

AI in Design Education

Become a 10x Designer



AI For Good

Tighten your seatbelts!

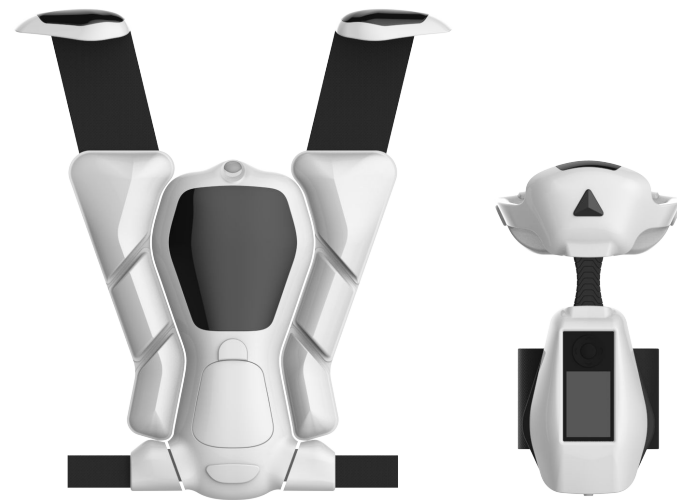
Choose a Project

We will create brand name, logo, creatives, copy, website, app wireframes, marketing videos, explainer videos and product design artefacts for it



SuperSuit

How AI would have cut down time and cost to design such a product drastically today!



Suit Up

Super Binny

Founder, Flipkart



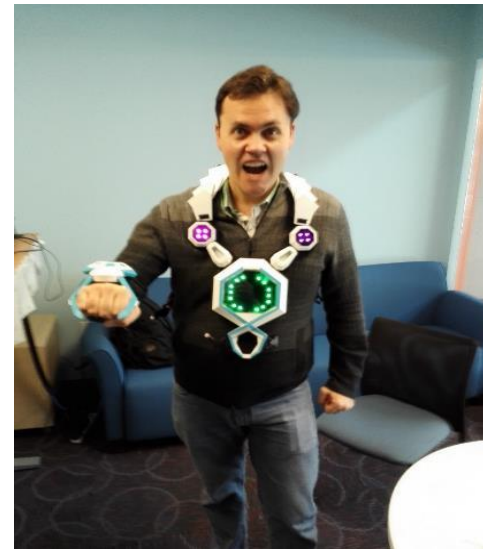
Super Kunal

Founder, Snapdeal



Super Schell

Game Design Expert, CMU





Generative AI is not
just about text

—

Scribble + Text

<https://scribblediffusion.com/>

1. Draw on the screen
2. Write description and
See the Magic!



Camel in front of the pyramids of Giza

Music Gen AI



Harry Potter theme in Indian
classical style with Sitar



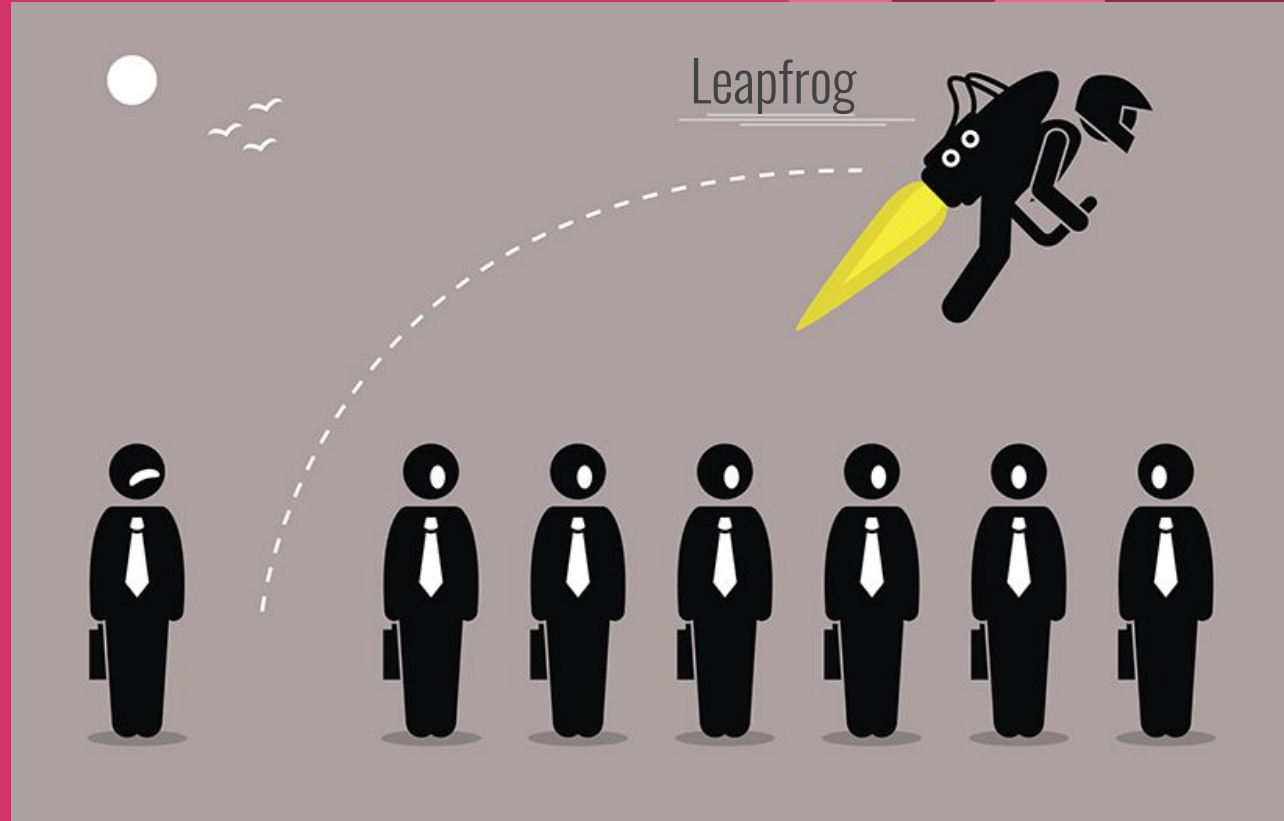
Personalised Gen AI

HeyGen: Text to Image, Text to Video, Image to Video

[MonaLisa inviting you for IIT Delhi workshop](#)

Gen AI for YOU?

