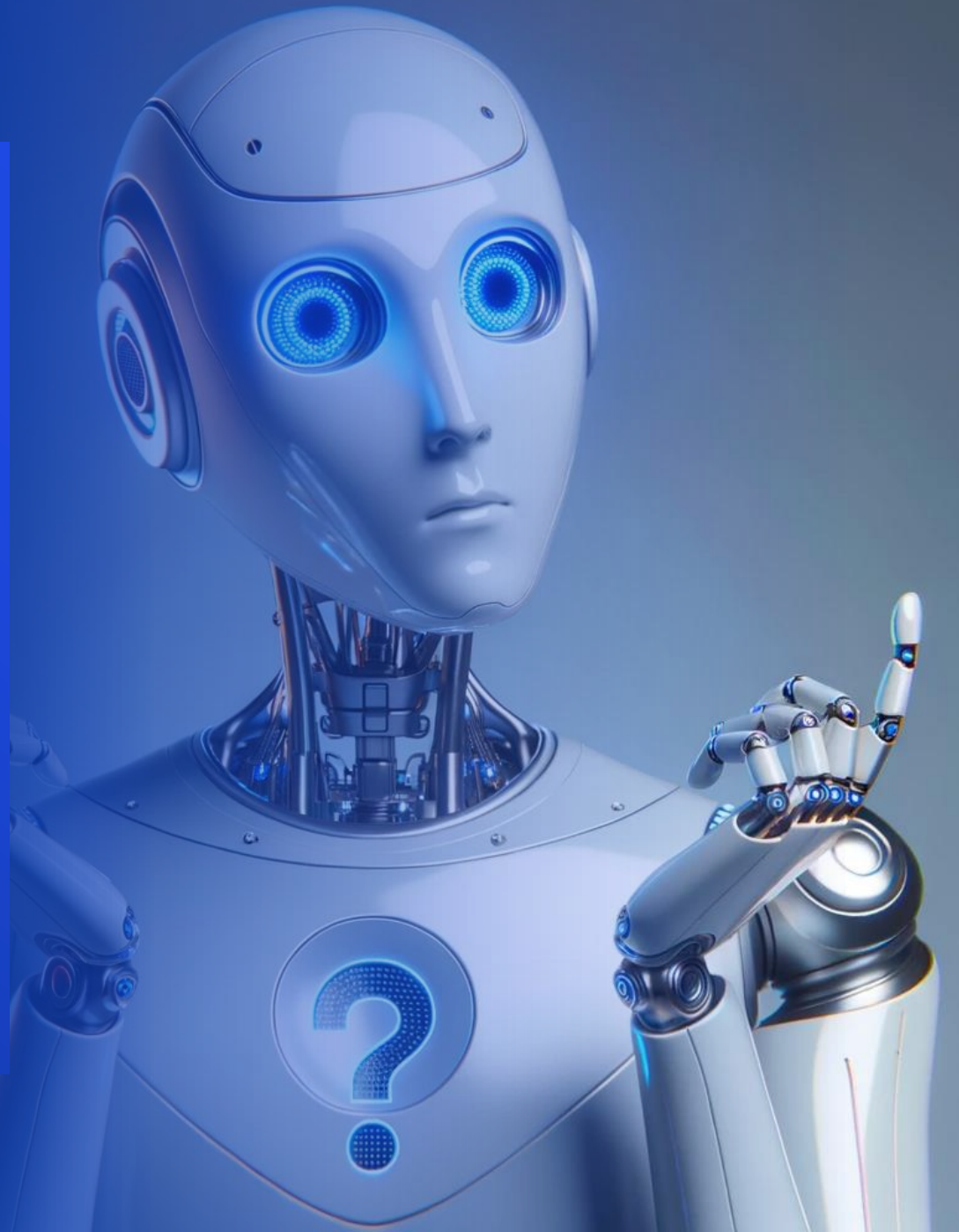


Generation X+



02
Hvordan vil AI
forandre arbejde i
banker?

KPMG



KPMG's AI-rapport viser en mulig produktivetsforøgelse på 10-50% for 80% af alle medarbejdere

