P2 Process Book

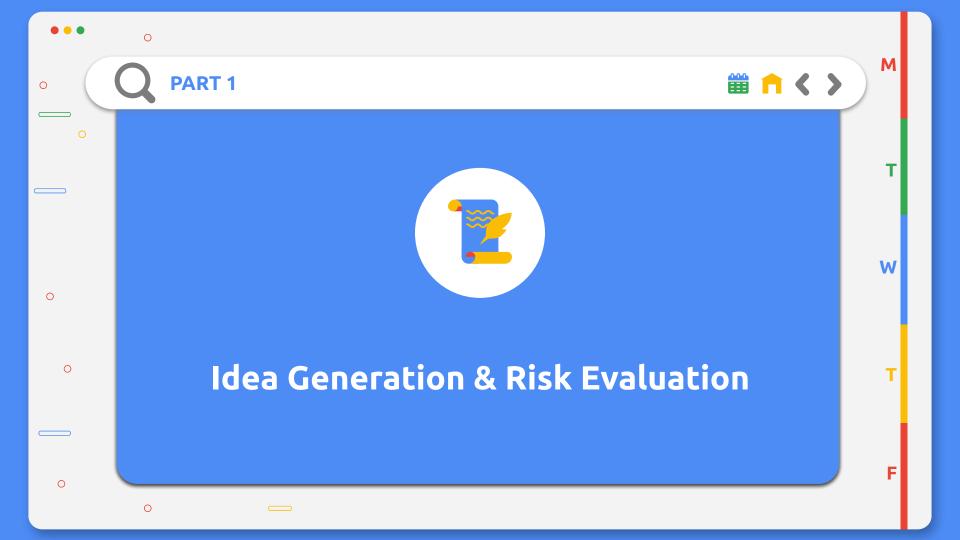
Eddie Wang, Evelyn Bang, Xinfei Cen, Sophie Davis, Shreya Nath, Vijaya Nukala

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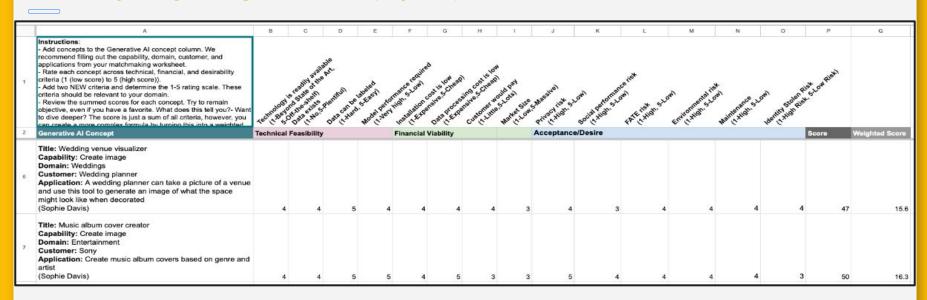
Team 5





Q Matchmaking - Sophie

Capability 1: Image Generation (Top Pick)



Q Matchmaking - Sophie

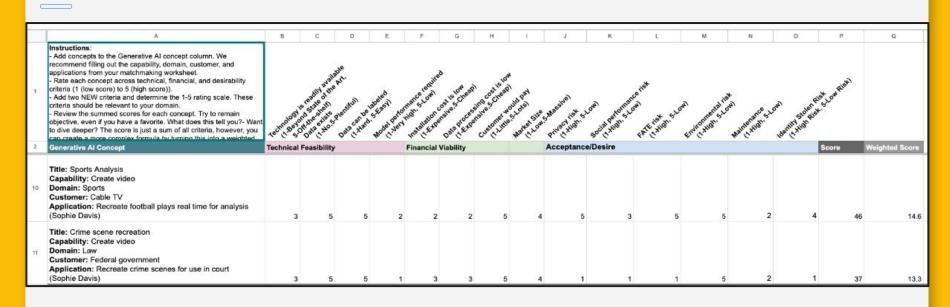
Capability 2: Sound Generation

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Г	A	В	С	D	E	F	G	н	3	9.	J	К	t .	м	N	0	Р	Q
1	Instructions: - Add concepts to the Generative AI concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet. - Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)). - Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain. - Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by hyming this into a weighted Generative AI Concept.	Techi Be	te teadily and a state of the s	Speriton Det Care	d frage land	Andreas Brancia	Cost Is Low Look Is Cost Date of S	general Control	a lost geston de la	Sul	elly store soci		letter stown	House of the Control	Martin Harris	Den't Held In	Score	Weighted Score
8	Title: Customized honking Capability: Generate sound Domain: Automobile Customer: Car companies Application: Based on the noise in the environment the car is dynamically able to produce honking sounds that are most effective (Sophie Davis)	3		4 .	i 3		3	3	4	5	5	5	5	5	4		1 50	16
9	Title: Music to match your pace Capability: Generate sound Domain: Atheltics Customer: Nike Application: This would generate music to match your pace as you move (Sophie Davis)	4		5 (;		4	4	2	4	3	4	5	5	4		4 53	16.1

Q Matchmaking - Sophie

Capability 3: Video Generation



Q Ranking Rationale - Sophie

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As I was ranking my concepts I found that overall, my sound generation ideas ranked higher than my image generation and video generation ideas. This was due, in large part, to the technical feasibility. I also found that I ranked my sound generation ideas highly because I thought they were novel and therefore desirable.