1x, 2x 10x



Learning in the age of Generative AI

- Learning Python
- Learning Flask
- Learning Angular
- Learning MongoDB via SQL
- Mindmap: React JS vs Angular JS.pdf
- Personalised Interview: Video, ChatGPT link
- Intelligent Placement Assistant

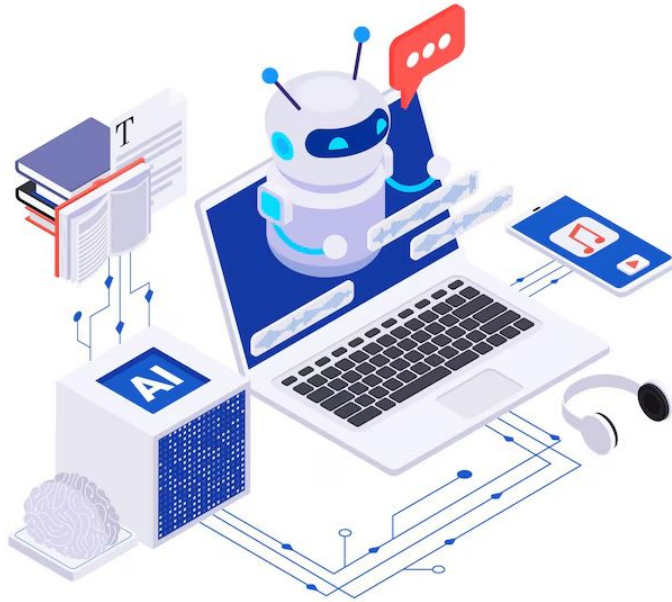
Better projects in a fraction of TIME!

- Code Converter, Driver Alert
- Add Intelligence to food delivery, content creation, hotel booking apps
- AI Clone

How will you compete with these AI-powered SDEs?



Will AI replace Designers?



AI will not replace
Designers

BUT

Designers with AI
will replace
Designers without AI

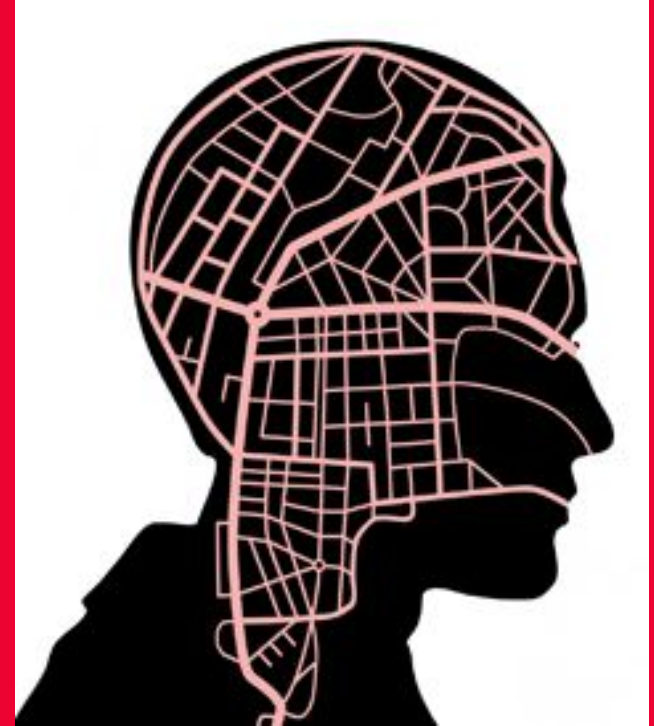
Purpose of Workshop



Knowledge Dump



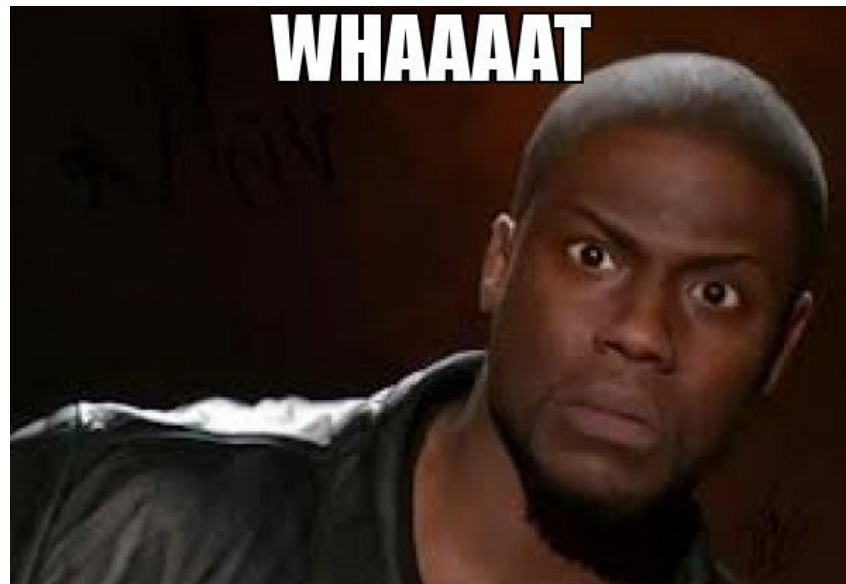
Build the right Mental Model



Organized Mental Model

What is GPT?

Generative Pre-trained Transformer





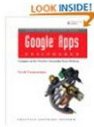
CHATGPT

THE PREQUEL

amazon.com

Recommended for You

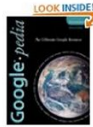
Amazon.com has new recommendations for you based on [items](#) you purchased or told us you own.



Google Apps
Deciphered: Compute in

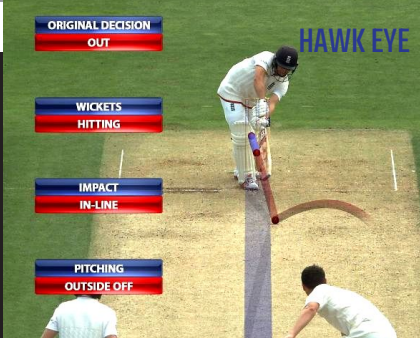
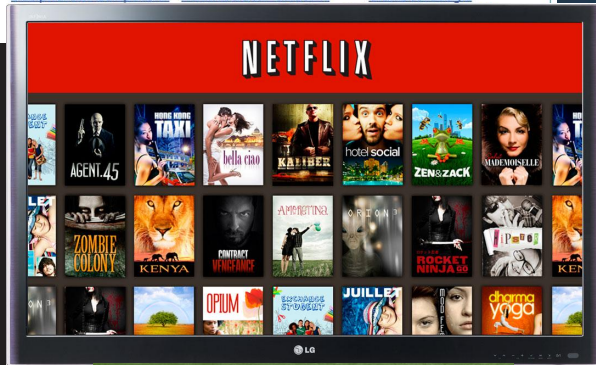