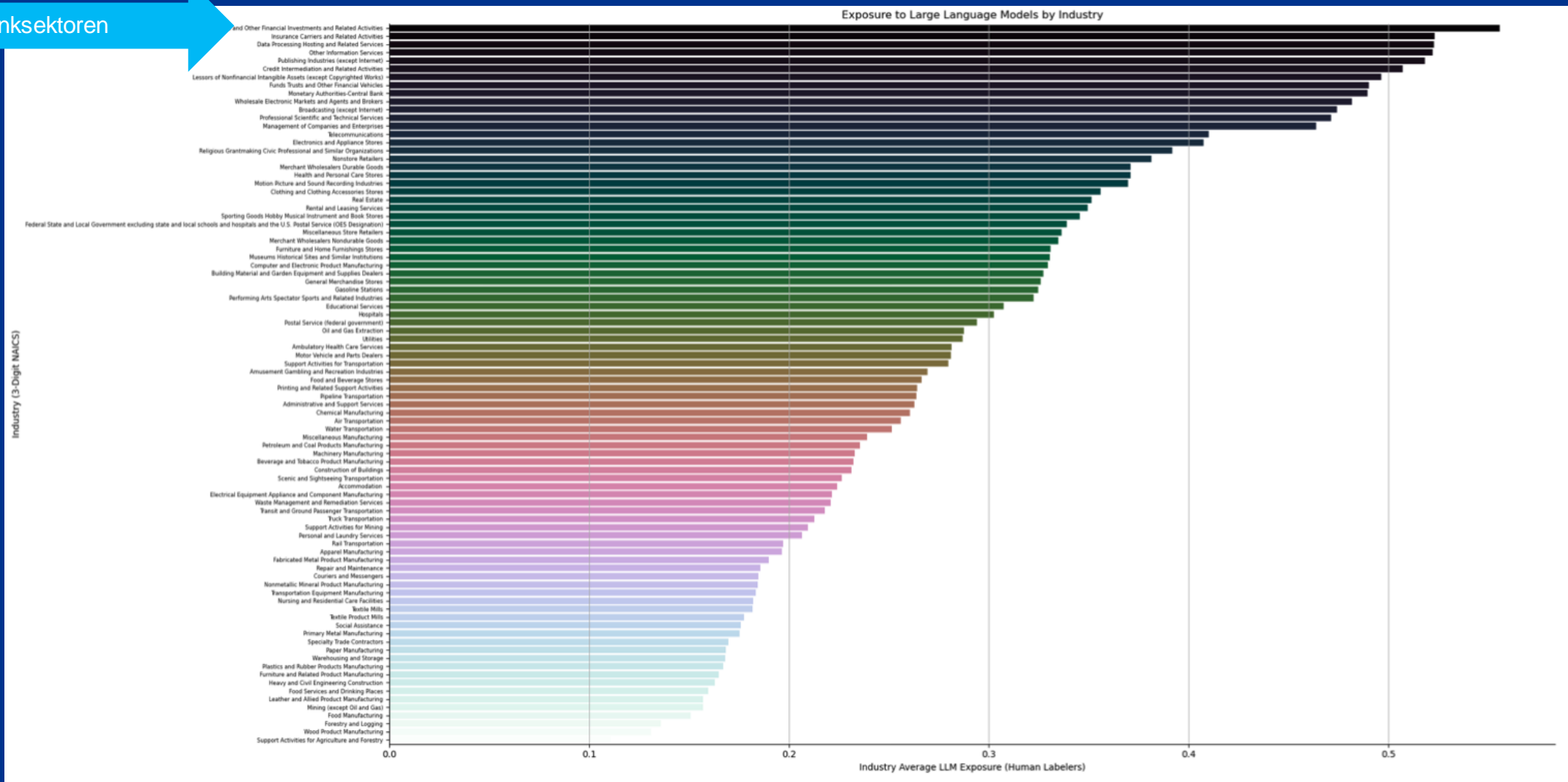


Excerpt from **KPMG** report for the Confederation of Danish Industry (DI), June 2023



Banksektoren er den sektor som har størst Generativ AI potentiale

Banksektoren



Jo højere din uddannelse er, desto mere påvirket af GenAI. Lønstigninger kan falde relativt ifht. mindre uddannedes løn

+

Jobs mest påvirket af LLM:

- Forfattere, tolke
- Undersøgelsesforskere
- Web- og digital designere
- Skat- og revisorer
- (IT-udviklere)



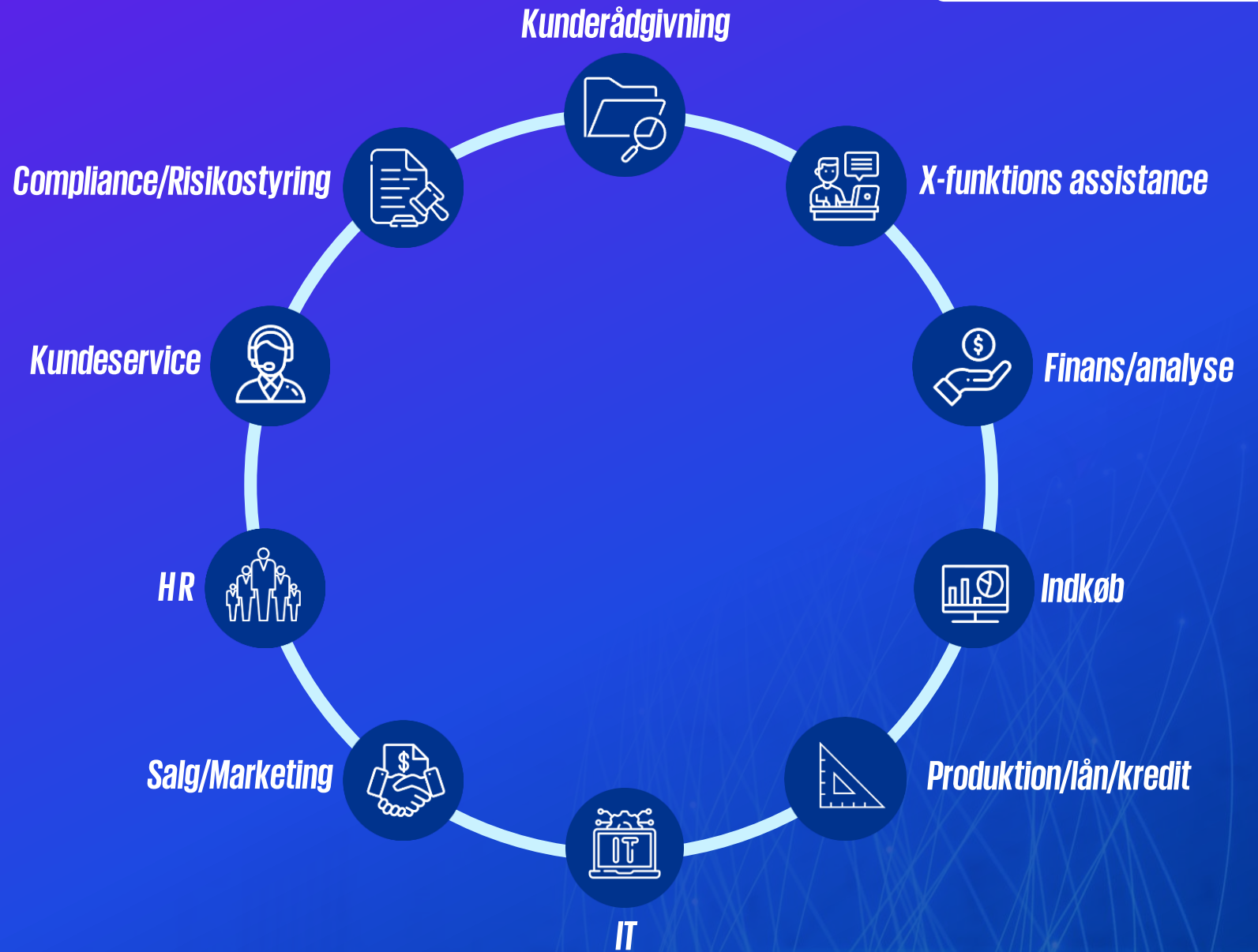
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Jobs mindst påvirket af LLM