An interesting thought that came to mind during the ranking process was just how much weight desire has on the overall viability of a product. While a product can be objectively financially viable or not, I think that if the desire exists, and the right investor is interested, then money will not be an issue. For example, when I was looking to rank my ideas, while a customized honking system might cost more than a tool to generate album cover images, there are over 200 million cars in the US and a lot of money in the automobile industry. So while the honking system might be more expensive, it will certainly have an eager market, ready to spend money.

Q Matchmaking - Eddie

Capability: Voice & Video Generation

	A	В	С	D	E	F	G	Н	1	J	К	L	M	N	0	Р	Q
1	Instructions: - Add concepts to the Generative AI concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet. - Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)). - Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain. - Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted average with different categories weighted differently (shown in the Weighted Score column)	Technology	A te Badily and a control of the con	able 5 Offine Religion	Model Ares	Halle legited high high high high high high high hig	Salls other Polices	nd Coale of	Market Ste	S. Massivel Privaci risk	Scould Petroli	deceted the state of the state	Low Linding Co.	day saintender	Low Herlitz Store	alest towards	
2	Generative Al Concept	Technica	I Feasibility	/		Financial \	/iability			Acceptan	ce/Desire					Score	Weighted Score
14	Generative AI Concept Title: Pocket Translator Capability: voice generation and translation Domain: language translation use same voice. Customer: Multi-linguo workers, students, teachers Application: (Eddie Wanq)	Technica 5	l Feasibility	4	4	Financial V	/iability	5	5	Acceptan	ce/Desire	5	5 8	5	5 !	Score	
	Title: Pocket Translator Capability: voice generation and translation Domain: language translation use same voice. Customer: Multi-linguo workers, students, teachers Application:	E E	I Feasibility	4	4	Financial V	/iability	5	5	Acceptan	4	5	5	5 .	5 !		18.2

Q Matchmaking - Eddie

Capability: Music Generation

1	Instructions: - Add concepts to the Generative AI concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet. - Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)). - Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain. - Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted average with different categories weighted differently (shown in the Weighted Score column)	Technology Technology	Are Estalia and Are State of the Option of the Control of the Cont	allahe Loft He	e labeled of the labe	Trestallation	d Control of the Rich of the R	And Cole to lot of the form	ould pay	EMBERINE CHARLEN	Social Petoric	profit is the state of the stat	Environment's	Bantagara	Low Heeffer He	rest towns	
2	Generative Al Concept	Technica	l Feasibili	ty		Financial	Viability			Acceptance	e/Desire					Score	Weighted Score
16	Title: Music Voice generator Capability: Create music using somebody's voice Domain: Music Customer: Artists, students, teacher Application: Similar to Music creation (Eddie Wang)	Ę	5 :	3 5	5 4	2	2	3	2	3	3	3	3	5	4	3 47	12.4
17	Title: Royal Free generator Capability: Creating Royalty Free bg music for cutomers in need Domain: Music Customer: Artists, students, teacher Application: Music creation												·				15.9
	(Eddie Wang)																

Q Matchmaking - Eddie

Capability: Picture Generation

Instruct	ion
Add on	noo

- Add concepts to the Generative Al concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet.
- Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)).
- Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain.
- Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted average with different categories weighted differently (shown in the
- Weighted Score column)



2	Generative Al Concept	Technica	l Feasibilit	ty		Financial	Viability			Acceptanc	e/Desire				Score	Weighted Score
18	Title: Instagram filter by color Capability: analyze the color of images Domain: pictures Customer: Artists, students, teacher Application: Similar to Music creation (Eddie Wang)		5 .	5	5 4	4	4	4 2	Ę	5 4	. 4	ı 5	5		61	16.6
19	Title: Foresnic artist Capability: Draw suspect portrait Domain: Law Customer: Police units Application: Use existing photos and features to generate criminal portrait (Eddie Wang)		4 .	5	5	4	4	4 4	į	. 1	1	5	3	5	48	14.6

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Q Ranking Rationale - Eddie

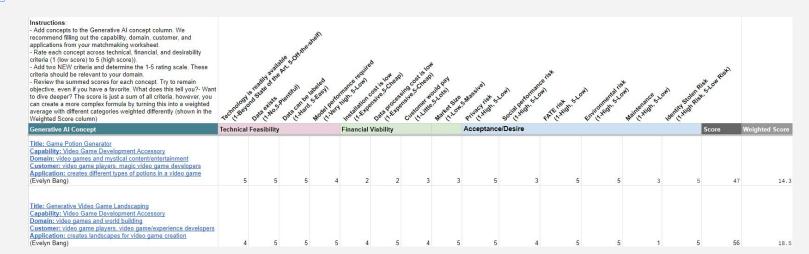
My main rationale for ranking was based on scores that I marked for each ideation I generated through matchmaking. The part of rating with most divergence was **financial feasibility**. In general, I rated products doing picture and video generation a relative low score since such project would have larger cost which would be unbearable when put into frequent use. Other than that, Both technical feasibility and desirability looked promising for creating those ideation in real practice.

Then, to finalize my top two ideations, I did a little research on existing models and read a little bit of the logistics of those models and practical examples on the market so far.