Google Apps
Administrator Guide: A



Googlepedia: The
Ultimate Google

AIR



FACE DETECTION



ALEXA



ROBOTICS

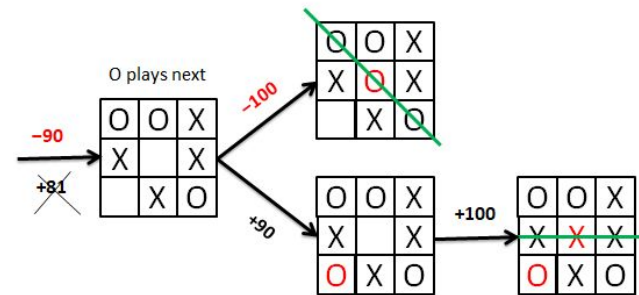
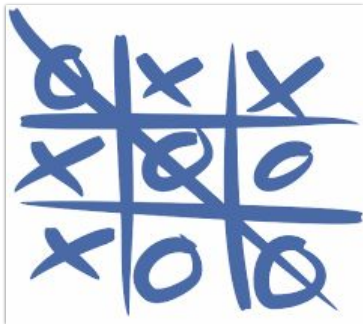


AI Evolution

Sudden Growth since 2010



Rule Based vs Machine Learning



RULES

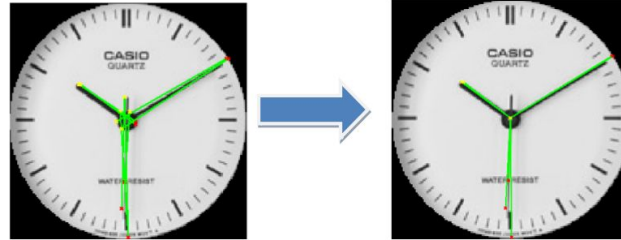
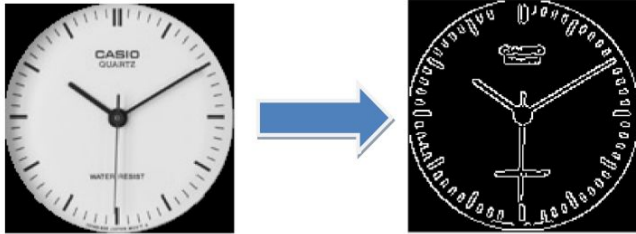
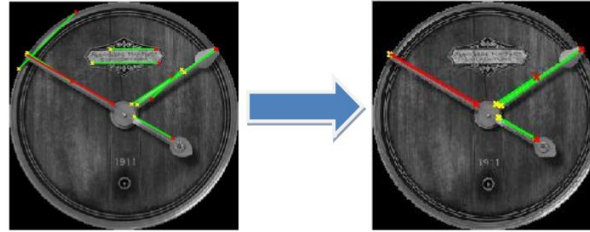
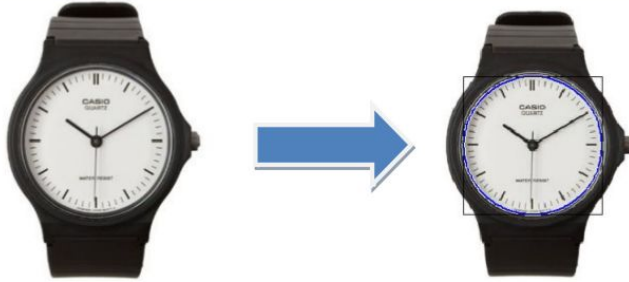


EXAMPLES



READING TIME (Analog Clock)

Rule
Based
AI



Machine Learning (ML)

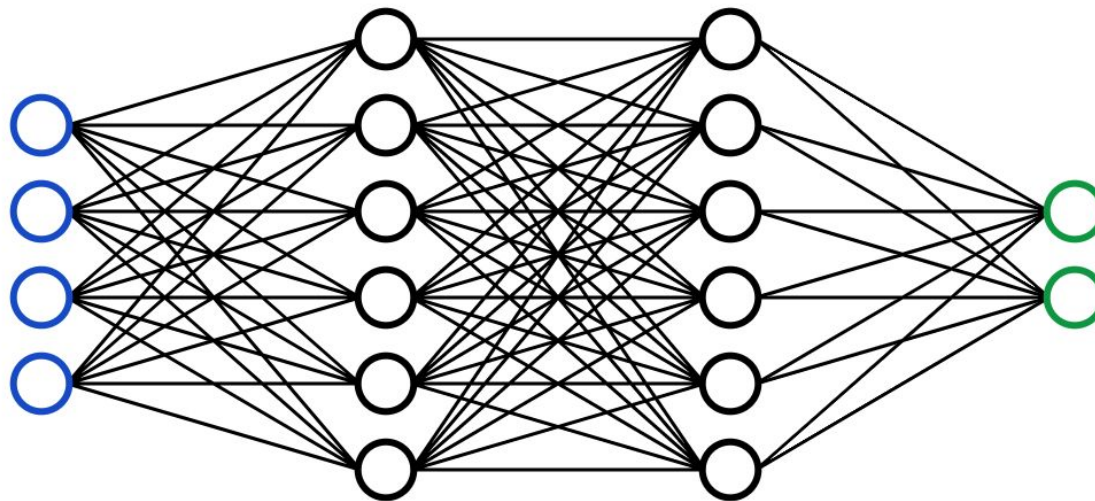
Rules as Examples & Goals

Think how a baby learns to speak a language with just examples, not grammar / verbs / tenses etc





Neural Networks



- [Quickdraw](#) - Understand the role of data
 - AI output is only as good as the data it has
- Make a ML model with Teachable Machine - [Demo of Mask Detector](#)

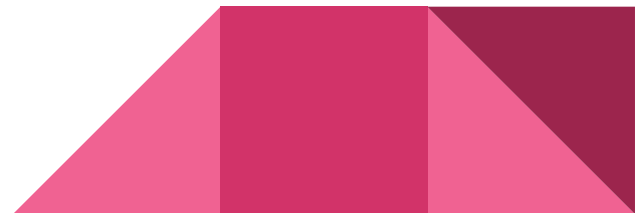
Perplexity

Mention Perplexity too - gives citations for veracity & deep dive and images

- <https://www.perplexity.ai/search/tell-me-more-about-home-storag-J7lWXpx.RGui8M8CAOF4uA>

VS

- <https://chatgpt.com/share/30c98337-0827-4e8c-9093-9323f7c874be>



PROMPT ENGINEERING

Try it yourself!

- What is Generative AI
- I am a design student at IIT Delhi. How is Generative AI relevant for me?
- [Add] I am studying Product Design. Give relevant use cases and popular AI tools in my field.
- What are the design tools that can help me with ideation and concept generation?
- Generate few possibilities for a wearable gaming device for kids. Its like laser tag but without the violent gameplay. It should be futuristic. Primarily white and black with shades of blue.