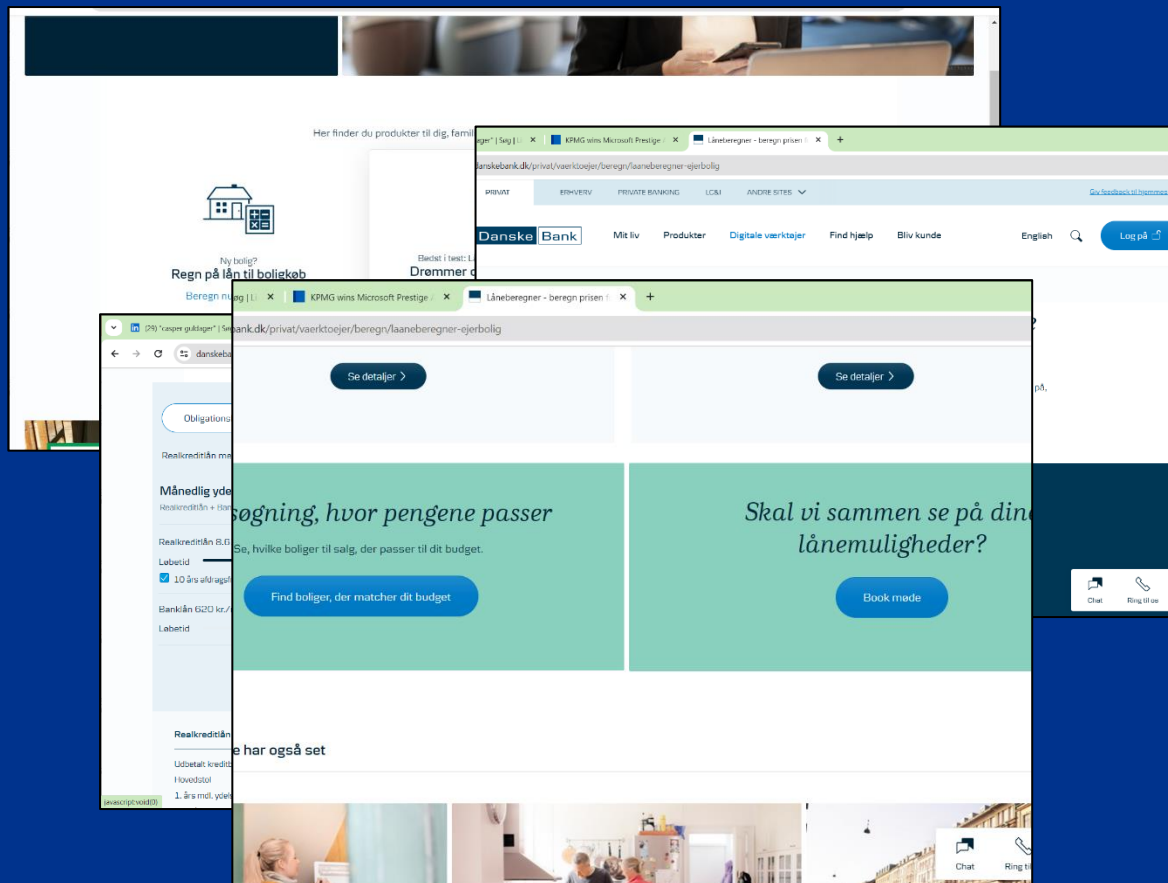
- Lager-/fabriksarbejder
- Håndværkere, chauffører
- Service inden for gæstfrihed
- Landmænd
- (Butiksassistenter)



GenAI kan anvendes overalt i banken



Rådgiveren møder sjældnere kunder som skal bruge meget hjælp. De har gjort det selv. Webbanken forvandles til chat



BankBot: Hej Simon!

Simon Larsen: Hej, jeg har brug for hjælp til at ansøge om et realkreditlån. Kan du hjælpe mig?

BankBot: Selvfølgelig, jeg hjælper dig gerne med at få et overblik over processen. Har du allerede fundet en bolig, du ønsker at købe, eller er du stadig på udkig?

Simon Larsen: Jeg har fundet et hus, jeg er interesseret i.

BankBot: Perfekt! For at vi kan fortsætte, skal jeg bruge nogle oplysninger. Hvad er købsprisen på huset, og hvor meget ønsker du at låne?

Simon Larsen: Huset koster 2,5 millioner kroner, og jeg tænker på at låne omkring 2 millioner.

BankBot: Tak for informationen. Vi skal også se på din økonomiske situation. Kan du fortælle mig om din årlige indkomst før skat og om du har andre større gældsposter?


Simon Larsen: Min årlige indkomst er 600.000 kroner før skat, og jeg har et bil lån på 100.000 kroner.

BankBot: Tak, Simon. Med en indkomst som din, og med hensyn til din eksisterende gæld, vil vi beregne din betalingsevne. Dette hjælper os med at sikre, at du ikke bliver økonomisk overbelastet af lånet. En del af denne proces er også en kreditvurdering. Har du mulighed for at fremsende de seneste tre måneders lønsedler og et overblik over dine månedlige udgifter?

Simon Larsen: Ja, det kan jeg godt. Skal jeg sende dem over e-mail?

Virksomhedsrådgiveren bliver hjulpet til dyb forberelse af mødet med virksomheden af GenAI. Her en business loan GPT:

Financial Loan Advisor ▾



Financial Loan Advisor

By Mathias Boisen 👤



Professional financial loan advisor for corporate clients


Åben model

Provide your company's financial report.

Specify your company's financial goals.

Should I search for [Company Name]'s info?

 Message Financial Loan Advisor... 

ChatGPT can make mistakes. Consider checking important information. 

Kundeservice-medarbejderen får hjælp af GenAI og reducere dokumentationstiden samtidig

AI transskriberer, opsummerer og støtter medarbejderen ifbm. kundernes henvendelser



Den finansielle analytiker får et kraftfuldt redskab. Her konkurrentanalyse udført af en GenAI GPT:

Visualiseringer og kommentarer af ChatGPT ADA

Rapport (manuel indsætning i Word) baseret på GPT analyse og visualiseringer

Eksempel prompt: "As an experienced Financial Analyst please comment on the visualizations and cross compare the development"



Peer Analysis Q3 2023

Comments made by ChatGPT 4

Total Operating Income

The visualization of Net Interest Income, indexed to Q3 2022, provides a clear depiction of the financial performance trend for each of the four banks: Luminor, SEB, Citadele, and Swedbank. Notably, all banks exhibit an upward trajectory, indicating an overall growth in interest-related earnings over the year. SEB shows the most pronounced increase, indicating a robust growth in its interest-earning activities. Luminor and Swedbank also demonstrate significant growth, though at a more moderate pace. Citadele, while showing growth, appears to have the least steep curve, suggesting a more conservative increase in net interest income compared to its counterparts.



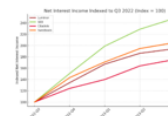
Net Fee and Commission Income



The line chart for Net Fee and Commission Income, again indexed to Q3 2022, reveals diverse trends among the banks. Luminor and SEB show a relatively stable pattern with minimal fluctuations, indicating consistency in their fee and commission-based revenue streams. Citadele exhibits a slight upward trend, suggesting a modest increase in such income over the year. Swedbank, now included in this visualization, shows a more variable pattern, suggesting fluctuations in its fee and commission income, possibly indicative of varying business strategies or market conditions affecting its fee-generating services.

Total Operating Income

The Total Operating income chart encapsulates the overall revenue performance of the banks, combining various income streams. All banks show an upward trend, indicating overall revenue growth. Notably, SEB and Swedbank demonstrate a steeper growth curve, suggesting more aggressive revenue generation strategies or more substantial market gains in the period. Luminor and Citadele, while also growing, do so at a more measured pace.