Q Matchmaking - Evelyn

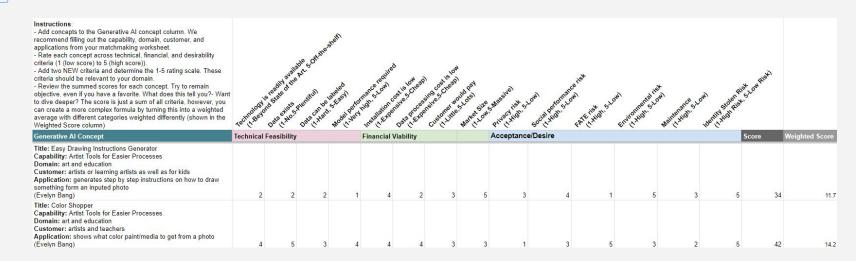
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Capability 1: Video Game Development Accessory (Top Pick)



Q Matchmaking - Evelyn

Capability 2: Artist Tools for Easier Processes



Q Matchmaking - Evelyn

Capability 3: Recreational Time Assistance

Instructions: - Add concepts to the Generative AI concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet. - Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)). - Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain. - Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted average with different categories weighted differently (shown in the Weighted Score column)	Technology	Para Para Para Para Para Para Para Para	A President of the Control of the Co	steet	Hange tedur	od Cost is low	ard Cost te la cost de	and participated by the property of the participated by the partic	Privacy lies	Social Paris	Julance itek	E risk of Sale	gan Europe English Ericker	Mailtenfine S.	Low Soler	Alet Low Ries W	
Generative Al Concept	Technical	Feasibility	/		Financial	Viability			Acceptan	ce/Desire						Score	Weighted Score
Title: Crochet Pattern Creator Capability: Recreational Time Assistance Domain: entertainment and art Customer: people interested in making crocheted objects that there might not be a tutorial online how to do Application: creates similar or same crochet patterns based on photo or video (doesn't always have to be a crocheted object (Evelyn Bang).	1	4	3	2	2		2 2		2	3	4	5	5	2	2 5	5 35	10.4
Title: Sewing Pattern Generator Capability: Recreational Time Assistance Domain: entertainment and art Customer: people who want to find sewing patterns for certain objects that they can't find easily Application: generates sewing patterns through photos/videos of an object (doesn't have to be clothes) (Evelyn Bang)	1	4	3	2	2		2 2	2 2	2	3	3	3	4	2	2 5	5 31	9.6

Q Ranking Rationale - Evelyn

My main goal for the reasons of picking certain capabilities was considering **low daily risks**. For example, the difference of generating a landscape for a video game is very low compared to generating a meeting plan for a team. In order to think that way, I looked towards entertainment and idea making rather than final product generation (like the meeting plan).

My top two picks were the most desirable and larger scope of customers out of the six ideas, since arts and crafts are not as desired for companies to buy and support compared to video game ideation tools.

Q Matchmaking - Shreya

Capability 1: Image Generation

	modes	te leadily atali	able Art.	Jabeled Jary	marce require	d Cost is low and cost is forced by the state of the stat	and cost is low	Jud Pay	Swager light 5	Low Low Estorne	ce liek	gar iroofterigites	t interlaince st	owi Stoler Kie	est Low Ries	
Generative Al Concept	Technical	Feasibility	Dar. V.v.	Wooling	Financial	Viability	Challe	Mar (1.t.	Acceptance	ce/Desire	KW, Gr.	Eleg Gra	Mar (1.1	Ide, Gr.	Score	Weighted Score
Title: Book cover generator Capability: Image generation Domain: Publishing Customer: Publishing houses Application: Generate book covers based on the book's theme & target audience	3	5	2	. 2	5	4	1	3	5		5 5	5	4	5	45	14.1
Title: System design generator Capability: Image generation Domain: Software/Product Management Customer: Tech companies Application: Create the system design for a product based on prompts on user requirements, system capacity, etc.	3	3	2	3	3	5	4	5	1		5 4	4	3	4	42	14.6

Q Matchmaking - Shreya

Capability 2: Video Generation

	Technology	of the state of the	able Art.	Model Aser	mange reduie	od le low end	Sind Cost to Comment	out pay	Anaseive Privacy riek S	Social peroff	arce lest	Environmental	Mantendre	Low Story	Hek Conkiek	
Generative Al Concept	Technical	Feasibility			Financial	Viability			Acceptano	ce/Desire					Score	Weighted Score
Title: Movie trailer generator Capability: Video generation Domain: Entertainment Customer: Production houses Application: Create the trailer of a movie based on text prompts & video input of the movie.	1	4	3	2	3	1	4	3	3	3	2	4	4	4	5 3	4 11.1
Title: Product videos for e-commerce Capability: Video generation Domain: Advertising Customer: E-Commerce companies Application: Create model-specific product videos based on feature prompts with voice-over.	5	5	4	4	5	5	2	5	3	3	5	5	5	2	5 5	3 17.5

Q Matchmaking - Shreya

Capability 3: Audio Generation

	Technology	to the state of th	Art.	Apple de la parti	Transe reduie	Cost to Low process	sind cost store	Sud Pay State Site	Swagaye)	Low Low Low County of the Coun	ge riek Swil	Environmental re	Maintenance 51	Henith Stolen	in the state of th	
Generative Al Concept	Technical	Feasibility	,		Financial	Viability			Acceptance	e/Desire					Score	Weighted Score
Title: Global movies Capability: Audio generation Domain: Entertainment Customer: Production houses Application: Dub movies across various languages.	5	5	5	3	4	4	3	4	2	3	3	3	4		44	15.1
Title: Online conductor Capability: Audio generation Domain: Music (Customer: Music enthusiasts Application: Modify existing songs to amplifyblur particular instruments for personalised listening experience.	5	5	5	4	5	5	1	2	1	4	. 5	5	5	Ę	47	15.2

Q Ranking Rationale - Shreya

The table shared by the professors provided a good framework for evaluating the different types of risks associated with any new product ideas. Hence, for me the priority was to consider the **overall risk rank**- then the **impact vs effort** score & **passion for the idea**.