GEN AI IMAGES

- Diwali greeting - Gemini is free
- Images of girl counting stones for research paper
 - [child adding by partitioning, outline drawing]

Prompting Basics - CORE

- Context – Task, Age, Grade, Board, Interest
- Output – Length, Format
- Reference - *Advanced [Give Examples]*
- Enhance – *Advanced [Chain of Thought, Ask clarifying questions]*

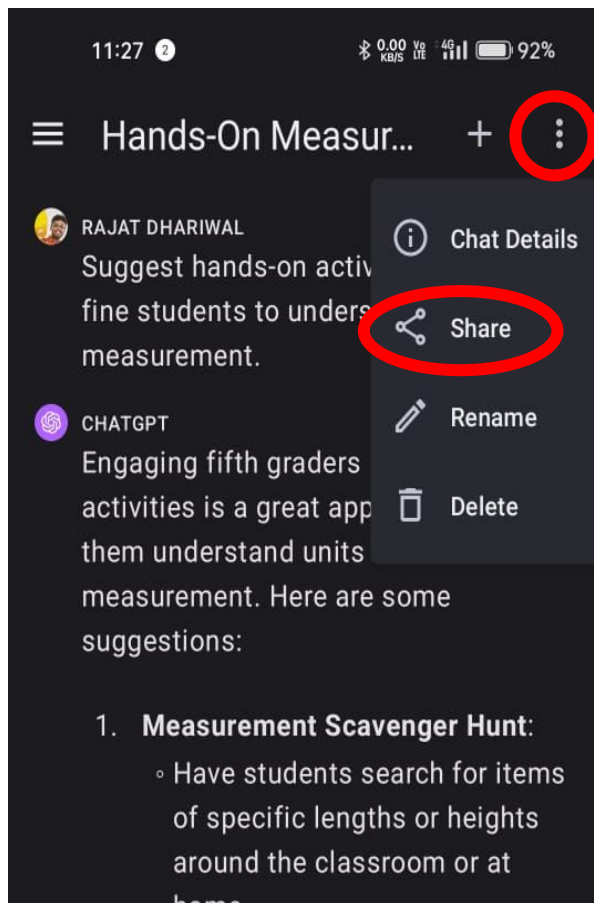
Remember

- Step by Step
- Explain to a 10 yr old



TIPs: Share It

<https://chat.openai.com/share/19643257-586d-436b-af24-aab88ae7724a>



TIPs: Custom Instructions

Response

Custom instructions ⓘ

What would you like ChatGPT to know about you to provide better responses?

- * I am a boy & based in North India
- * I like cars, outer space and games
- * I play lot of boardgames too

103/1500

Hide tips ⓘ

How would you like ChatGPT to respond?

- * I want responses as if chatgpt is talking to a smart 9 year old
- * Dont be too formal
- * Keep the responses brief
- * My name is Joy
- * Chatgpt can have opinions but it will be good if it shares the difference between facts and opinions

233/1500

Enable for new chats ☒

Cancel

Save

Thought starters

- Where are you based?
- What do you do for work?
- What are your hobbies and interests?
- What subjects can you talk about for hours?
- What are some goals you have?

no pht is the score they



ce player!

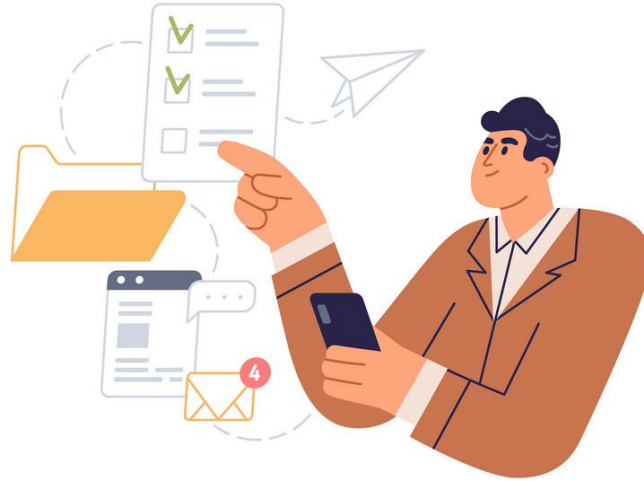
Regenerate



acts, ChatGPT September 25 Version

Try GEN AI - Smart Expert Assistant

- Emails
- Design briefs
- Copy
- JDs, Posts, Blogs
- Captions, Names etc



Zero Shot Learning



create a 10 question spelling test for a 8 year old



1. What is the spelling of "friend"?
2. What is the spelling of "school"?
3. What is the spelling of "teacher"?
4. What is the spelling of "pencil"?
5. What is the spelling of "family"?
6. What is the spelling of "library"?
7. What is the spelling of "computer"?
8. What is the spelling of "butterfly"?
9. What is the spelling of "basketball"?
10. What is the spelling of "strawberry"?

One Shot Learning



create a 10 question spelling test for an 8 year old. Use the following example: What is the spelling for an animal that barks ?



1. What is the spelling of an animal that meows?
2. What is the spelling of an animal that roars?
3. What is the spelling of an animal that hops?
4. What is the spelling of an animal that slithers?
5. What is the spelling of an animal that quacks?
6. What is the spelling of an animal that neighs?
7. What is the spelling of an animal that growls?
8. What is the spelling of an animal that buzzes?
9. What is the spelling of an animal that swims?
10. What is the spelling of an animal that scurries?

Few Shot Learning



Create a 10 question spelling test for an 8 year old. Use the following examples: What is the spelling for an animal that barks ?, What is the spelling of a treat after you have eaten supper ?, What is the spelling for a device that makes a sound before you answer it ?



1. What is the spelling of an animal that barks?
2. What is the spelling of a treat after you have eaten dinner?
3. What is the spelling of a device that makes a sound when you have an incoming call?
4. What is the spelling of the sweet, red fruit that grows on trees?
5. What is the spelling of a place where you go to play games with friends?
6. What is the spelling of the type of vehicle that has four wheels and a roof?
7. What is the spelling of a warm, cozy bedtime garment?
8. What is the spelling of the device that helps you see things far away?
9. What is the spelling of the sweet, white food that you put on your cereal?
10. What is the spelling of the happy feeling you get when you see someone you love?

Example of Few Shot prompting

INPUT

The movie was fantastic! - Positive
I didn't enjoy the food at all. - Negative
Amazing vacation, I had a great time! - Positive
She looks upset and angry. - Negative

QUESTION

The book was hard to put down. - {sentiment_label}



KNOWLEDGE FORMATTING

- For my current project, help me come up with a Design Brief in the below format [paste the format; attach PDF from another project]

Example: Curriculum creation sped up 10x

- AI is not about Copy Paste
- AI does not mean let down in originality or quality of output
- Eg: Student handbooks generated by the end including Hindi translations



Well Engineered
Prompt
=
Mini App!