Combined Analysis

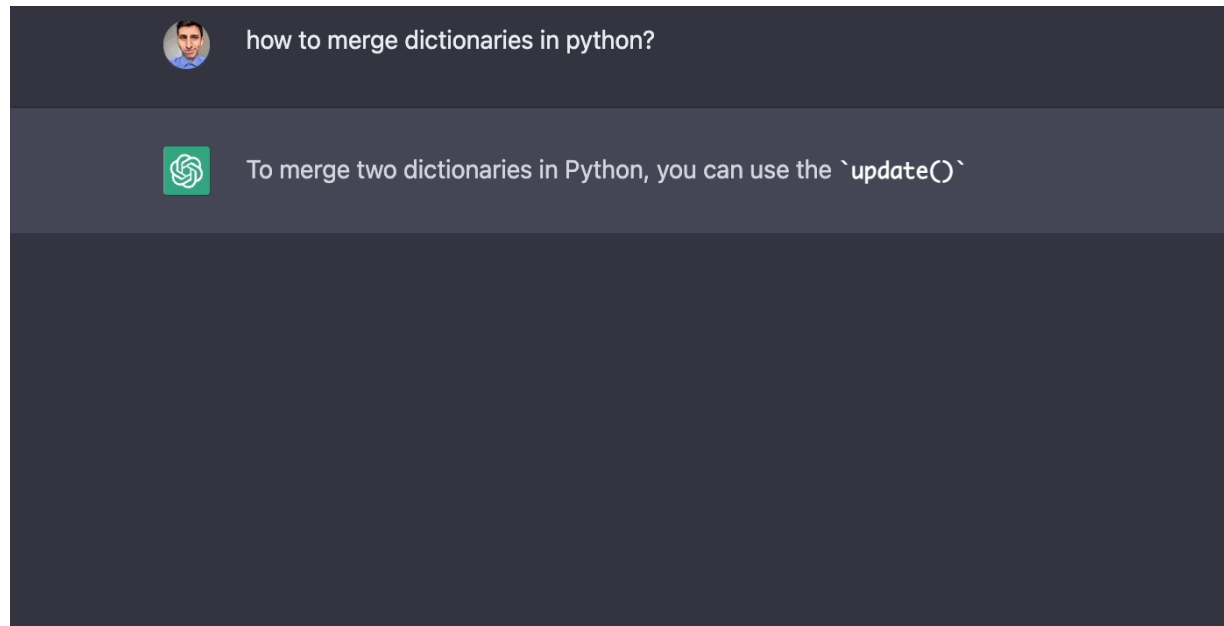
Growth Consistency: SEB stands out with consistent growth across all income categories, suggesting robust overall financial performance and effective revenue generation strategies.

Diverse Revenue Streams: The variance in the growth patterns of Net Fee and Commission Income, as compared to Net Interest Income, across banks, highlights the diversity in their revenue streams and potentially different strategic focuses. For instance, a bank with steadier fee income but rapidly growing interest income might be expanding its lending activities more aggressively.

Market Positioning: The differences in growth trajectories might also reflect the banks' market positioning and customer base. For example, banks with more stable fee income might have a strong foothold in stable, fee-generating services like asset management or transactional banking.

Economic and Regulatory Influences: External factors such as economic conditions, interest rate changes, and regulatory environment can significantly influence these income streams. Banks showing higher sensitivity to these factors might have more exposure to market-based or interest-sensitive products.

IT-medarbejdere oplever en produktivitetsforbedring på 50%...



“ Om 5 år vil 80 % af al kode blive skrevet af large language models

“ Det sker meget tidligere, og produktivetsløftet er højere – Bent Dalager

Case: Compliance-GPT integreret ind i MS Word for QA automatisering

The screenshot displays the Microsoft Word interface for a document titled "Designing Physical Assets for Medtech Companies". The document content is as follows:

Designing Physical Assets for Medtech Companies

The design of physical assets for medtech companies is a crucial aspect of the development process. These assets can include medical devices, diagnostic equipment, and other healthcare-related products. The design process involves a combination of engineering, materials science, and user-centered design principles.

Defining the Problem

The first step in the design process is to clearly define the problem that the product is intended to solve. This involves understanding the needs of the end user and identifying any technical requirements or constraints. The design team should work closely with stakeholders, including clinicians, patients, and regulatory bodies, to ensure that the product meets all relevant standards and regulations.

Generating Ideas

Once the problem has been defined, the design team can begin to generate ideas for potential solutions. During the ideation phase, the team will typically create sketches, models, and prototypes to test their ideas. This allows them to evaluate the feasibility of different designs and make any necessary adjustments before moving on to the next phase of the process.

Creating Detailed Drawings and Specifications

Once a design has been selected, the team will begin to create detailed drawings and specifications for the product. This includes selecting materials, determining manufacturing processes, and creating detailed assembly instructions. The design team must ensure that the product can be manufactured at scale while maintaining consistency and quality.

Testing and Validation

The final step in the design process is to test and validate the product. This involves conducting rigorous testing to ensure that the product meets all specifications and requirements. This may include testing for durability, functionality, and safety. The design team should also conduct user testing to ensure that the product meets the needs of its intended users.

Conclusion

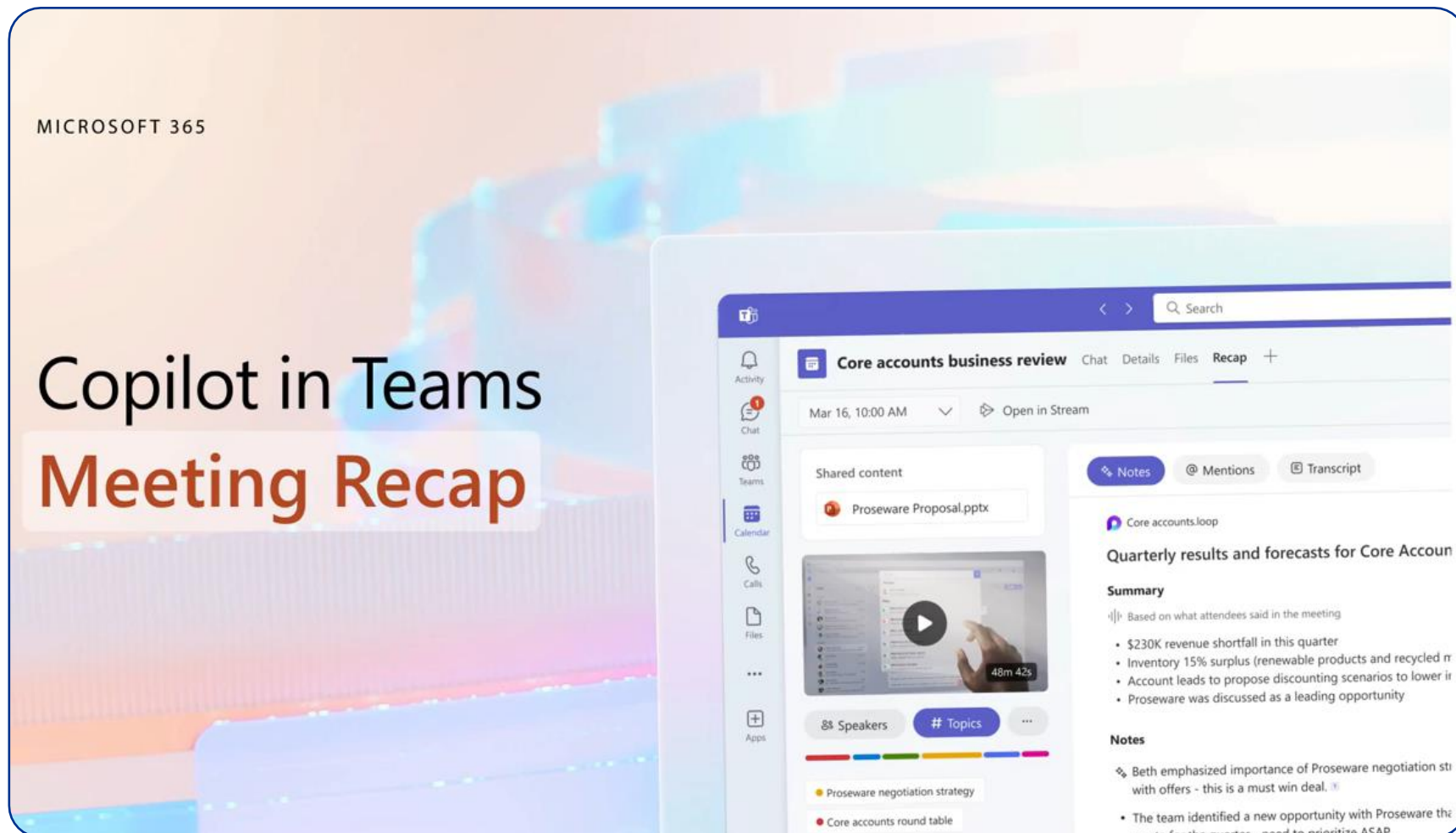
Overall, the design of physical assets for medtech companies is a complex and iterative process that