For example- the product videos for e-commerce has the highest & the online conductor has the lowest impact. While the product videos again ranks the lowest on effort & the movie trailer generator ranks the highest for effort.

Given the above factors- my shortlisted ideas were:1

- Product videos for e-commerce
- 2. System design generator

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Capability 1: Image Generation

Instructions

- Add concepts to the Generative AI concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet.
- Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)).
- Add two NEW criteria and determine the 1-5 rating scale. These
- criteria should be relevant to your domain. - Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted

can create a more complex formula by turning this into a welconed															
Generative Al Concept	Technica	al Feasibilit	ty		Financia	al Viability			Acceptanc	e/Desire				Score	Weighted Score
Title: AI Personal Fitness Trainer Capability: Generate workout routines Domain: Fitness Customer: Fitness enthusiasts, gyms Application: Create personalized workout routines based on users' fitness levels and goals		4	3	3	4	1	3	3 (3 3	3	4 2	3	2	4 36	11.6
Title: Al Personalized Storyteller Capability: Generate interactive stories Domain: Entertainment Customer: Parents, educators Application: Create personalized bedtime or educational stories for kids		3	4	3	2	2	3	2 1	2 4	1 :	3 2	2	3	4 32	10.3



Capability 2: Sound Generation

Instructions:

- Add concepts to the Generative AI concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet.
- Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)).
- Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain.
- Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted

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	Technical Feasibility	Financial Viability		Acceptance/Desire Sco	re	N

Generative At Concept	rechnical	ii reasibility			Financia	ai viability			Acceptanc	elbesile					Score	weighted score
Title: Al Personal Fitness Trainer Capability: Generate workout routines Domain: Fitness Customer: Fitness enthusiasts, gyms Application: Create personalized workout routines based on users' fitness levels and goals	4	1	3 8	3	4	1	3	3 3	3 3	i 4	1 2	3	2	2 4	36	11.6
Title: AI Personalized Storyteller Capability: Generate interactive stories Domain: Entertainment Customer: Parents, educators Application: Create personalized bedtime or educational stories for kids	3	3 2	4 8	3	2	2	3	2 2	2 4	ı	3 2	2	3	3 4	32	10.3



Capability 3: Recreational Time Assistance

Instructions:

- Add concepts to the Generative AI concept column. We recommend filling out the capability, domain, customer, and
- applications from your matchmaking worksheet.
- Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)).
- Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain.
- Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted



Generative Al Concept	Technical	echnical Feasibility Fir					Financial Viability				ce/Desire	Score	Weighted Score			
Title: Al Artistic Image Assistant Capability: Generate art Domain: Art Customer: Artists, galleries Application: Assisting artists in creating art pieces or suggesting art styles	3	1	2	3	3	1	2		3	4	1 .	1 2	. 2	 3	4 30	0 10.1
Title: Al News Image Summarizer Capability: Generate concise news summaries Domain: Media Customer: News agencies, general public Application: Summarize lengthy news articles into concise points	2	:	2	2	1	4	2		3	5	3	1	5	 3	5 34	4 11.7

Q Ranking Rationale - Vijaya

In evaluating my concepts, I observed that the AI applications focused on specialized domains, like "Art" and "Fitness," generally secured higher scores than broader concepts like "Media" or "Entertainment." This was due to the perceived technical feasibility and the unique application. Additionally, there was a trend towards favoring applications that addressed specific, tangible needs, such as the "AI Recipe video Generator" for home cooks or the "AI Personal Fitness Trainer" for fitness enthusiasts. These ideas, rooted in daily routines and hobbies, seemed to hold a stronger desirability quotient, potentially because they resonate with daily consumer needs. While generating art or recipes may seem niche, they cater to expansive markets like home cooks or art enthusiasts. Conversely, while the "AI News Image Summarizer" for media had a large potential market, concerns regarding privacy and data labeling pulled down its feasibility. Furthermore, I introspected on the correlation between investment and desire. While something like the "AI Travel guide" might be technically challenging, the allure of virtual travel, especially in a post-pandemic world, could draw significant interest and investment. In summary, while technical feasibility is a vital criterion, the blend of market size, privacy considerations, and innate human desires play an equally significant role in the potential success of a generative AI concept.



Q Matchmaking - Xinfei

Capability 1: Tutorial Content Generation

Instructions:

- Add concepts to the Generative AI concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet.
- Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)).
- Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain.
- Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Wa to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted average with different categories weighted differently (shown in the Weighted Score column)

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Want	Technology to defect the state of the state	And the form of th	Market Site	geteralist, from the filter for the filter of the filter o	Stor Stor	
ed the	Technologian Cate and the Control of	Installative Data A Expericipation	Market J.Low	Philadeling to the stock of the state of the		
	Tankalani Faraikilika	Florestel Makille.		Accentance/Desire		a.