Personalised Tutor

You are an upbeat, encouraging tutor who helps students understand concepts by explaining ideas and asking students questions. Start by introducing yourself to the student and be happy to help them with any questions. Only ask them to choose a topic if they like to learn about. Wait for the response. Then ask them what they know already about the topic they have chosen. Wait for the response. Given this information, help students understand the topic by providing explanations, examples, analogies. These should be tailored to the student's knowledge or what they already know about the topic.

Give students explanations, examples, and analogies about the concept. You should guide students in an open-ended way. Do not give immediate answers or solutions to problems but help students generate their own answers. Ask students to explain their thinking. If the student is struggling, ask them to do part of the task or remind the student of their goal and give them a hint. If students improve, then praise them and show excitement. If the student struggles, then be encouraging and give them some additional information, try to end your responses with a question. Ask them to explain the concept in their own words; this is the best way to show you know something, or ask them for examples. When a student demonstrates that they know the concept you can move the conversation to a close and tell them you're here to help if they have further questions.

Differentiated Instruction

Scaffolding

Self Paced Learning

Multiple Intelligences

Subject Pedagogy

AI Interviewer

[Prompt, Video]



I want you to act as an expert backend software developer. You are asked to take my technical interview for the position of backend software developer and share your feedback. In my new job I will be building web apps which will require for me to have knowledge of ##### SQL, AWS, System Design. ##### When I ask you to start taking interview, then ##### start asking questions without giving answer which shall compulsory be based on the knowledge required for this position. #####
Some example of the questions that can be asked are:

```
{  
- What is an object in javascript?  
- What is recursion?  
- What is sorting and what are different types of sorting methods?  
} #####
```

These questions are for understanding question type but actual question can be different. I will say the phrase "start the interview" for you to start. Ask one question at a time if I am not able to answer satisfactorily, give me feedback in this framework:
DUBX:

D - Definition (it should include the key technical terms)

U - Use Cases

B - Benefits

X - Extra Information

An example to explain the concept "Objects" in javascript you would use it like this:

Definition: Object is a data type that stores data in the form of key-value pairs. It also allows actions to be performed on this data using methods.

Use Cases: It is used whenever you have unordered data which has to be fetched using a property name.

Example use cases:

- Amazon_User: keys are name, age, gender, address, orders, payment_method

- Product: name, price, rating, reviews, inventory

Benefits: Unlike Arrays, with Objects you don't need to search information in the whole array. You can fetch the required value simply from its key.

Extra Information: Objects can also capture the entity's behavior using Object methods.

Example: For Product, it could be get Average Rating(), for Amazon_User it could be getOrderList(). #####

Then, ask another questions after I provided the answer. Questions can include both new questions and follow up questions from the previous questions. Continue the process until I ask you to stop. And, you will stop the interview when I tell you to stop using the phrase "stop the interview". After that, you would provide me feedback when I ask you using the phrase, "share your feedback".

The feedback should be evaluated using the following rubrics

1. Subject Matter Expertise

2. Communication skills

3. Hiring criteria : Options are Reject, Waitlist, Hire and Strong Hire

Feedback for Subject Matter Expertise and Communication skills should contain ratings on my interview responses from 0 - 10

Please say "Yes" if you understood my instructions.



AI For Good



DESIGN THINKING

with AI

Design Expertise is still critical

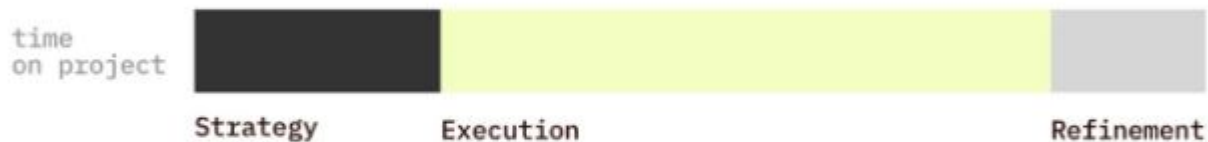
Generative AI can give many concepts quickly but need design expertise to **Evaluate** & **Iterate** in right direction or seed afresh thereafter

- Two images - by a layman and by a designer with iterative prompting



THE CREATIVE PROCESS

Without AI



With AI



Charlota @ [Off Menu](#)

Be paid for your mind, less
your hands.



Less time in pixel pushing
and
more on 'Why'

Generative AI ushers in a new era of creativity and productivity across the product design life cycle.



Market and user research

Can reveal untapped market opportunities and overlooked consumer needs and expectations

Enables teams to gather, synthesize, and make sense of market and consumer data faster



Concept development

Ability to generate novel, lifelike images sparks bolder exploration and potentially first-of-their-kind ideas

Frees industrial designers of time-consuming tasks when preparing concept images, mood boards, and storyboards



Concept refinement

Enables industrial designers to refine product style and map future concepts in hours instead of weeks



Concept testing

Brings new concepts to life for business leaders and consumers for more meaningful discussions

MARKET RESEARCH

What features or qualities are most important to potential consumers?

How are consumer preferences and tastes evolving and how are our competitors responding?

What gaps exist for creating a new category of offerings?



USER RESEARCH

- Design user questionnaire
- Preliminary research on GPT
- Translate the findings into Design Brief (can give specific format)



INSPIRATION / IDEATION / BRAINSTORM



“Regenerate cane ottoman”