The interface includes a taskpane on the left with a blue dashed box labeled "1" around the "Open" button. A blue dashed box labeled "2" highlights a paragraph in the "Generating Ideas" section. On the right, a sidebar chat window labeled "RADChat" contains a message with a green checkmark, highlighted by a blue dashed box labeled "3". The chat message reads: "Following the problem definition phase, the design team initiates the ideation phase for conceptualizing solutions. They develop initial sketches, models and prototypes to test and assess the feasibility of the concept before proceeding to the subsequent phase of the process." Below the message are "Accept Suggestion" and "Start Conversation" buttons. The top of the window shows the ribbon with "Review" selected, and a search bar. The bottom status bar indicates "Page 1 of 1", "59 of 350 words", "English (U.K.)", "Text Predictions: On", "Editor Suggestions: Showing", and "Confidential".

På tværs af organisationen: Copilot i Teams laver referater og fortæller om beslutninger og meninger

Eksempel prompts du kan spørge Copilot:

- Opsummer konklusionen af mødet
- Hvad synes person X om projektet?
- Hvad er de næste skridt for projektet?



Analyser og spørg ind til data (her: Co-pilot in Excel)



Eksempel prompts du kan spørge Copilot:

- Giv et breakdown på salg fordelt på kanaler
- Visualiser salg i grafer
- Modellér hvordan vækstraten influerer bruttoavancen

	A	B	C	D	E	F	G	H	I	J	K
1	Country	Customer	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price	Gross Sales	Discounts	Sales	COGS
2	France	VanArsdel	Biodegradable Cleaning Products	Low	4345	\$10	\$352	\$1,529,440	\$15,294	\$1,514,146	
3	USA	VanArsdel	Biodegradable Cleaning Products	Low	4245	\$10	\$352	\$1,494,240	\$14,942	\$1,479,298	
4	Australia	VanArsdel	Biodegradable Cleaning Products	None	4124	\$10	\$352	\$1,451,648	\$0	\$1,451,648	
5	Mexico	VanArsdel	Biodegradable Cleaning Products	Medium	3954	\$10	\$352	\$1,391,808	\$83,508	\$1,308,300	
6	France	Contoso Pharmaceuticals	Biodegradable Cleaning Products	Low	4952	\$10	\$127	\$628,904	\$6,289	\$622,615	
7	France	Contoso Pharmaceuticals	Recycled Can	Low	4903	\$5	\$127	\$622,681	\$6,227	\$616,454	
8	Canada	Proseware	Natural Personal Care Products	Low	1954	\$270	\$302	\$590,108	\$5,901	\$584,207	
9	Canada	Proseware	Biodegradable Cleaning Products	High	1990	\$220	\$302	\$600,980	\$84,137	\$516,843	
10	USA	VanArsdel	Compostable Food Packaging	Low	1254	\$3	\$380	\$476,520	\$4,765	\$471,755	
11	USA	Proseware	Natural Personal Care Products	Medium	1465	\$224	\$302	\$442,430	\$26,546	\$415,884	
12	USA	Proseware	Sustainable Snack Packaging	Medium	1410	\$120	\$302	\$425,820	\$25,549	\$400,271	
13	Australia	Proseware	Natural Personal Care Products	Medium	1369	\$224	\$302	\$413,438	\$24,806	\$388,632	
14	USA	VanArsdel	Compostable Food Packaging	Medium	1052	\$3	\$380	\$399,760	\$23,986	\$375,774	
15	Canada	VanArsdel	Compostable Food Packaging	Low	980	\$312	\$380	\$372,400	\$3,724	\$368,676	
16	Australia	Proseware	Sustainable Snack Packaging	Medium	1298	\$120	\$302	\$391,996	\$23,520	\$368,476	
17	Australia	VanArsdel	Compostable Food Packaging	None	954	\$3	\$380	\$362,520	\$0	\$362,520	
18	Canada	Contoso Pharmaceuticals	Biodegradable Cleaning Products	Low	2785	\$110	\$127	\$353,695	\$3,537	\$350,158	

Eksempel: Hurtigt lokaliser dokumenter i organisationen



February 13, 2024 at 02:18 PM

I need to facilitate a workshop about physical work environment. Do we have any presentation I can use?

Yes, there is a PowerPoint presentation titled "Work environment workshop - Current state approach" that you can use. It was authored by you and was last modified just now. The presentation discusses the importance of a productive work environment and how it affects employee well-being and engagement. It includes a current state analysis of the office space layout, lighting, temperature, noise levels, and furniture and equipment for ergonomic design. There is also a brainstorming session where employees are invited to share their ideas and concerns. ¹

 Copy

1 reference ^

● 1/30 AI-generated content may be incorrect  

¹  Work environment workshop - Current state approach 

Copilot finder og opsummerer hurtigt de vigtigste organisationsdokumenter om ethvert emne for dig!