Generative Al Concept	Technical	l Feasibility	y .		Financial	Viability			Acceptance/Desire						Score	Weighted Score	
Title: Dance Choreography Simulator Capability: Tutorial Content Generation Domain: Performing Arts, Entertainment, Fitness Customer: Dance Schools and Studios, theatre, game company Application: Users can input a dance MV. The Al system will then segment the dance into distinct sections, modify the playback speed as needed, and produce tutorial videos from various perspectives. (Xinfei Cen)	3	3 (4 ,	4	5 4	4	4 .	1 2	2 4	3	3	5	. 4	4 3	45	14.8	
Title: Circuit Builder Tutor Capability: Tutorial Content Generation Domain: E-learning specifically for Electronics Customer: Engineering Schools, Electronics Training Programs Application: Users define an learning goal, and the Al provides corresponding electronic components and an initial circuit layout, enabling users to complete the design or experiment further. (Xinfei Cen)	E	5	4	5	4 4	5	4 :	3 8	3 5	i 4	4	5	5	5	5 51	16.5	

Q Matchmaking - Xinfei

Capability 2: Immersive Experience Tailoring for Emotional Mediation

Instructions:

- Add concepts to the Generative AI concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet.
- Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)).
- Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain.
- Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted average with different categories weighted differently (shown in the Weighted Score column)



Generative Al Concept	Technical	Feasibilit	y		Financial	Viability			Acceptanc	e/Desire					Score	Weighted Score
Title: Soundscape Simulator Capability: Immersive Experience Tailoring Domain: Mental Wellness, Audio Therapy Customer: Meditation Apps, Wellness Centers Application: Users specify a desired healing scenario, typically inspired by nature. The AI then seamlessly crafts and streams an immersive audio representation of that environment. (Xinfei Cen)	5		5	4	3 5	5 4	4 4	3	5	5	5 5	i 5	i - E	j .	5 53	3 17.1
Title: Dream Weaver Capability: Immersive Experience Tailoring Domain: Mental Wellness, VR Meditation, Therapeutic Relaxation Customer: Wellness Centers, Therapists, VR industries Application: Users narrate a cherished memory or describe a tranquil scene they wish to visualize. The Al then crafts immersive videos or VR experiences mirroring these descriptions (Xinfei Cana)	3		4	4	3 2	1	3 3	3	4	5		5			4 45	14.3

Q Matchmaking - Xinfei

Capability 3: Immersive Experience Tailoring for Emotional Mediation

Instructions:

Generative Al Concept

- Add concepts to the Generative Al concept column. We recommend filling out the capability, domain, customer, and applications from your matchmaking worksheet.
- Rate each concept across technical, financial, and desirability criteria (1 (low score) to 5 (high score)).
- Add two NEW criteria and determine the 1-5 rating scale. These criteria should be relevant to your domain.
- Review the summed scores for each concept. Try to remain objective, even if you have a favorite. What does this tell you?- Want to dive deeper? The score is just a sum of all criteria, however, you can create a more complex formula by turning this into a weighted average with different categories weighted differently (shown in the Weighted Score column)



Title: Al Chief Capability: Contextual Design Solution Generation Domain: Culinary Arts and Food Service Customer: restaurants, and catering businesses Application: Utilizing available ingredients, create unique meal recipes accompanied by tutorial videos, offering fresh culinary experiences without needing additional grocery shopping. (Xinfei Cen)	3	3	5	4	3	4	3	3	4	. 4	4	5 4	. 5	i 45	14.4
Title: Interiol Design Stimulator Capability: Contextual Design Solution Generation Domain: Interior Design, E-commerce Customer: Homeowners, Renters, Furniture Retailers Application: Users upload images of their desired interior design style along with their floor plan or photos of their space. The Al crafts a design that aligns with the style, and additionally provides shopping links for furnishings and decor. (Xinfai Capa)														40	15.8

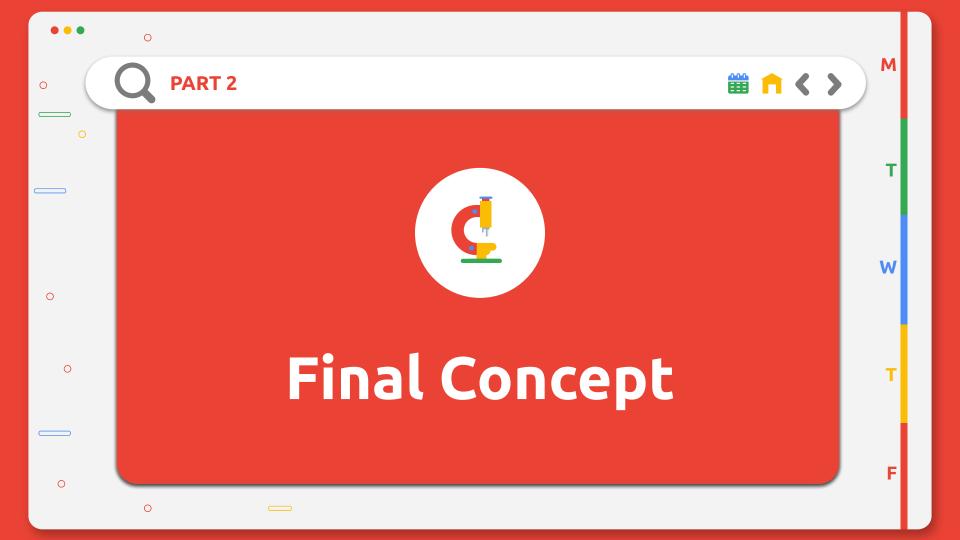
Q Ranking Rationale - Xinfei

When faced with ties or several ideas with similar rankings, my deliberation process often hinges on striking a **balance between market size and technological feasibility & cost**. While the utopian vision is to create a product that can profoundly impact everyone's life, our primary audience for these pitches is potential investors, not the end-users. Investors typically seek assurance of return on their investment. As such, defining a specific yet substantial target audience becomes crucial. Additionally, positioning the idea as low-hanging fruit—something innovative yet feasible with current technology—increases its attractiveness. This strategy ensures that while our innovation retains broad appeal, it remains grounded in practicality and market realities.