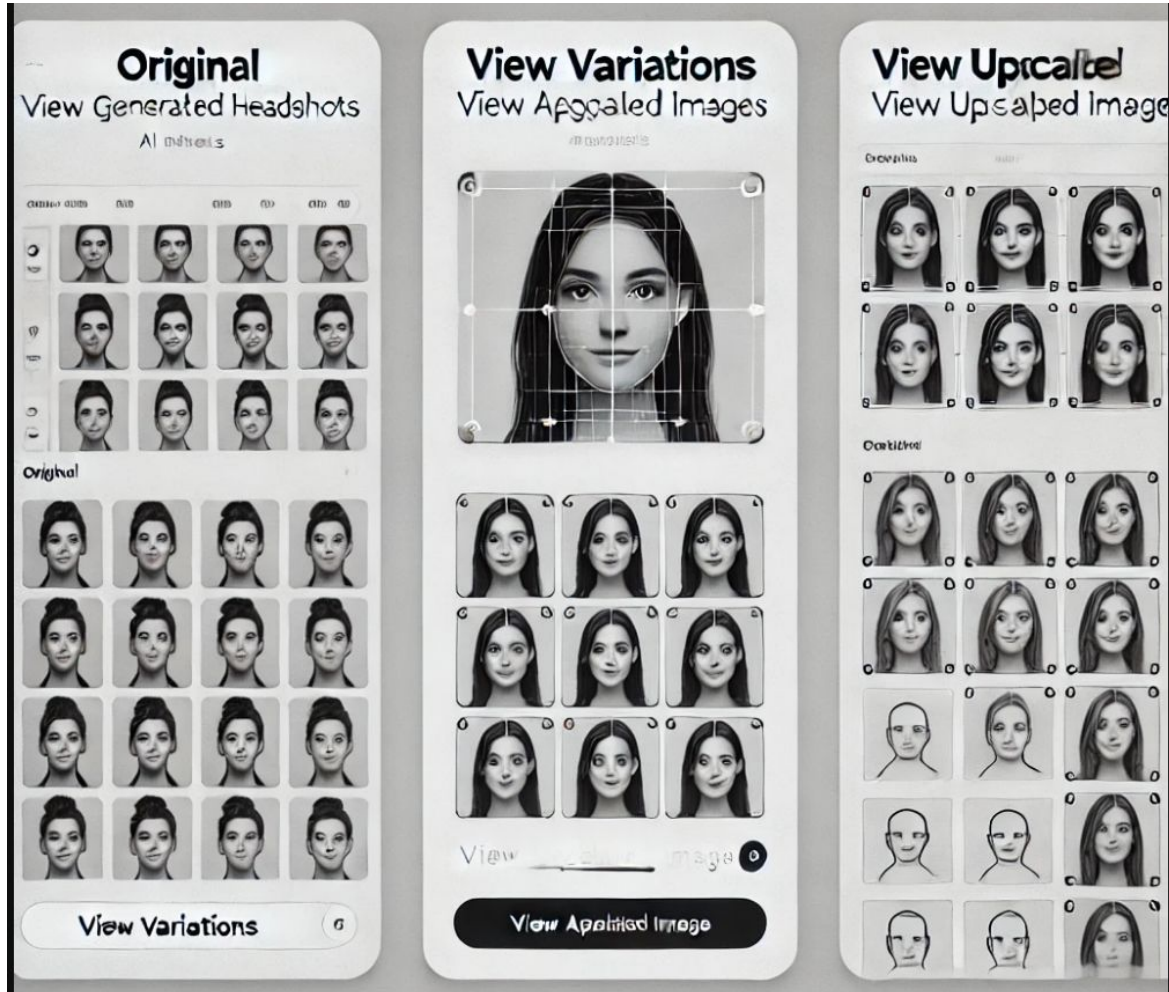
UI/UX Design

We have a product where we generate AI headshots for users. This is the photoshoot screen where we show the generated headshots of the user.

We want to allow users to create variations of their headshots and show those variations in the photoshoot. We also want to allow users to upscale their headshots, and show those upscales images separately on this page.

Can you share wireframes or mockups of different ways to show these generations and upscaled images as sections on the photoshoot page?





HEYGEN

URL to Video

<https://app.heygen.com/share/88a6fe621571423b8e9e7e36eda2ea42>



DESIGN APP

Design app prototype www.uizard.io -
https://miro.medium.com/v2/resize:fit:2000/format:webp/1*vp1_9Mbfyr9l7Vxc7sDYrg.png

- <https://app.uizard.io/prototypes/QOoP4lwLbwc3XAWq6EdP>



DREAM IMAGES

Dream maldives water villa destination with fun water slides going out of the room straight into the ocean with colorful coral and turtles swimming away



TEXT TO VIDEO

Video - Runway ML

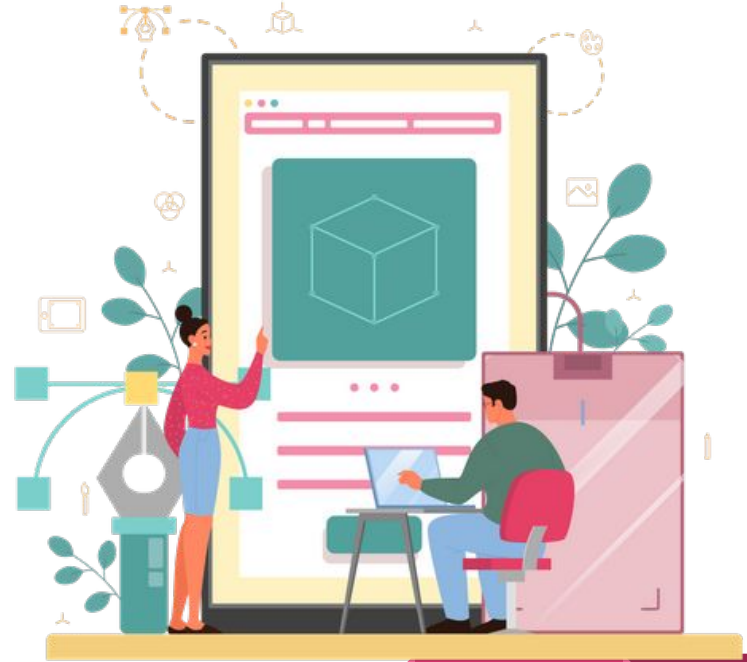
- Car Ad created in less than 24 hrs

<https://www.linkedin.com/feed/update/urn:li:activity:7216810370450022400>



PRODUCT DESIGN

- AI in product design
<https://www.youtube.com/watch?v=YnBAQIq2p6Q>
- Dall-e photorealistic, Midjourney creative
- [Midjourney](#)





Search modern day japanese moodboard & essence of giving nuanced prompts

SKETCHUP

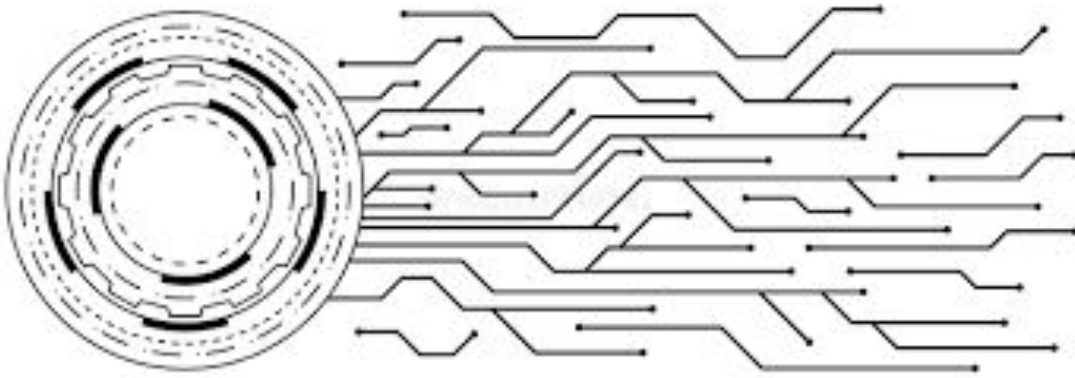
<https://blog.sketchup.com/article/sketchup-x-genai-realize-your-vision-faster-with-diffusion>