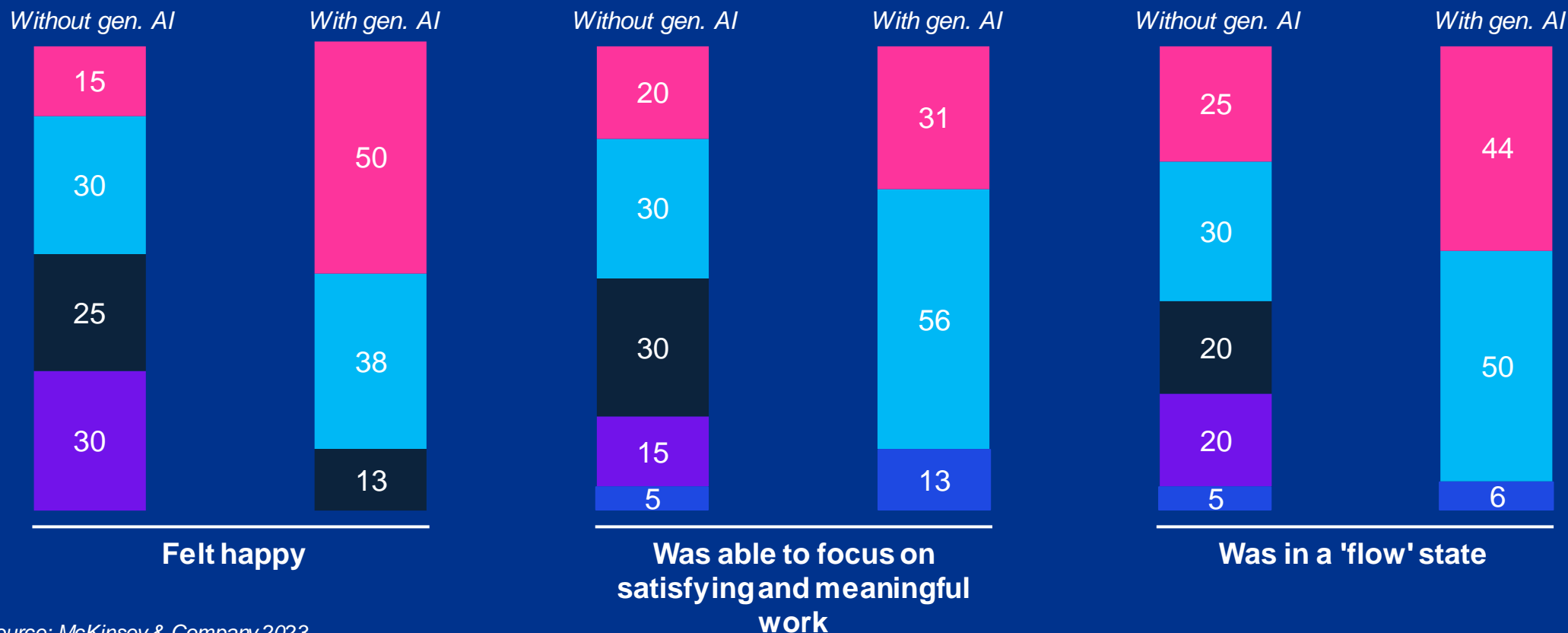
Brug af generativ AI giver øget trivsel og meningsfyldt arbejde

Developer sentiments,
% of respondents

Strongly disagree
Somewhat agree

Somewhat disagree
Strongly agree

Neither agree or disagree



Source: McKinsey & Company 2023

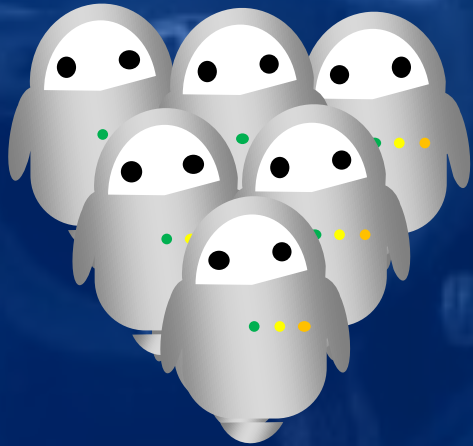
03

Hvilke (nye) kompetencer vil der blive behov for?

KPMG



**Bankansatte vil bruge mindre tid på selv
at lave arbejdet og mere tid på at
validere arbejde udført af AI**



Tekniske kompetencer vil forblive nødvendige på trods af at programmering vil være en af de mest påvirkede kompetencer af GenAI*



*Based on KPMG Research for the Confederation of Danish Industry. Picture by ChatGPT4

Bankkompetencer vil også forblive nødvendige og samtidigt øges behovet for medarbejdere som har god sprog- og menneskeforståelse



*Based on KPMG Research for the Confederation of Danish Industry. Picture by ChatGPT4

At stille spørgsmål er den nye nøglekompetence

Svar-kompetencer bliver mindre vigtige (kodning, statistik, paragraf-lære..)

Evnen til at forstå problemet og stille spørgsmål bliver nøglen

Problem-finding is the new premium skill

The most essential human skill is going to shift from problem-solving to problem-finding.

This contrasts with how workplaces have functioned since the Industrial Revolution. For decades, the emphasis has been on taking an obvious problem and finding an unobvious solution. But AI — when combined with human ingenuity — has unprecedented problem-solving power, so much so that it may free humans to spend more time in creative pursuits. The real challenge of applying AI productively is going to be “use case” discovery: identifying cross-disciplinary urgent problems that are best suited to AI technology.

One good illustration of a surprising application of AI is boosting the productivity of salmon farming — a crucial step towards promoting sustainable aquaculture. Fish farmers are now using AI and machine perception tools (that can take in and process sensory information) to automate feeding time in accordance with the hunger levels of the fish. This reduces wasted feed, trimming a significant carbon emissions source, while improving salmon growth metrics.

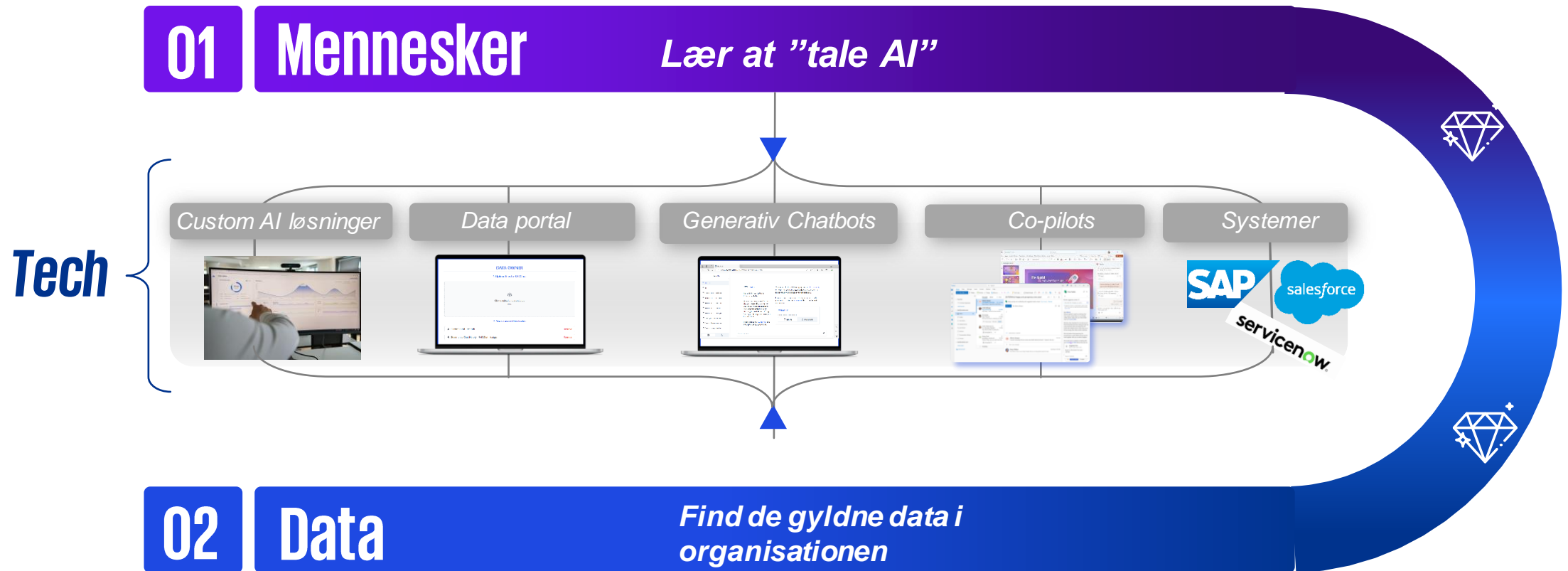
A recent collaboration between Tidal AI (a project inside X, Alphabet’s Moonshot Factory) and Cognizant will build on the initial success and expand to other sectors of what’s known as the Blue Economy, including shipping and