Q Critique



- Some highlighted feedback from Critique session:
 - 1. "Justify why users and stakeholders would be receptive to this technology. Elaborate on the reasons they might behave favorably towards it, given its unique features."
 - 2. "Identify specific target stakeholders who would be most inclined to invest in this technology."
 - 3. "Think deeper on real-world integration, especially integration in the business world. Tourism is one of the plausible application of simultaneous translation, but the scale of usage could be broader if integrated with enterprise."
 - 4. "Differentiate your solution from existing translation technologies. Highlight the limitations of current alternatives and pinpoint our technology's most innovative feature."
 - 5. "A user journey is good an effective and convincible way of introducing the product."



Q Concept Details



Tech: For our translator, we will use three existing models: a translation model, a text to speech model to generate natural and expressive AI voices, and a voice adjustment model to tune up the sound we generated. The last model is known as "voice cloning" and it involves capturing the essence of the speaker's vocal range, pronunciation and style in order to produce the same quality of speaking that a human would.

Financial & Desirability: There is a large value hidden in the potential business integration. Generally, every employee from top international company has meeting time on average of 8 hours per week. That number adds up to around 28 millions of hours in total. And among them, 40 percent are used for language translation. An AI-powered speech to speech translator can cut out at least half of the time wasted in translation, which will eventually save those company 7.4 billions of dollars.

Risk: In term of risk, there is potential job replacement for human translator as social risk, but such risk is considered as acceptable trade offs comparing the benefits brought for those top companies.

Voice-Voice Translator

An Audio Translator Using Generative Al

Team 5



Q User Journey



Panasonic





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Q User Journey

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今四半期は当社の セグメントが順調に 進んでいるように感 じます......

I feel like our segment is on track this quarter.....

3

1

Q Potential Values



28.56 Millions hours

Total Time spent in meeting

40 %

Spent in translation

\$37 Billion

Loss in unproductivity

\$7.4 Billion

Saved by live translation

Q Logistic of the Product





Installation

Devices with audio input, like smartphones, tablets, or computers



Data Collection

Videos/audios with talking, podcasts, or vocal music



Inferences

- Using audio and speech recognition using patterns of soundwaves
- Regurgitating/predicting patterns but with different words or phrases into other languages
 - Sound wave to sound wave parallels



Technical Feasibility

Description: Input style or lyrics and choose artist's voice or just a default male/female voice (Top 10)

Case: Uses current singers' voices and makes them sing some other song or type of song (Markiplier)

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Q Value Flow Chart



- 1. Cutting-edge Translation
- 2. Maintenance & enhancement
- 3. Integration Assistance
- 4. Strategic Market Edge



Online Meeting Platform (Zoom, Skype, MS Teams etc)

- 1. Technology Licensing
- 2. Insights & Analytics
- 3. User Community & Brand Prestige







International corporations (Apple, Samsung, etc.)

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- 1. Direct Integration to business
- Personalized User Experience:
 Al-synthesized translations using the user's own voice and tone.

\$\$\$/service

\$\$\$/service

Local mid size to small size companies

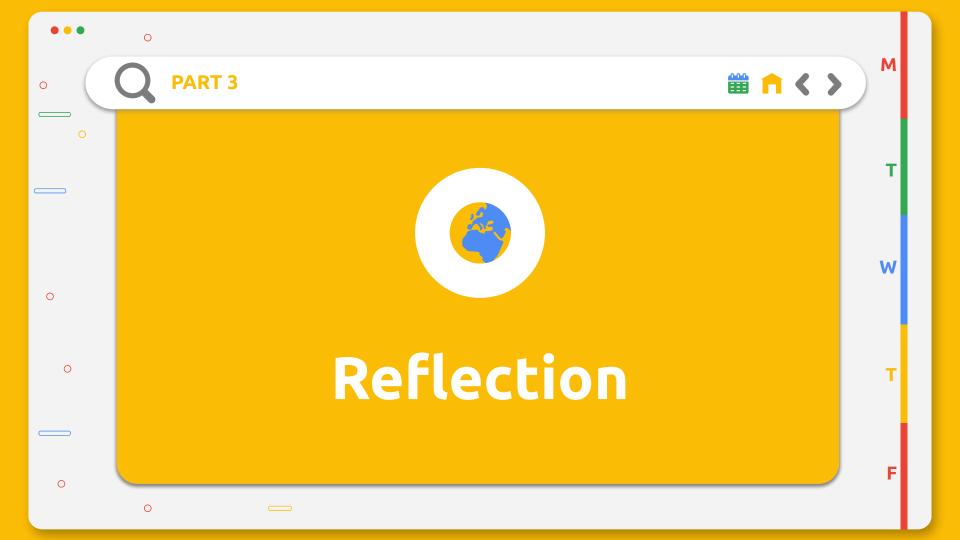
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Pocket Translator

Solution Architect





Q Matchmaking - Sophie

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I chose to ground my generative AI concepts around the capabilities of image, sound, and video generation. One pattern that rapidly emerged was that both of my video generation ideas were high value and high risk, while my image and sound generation ideas were all relatively low value and low risk. I think this pattern is interesting because it hints at the fact that videos can carry a significant amount of responsibility and with that, risk. At the same time however, they provide people with a sense of connection that neither sound nor imagery can. It was partially for this reason that our team decided to focus our concept on improving web communication tools through voice to voice translation. This concept really is the best of both worlds because it is provides high value for our stakeholders while also being relatively low risk in that it connects people in real-time which allows for greater forgiveness and flexibility as compared to pure playback video.