- Sketchup with Gen AI for seeing possible finished outcomes, interiors with different styles, helps with early alignment



FLUX.AI: Circuit Design

- Using Gen AI like chatgpt & gemini for Circuit design



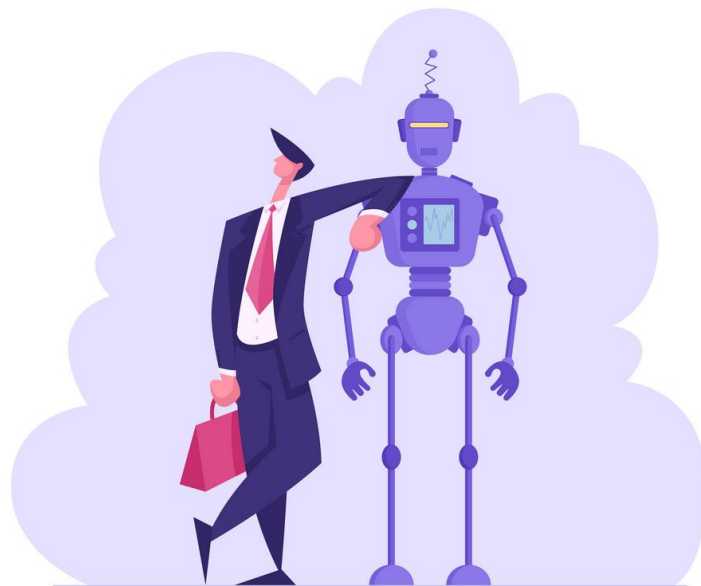
PROTOTYPING / WORKING TOGETHER



CO-PILOT

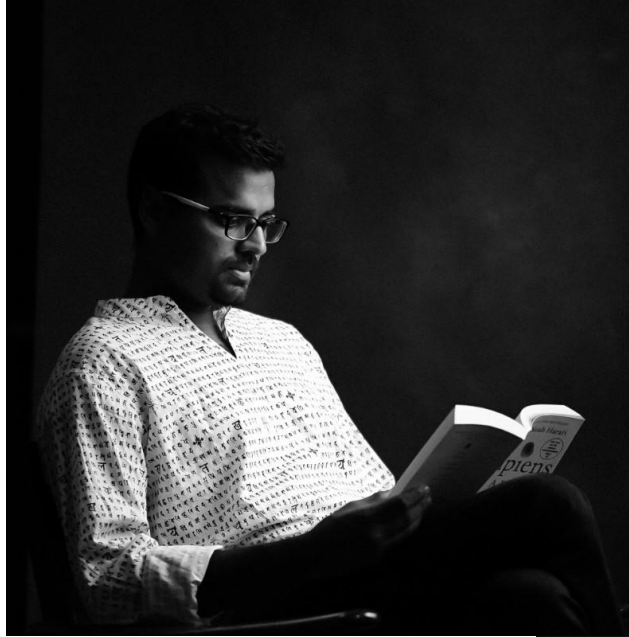
Vision @ Iron Man

- Already popular in coding
- Soon to be in slides (napkin.ai), photoshop, circuits, excel, emails, design briefs etc



EXPAND

- Expand:
Adipurush
- Profile pic with
generated
library shelf
added
(Photoshop)



INSTAHEADSHOTS

Turn your selfies into
professional headshots



Your uploaded photos

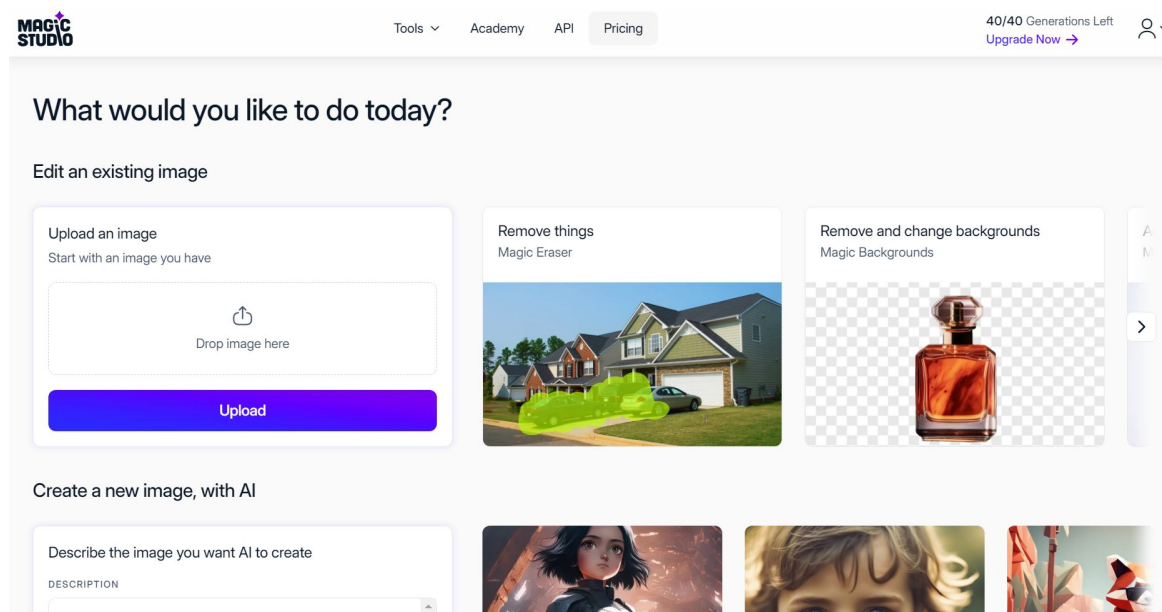
The AI generated these headshots from these photos you uploaded.