04

Hvordan man bedre forberedt til AI alderen?

KPMG

Uanset teknisk løsning, så er evnen til at "tale AI" vigtig og den kræver øvelse og gentagen brug



Allerede ved at bruge DanskeGPT ud af boksen kan betydelige produktivitetsløft opnås

X Output | Quality

NewPractice

70%+

Contextualised GenAI

Smart assistants

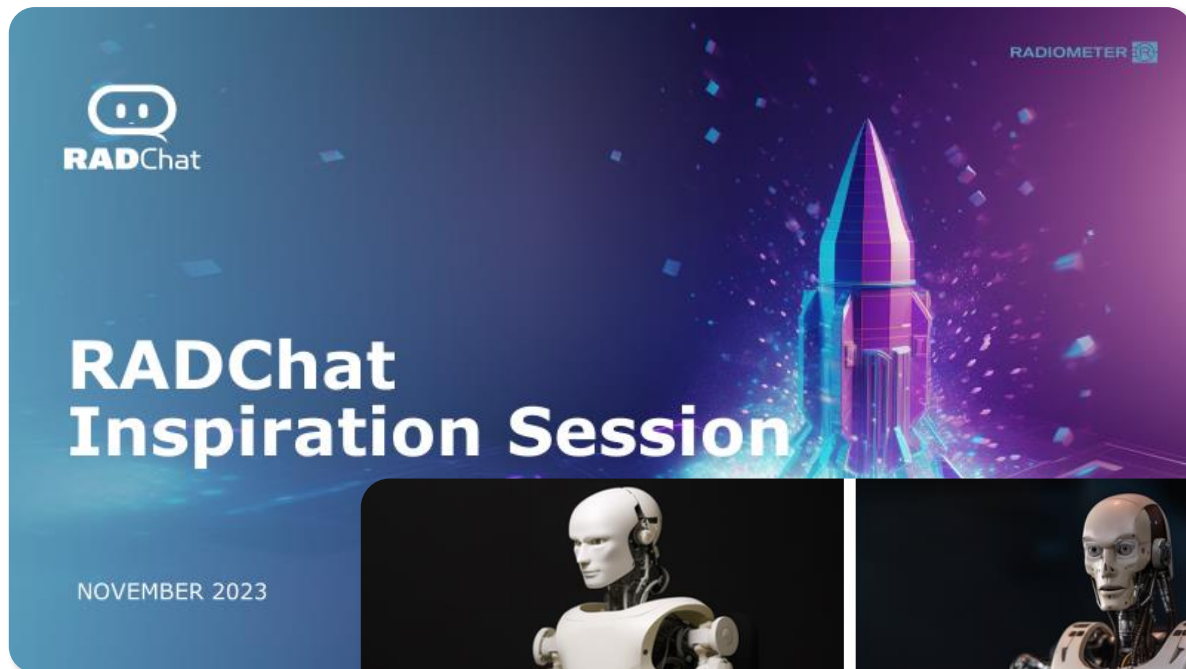
30-70%

General GenAI

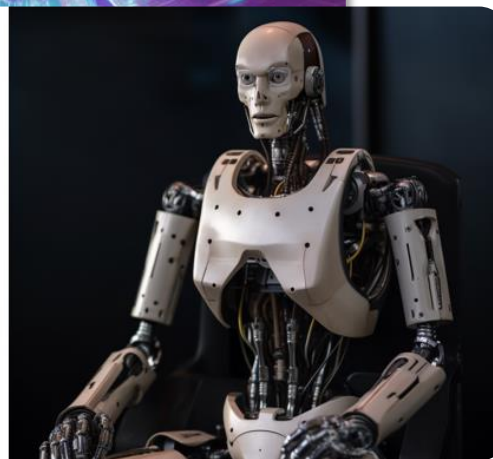
DanskeGPT

10-30%

Time



Human prompt:
Humanoid robot sitting on a chair



ChatGPT prompt:
Photo of a sleek silver and white humanoid robot with blue white eyes, sitting straight up on a modern chair in a well-lit room with dark background. The robot's posture is straight, and its hands are resting on its lap.

Gå til GenAI træning
Lær at "tale GenAI". Lær at identificere muligheder for GenAI og anvendelse inden for banken, start med dit eget daglige arbejde.

Priming

Opportunity recognition

How to apply GenAI

Use cases

Prompt Engineering

**Fremskridt og værdiskabelse:
Skriv gerne op hvordan det går. Hvor meget hurtigere og hvor meget bedre kvalitet. Og spørg eksperterne!**

KPMG

GenAI - Value Case Calculator Guide

The goal of this GenAI Business Case calculator is to measure selected processes over a three-week period to give an impression on the organization as a whole.

To provide a clear overview of the impact of GenAI on the organization, the calculator will submit data to the organization's internal systems. Once the data is submitted, the calculator will generate a report.

Step 3: Sparring Session

Use for sparring session with client [Refresh all data](#)

[Before](#) [During](#) [After](#)

Step 4: Business Case

Presentation and Statistics on Business Case [Refresh all data](#)

Weekly hours before GenAI	Weekly hours after GenAI	Change
667 h.	240 h.	427 h.

Change	Focus group	Change pr. rep.
427 h.	33	13

Org. Early Adopters*	Org. Early Majority*	Total %
16%	34%	50%

Early Adopters est.	Early Majority est.	Total employee group
400	850	1250

Use-case description	Hours	Category	Count	Description
1 Construction of Power Automate workflows.	10	Other AI Ideas using vision models etc.	2	Specific use interacting with data
2 Construction of Power Apps including script commands.	20	Other AI Ideas using vision models etc.	4	Other AI Ideas using vision models etc.
3 Construction of formula expressions in the Power platform.	10	Specific use interacting with data	2	Specific use interacting with data
4 Construction of Powershell scripts.	10	Other AI Ideas using vision models etc.	2	Other AI Ideas using vision models etc.