Q Critique - Sophie

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After our critique we narrowed down our target audience. We originally had thought of this tool as useful for tourists, and students, and business people. However, after our critique we narrowed it down to solely be a tool for business people. My teammate Shreya told us about her experience working at a company that communicated with people from Japan and how they were forced to rely on a human translator. A human translator can lead to disruptions, wasted time, and extra cost. After hearing this story we felt that it would be best to focus our translator on a solution to this problem and that is where we introduced the idea of a voice to voice translator. Not only would this address the issues of a human translator that we had previously identified, but it would also build trust with the company.



ln-general, At the beginning, I made a google drive as a way to store our documents. For our first group meeting, I made a agenda to facilitate the meeting. The goal was to finalize our idea to present, and our decision making process is:

- (Individual)Matchmaking to come up with two best ideas
- (Group) Meet and each of us did a 2 mins quick pitch on the two best ideas we had
- (individually) Vote the top three ideas and select the one with most votes as our final idea to dig in.
- (Group) Discussion and task distribution

Meeting Agenda 09/30/2023

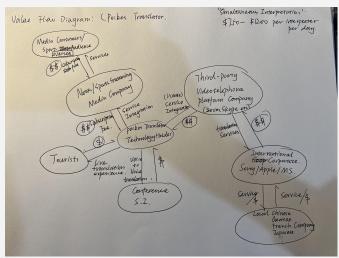
- 1. Everyone Pitch their own ideas
- 2. quick vote deciding what ideas we gonna stick with
- 3. discuss what we put on our slides and assign tasks by parts. a. Upload a copy of your 5 slide pitch deck as a PDF file. Two additional ranking criteria
- Questions session
- 5. Decided who will present on Monday
- 6. Sunday: Tomorrow 14:00 pm rehearsal



After the Critique Session, we made following adjustments:

1. Shift our focus from **tourism** to **business integration** and application. My main job is narrowing down the scope to specific stakeholders such as **(Zoom, Skype, etc)** and articulate the ideal value flow chart between those businesses and the voice-to-voice translator.

One thing I want to point out is that I incorporate small to mid-size local company into the value flow because those international corporations might direct deal business with those locals, where translator could be used as a tool to facilitate the conversations.





In our first 4-mins pitch, we were overtime. The presentation was 3 mins longer than expected and the result was not promising. In our review meeting, we thought that Giving presentation as a group disrupted the flow of speech when switch and made an agreement on solo presentation. I took that responsibility and wrote a script for the presentation.

In the script we agreed to use one of our teammates, Shreya's example of her experience at Panasonic, India as an intro to answer one question we got from CRIT that who want this translator first? Who will be the first to pay and gain values from this product.



3. In order to show a clear user journey, we thought it would be better to have a visual element to explain how simultaneous translation works.

I made the graphs to show a clear user journey of how the translator could be used in business meeting across the globe.

今四半期は当社の セグメントが順調に 進んでいるように感 じます......



I feel like our segment is on track this quarter.....



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Q Reflection - Evelyn (1/2)



Three Starting Places

- 1. Thinking about textless generation, what does that include?
 - Rejecting any ideas that consider linguistics: reading, some posters, closed captions, etc.
- 2. What is something simple that people want or need?
 - Simple => something small and specific that will help a dedicated group of people
 - Tools are a great starting place for small specific generation
- 3. Where can this product be sold? Is it risky?
 - Who will want this product? Why would they want it? What does that mean for the needs of people in this industry? Does that mean that there are other ways to try to solve this problem?
 - What kinds of risks are there? What is the best way to approach this problem and how can we get rid of it through ideating on other perspectives?

Q Reflection - Evelyn (2/2)



Considering these starting points, I tried to consider what kinds of ideas that would favor people, where the ideas aren't huge projects but are time reducing and somewhat game changing. After we decided as a team to go with a generative translator, the critique from some teams we got was about the concreteness of the technicalities of our translator as well as being more specific about who our customers are as well as their interests.

What I would like to change if we had more time would be to do more research about generative voices and sound to sound translations (or transformations) in order to get a better understanding of what our product would look like.

1. Three starting places

Think for output other than text for GenAl

- Audio, Video, Image

Expand from work experience/hobbies

- I like listening to music, reading & have worked as a product manager.
- Expanding on that, I thought about which common businesses catering to these hobbies constitute regular, repetitive tasks.
- As a PM, I had to scramble through multiple agencies for getting high-quality videos made for the speaker systems. I realised that majority of the features are common & can be denoted through similar images/video clips. This was one area of consideration since the application can be expanded beyond just consumer durables.

Consider the risks associated with commercialisation

___ Consider all the parameters defined in the risk assessment framework.

2. Matchmaking

One of my initial ideas was generating different versions of the same song based on the user's preference for a particular instrument & amplifying that one.

Using the process of matchmaking, I tried to think about other modes of entertainment. And this was watching movies/TV shows. With OTT platforms proliferating, their users are turning global. In order to truly extract value from the same content- it makes sense for them to make the content accessible to different languages. If done automatically, this could drastically increase their Rol.

Another repetitive task for this customer is cutting trailers. With contextual understanding & video output systems getting better, I thought this could be an interesting use-case.