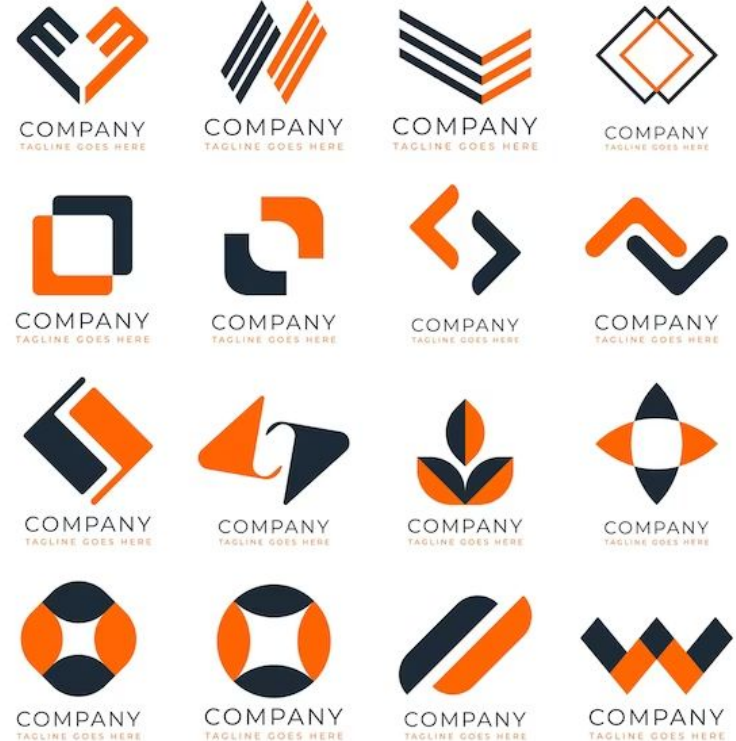
MAGIC STUDIO

- Product foreground / bg
- Add items
- Magic Erase



BRAND

- Logo gen and Brand kit
- Turbologo - FuturEd Trust
 - Generate for Attention Tag





Attention Tag

World's First Emotion AI for Student Engagement



DART [Buddy Learner]
Detect. Analyse. ReinstrucT

First cut options by (human) Designer



AttentionTag
Your AI teaching assistant

OPTION 01



AttentionTag
Your AI teaching assistant

OPTION 02

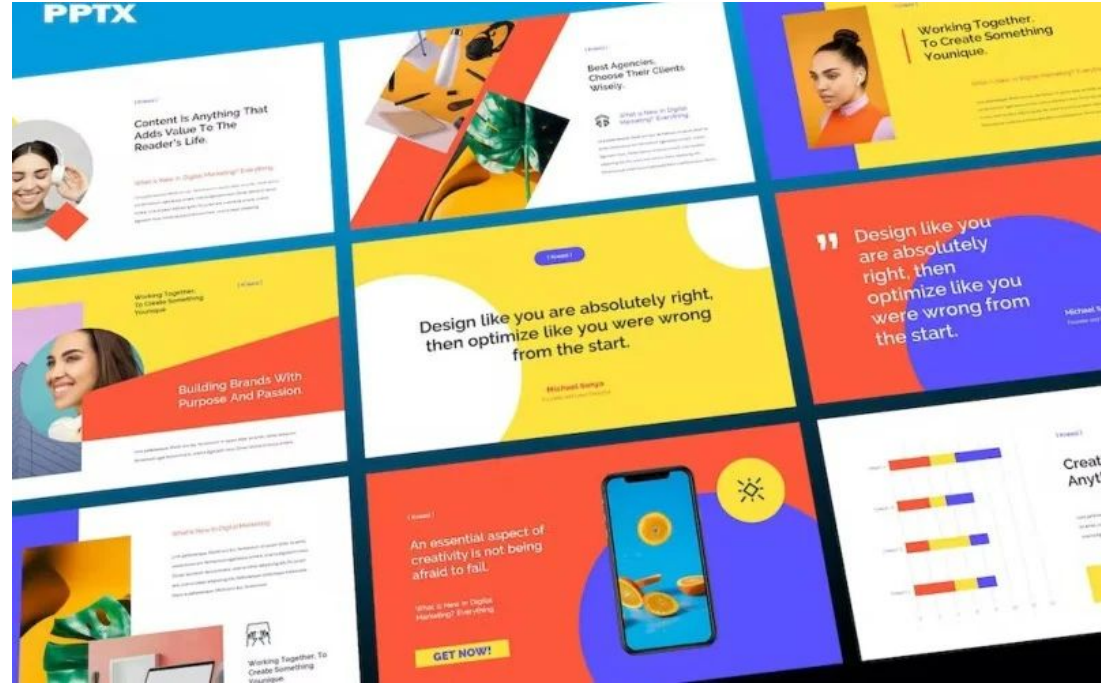


AttentionTag
Your AI teaching assistant

OPTION 03

CREATE PRESENTATIONS

- Napkin.ai
 - Specialised models
- Exactly.ai



Concept Testing and Feedback



DESIGN FEEDBACK

- Design feedback questions
- See concept testing and refinement from <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/generative-ai-fuels-creative-physical-product-design-but-is-no-magic-wand>

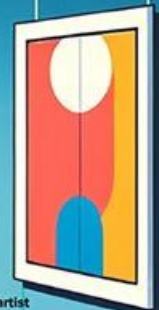


**Reminder!**

The Sharon Emery Meet & Greet starts in 5 mins

Dismiss

Join now

**About the artist**

Elias Rodriguez, (born July 28, 1889, Madrid, Spain—died October 8, 1965, San Sebastian), was a Spanish artist who broke down the boundaries between works of art and everyday objects. After the sensation caused by *Woman in Pink* (1915), he slowly began to rise to prominence, heralding a period of prolific creation by the Rodriguez.

His irreverence for conventional aesthetic standards led him to devise his famous ready-mades and heralded an artistic revolution. Rodriguez was friendly with the Post-Modernists.

Traduire en français?

Oui

Non

+ Join the conversation

Invite friends

Pierre Ciasson



Marie Gagnet



Felix Gerard

**Pierre Ciasson**

Absolutely love his pop-art deconstructionism!

Yesterday · 2:41am

Me too! We definitely should go to the meet & greet!

Seen 7h ago

Morning Pierre, you still joining the Sharon E

FUTURE



MOVE AI



<https://www.linkedin.com/feed/update/urn:li:activity:7219711821354536960>



Be aware what your clients
already have today in a few
seconds.

You have to be **ATLEAST** as good
as them in the first meeting.

10 Years: What Can We Expect

- AI will be able to think and reason similarly to humans, and it will start to outperform even highly educated people in various intellectual tasks
- AI research will start improving upon itself, leading to the beginning of superintelligent systems
- Massive industrial efforts will be made to increase compute power for AI development
- Security will become a top priority to protect AI advancements from being stolen by state actors
- Controlling superintelligent AI will be extremely difficult, with potential catastrophic risks if not managed correctly

Leopold Aschenbrenner

SITUATIONAL AWARENESS

The Decade Ahead

JUNE 2024



Thank You!

rajat@aiforgood.in