Udviklere: Husk EU's AIA og dit ansvar. Brug Trusted AI: Ti kerneprincipper til at guide din tilgang til ansvarlig AI på tværs af AI-livscyklussen. Aflæg [Aipledge.dk](https://aipledge.dk).



Fairness

Ensure models are free from bias and equitable.



Transparency

Ensure transparent, responsible reporting for stakeholder clarity across their lifecycle.



Explainability

Ensure AI can be understood, documented, and open for review.



Accountability

Ensure mechanisms are in place to drive responsibility across the lifecycle.



Data Integrity

Ensure data quality, governance, and enrichment steps embed trust.



Reliability

Ensure AI systems perform at the desired level of precision and consistency.



Security

Safeguard against unauthorized access, corruption, or attacks.



Safety

Ensure AI does not negatively impact humans, property, and environment.



Privacy

Ensure compliance with data privacy regulations and consumer data usage.



Sustainability

Ensure solutions are energy-efficient and support a cleaner environment.

BRUG GenAI

F.eks. til at sparre med om dine opgaver



Sidste råd:
Lyt til
Tech Talk
mfl. og følg
medi AI

Spørgsmål?

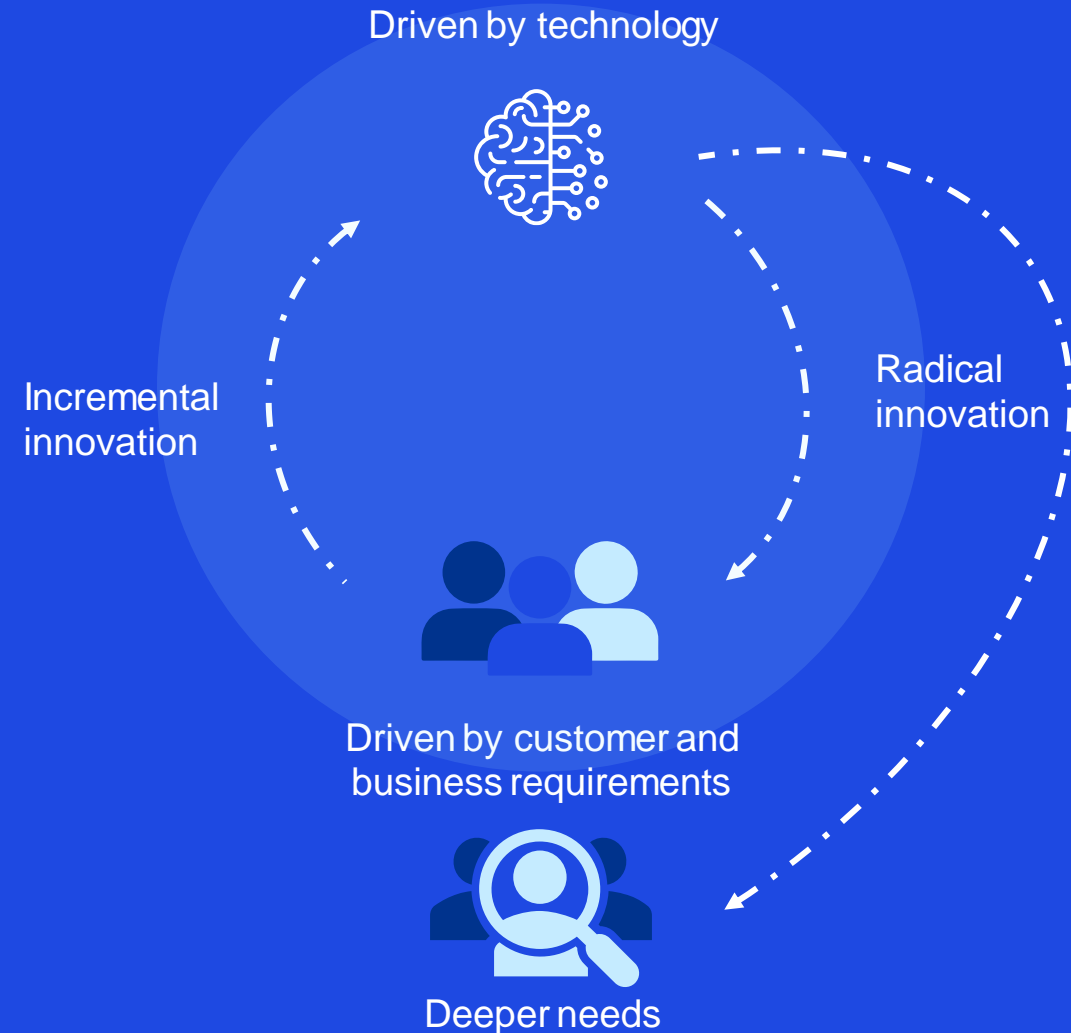


Podcast about future technologies

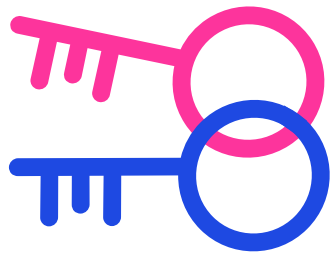
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NewPractice driver radikal innovation ved at tænke fra AI-teknologi og udad, dette skaber nye måder at skabe værdi på

New ways of delivering value

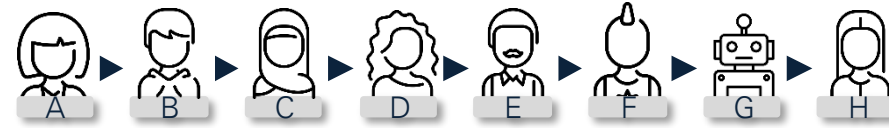


NewPractice er nøglen til at kunne arbejde på en ny måde: AI-drevet processer

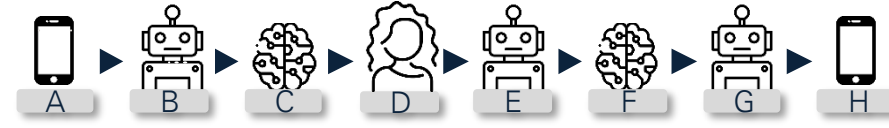


NewPractice

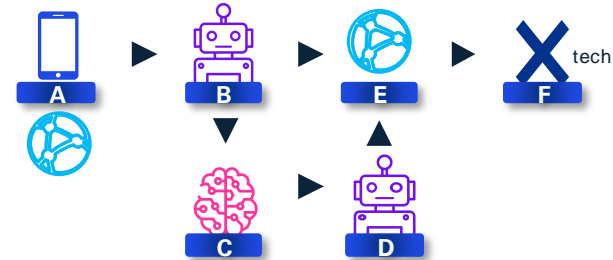
As-is



Best Practice



5-15% Automation



30-100% Automation