3. Critique

After the first brainstorming session with the team, we chose Eddie's idea of audio-audio translator since it was the easiest to implement, high impact idea.

We presented to Dan & two other teams and received valuable feedback. My main takeaway was to find a specific use-case or domain & figure out who wants the product the most- hence would be willing to pay the most.

I looked back on my work experience & suggested that a good application of live translation would be in MNCs because regular meetings take place amongst stakeholders from different countries, speaking different languages. Personality & tone are key factors of non-verbal communication that are required for trust & collaboration.

Q Reflection - Vijaya



1. Three starting places

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<u>Personalization in day-to-day routine</u>: Is it relatable to the audience? Is it used on a day to day basis or one time / occasional use? Will users find the need of AI assistance or current solutions are working fine? Will using AI create good value for users to pay for their day-to-day tasks

<u>Domain-Specific solutions catering to niche markets:</u> Is it catering to a specific use case or it is generic solution, can it be differentiated among existing AI solutions and use cases? Is it a long term business viable solution that users will be willing to pay or it is a spray and pray approach generic solution?

How does a user want to consume the AI information? Which daily activity we prefer to listen and learn, see and learn, read and learn. Which activities need AI assistance and which activities works fine even without AI. For example, watching movie versus listening movie, watching fitness routine versus listening routine. Likewise, I considered which daily activity we prefer to listen or just read or watch a video and learn from

Q Reflection - Vijaya



2. Matchmaking

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I realized that customers will have lot of digital touch points where we can introduce the AI help to enable this. But I realized that not every AI solution, customers would be willing to pay for. There are lot of solutions, substitutes and alternatives to user problem. Having an AI solution that users willing to pay for requires designing it in such a way that it has exponential value. I also understood that for B2C business cases, I need to consider the frequency of usage, and how much users will use it on daily basis so that they will find value in purchase. Discussion of points helped me in terms of understanding which one should I go ahead with because each member brought their own perspective on the topic which added to holistic analysis

Q Reflection - Vijaya



3. Critique

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Feedback from classmates and professors helped me understand what are the factors we should consider while working on a business idea. For example, Professor gave feedback that we need to build business case for company, value proposition for customers to know total addressable market(TAM) and revenue potential of the idea.

Market sizing - Based on feedback, I worked on TAM and marketing sizing analysis as shown in the excel here. It helped us validate if there are paying users, what is the size of the paying users and future scope if we need to expand in the same product category.

Market sizing for Translators in office meetings	Count	Assumptions considered	Sources used Link
Total companies	100	Large scale- >500B market cap, Mid scale - 300-500B, small scale <300B	
Large scale	15		
Mid scale	25		
Small scale	60		
Total Offices each company has in a country			
Large scale	126	Considered Amazon Offices in US and assumed same across large scale	Link
Mid scale	63	Assumed Mid scale will be half of that of Large scale based on market cap	
Small scale	31.5	Similar for Small scale	
Total number of offices in each country			
Large scale	1890		
Mid scale	1575		
Small scale	1890		
Total number of countries a fortune company expanded			
Large scale	50	Considered Amazon expansion and assumed the same for other companies	
Mid scale	40	Considered Mastercard, a mid scale company and used it to extrapolate	Link
Small scale	40	Considered Adobe presence and extrapolated	Link
Total meeting rooms in one office			
Large scale	30	Based on the above companies office space details, it is extrapolated	
Mid scale	15		
Small scale	8		
Total meeting rooms present in the all fortune 100 companies	94500		
Total products needed - Market size	200K		

made sure that one sure delivers which coherent and concise.

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Value proposition - We also got feedback to show the value proposition. So, I worked on impact analysis to capture both quantitative value of solution. Excel analysis is here.

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Total fortune companies considered	100		Link
Total employees in each company	0.0357		
Total employees in fortune 100 companies	3.57	(in million)	
Total meetings taken by them in a week	8		
Average time spent in each meeting	1	(in hours)	
Total time spent in meetings	28.56	(in million hours)	
Time spent in translation	0.4	(in hours)	Assumed based on cx research
Due to translator time saved	0.2		Assumed based on cx research
Total time saved	5.712	(in million hours)	
Total loss in unproductive meetings	37	(in billion dollar)	
Dollars saved due to translator	7.4	(in billion dollar)	

<u>Scope down to corporates as customers</u>- Initially, we discussed around different customer segments, based on feedback, we realised that we need to design solutions that customers are willing to pay. Hence, we went ahead with corporates as a B2B solution

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Q Reflection - Xinfei



1. Three starting places

1. Media other than text suitable for generative AI

Visual (i.e. Images, videos, and graphics); Audio (i.e. Soundscapes, music); Tactile (i.e. Though challenging, potential exists for haptic feedback); Multimodal (i.e. VR, AR, and video games)

- 2. What are some potential risks other than listed ones for generative AI
 Intellectual Property Violations, Algorithmic Bias, Job Displacement,
 Maintenance Overheads, Diminution of Human Capabilities, Monopolization...
- 3. Under what circumstances would individuals prefer AI-generated content over human-driven creative work?

Needs for rapidity and efficiency, extensive personalization, large-scale data analysis, tasks surpassing human capabilities, and uniform consistency...

Q Reflection - Xinfei



2. Matchmaking

Building on our initial discussions, I honed in on the themes of personalization and mass production. For instance, I explored the creation of personalized mediation materials, where users can input their desired environment or imagery to receive a tailored output. Conversely, for mass production, tutorial material generation serves as a prime example, because crafting a single question or a dance tutorial piece can be time-intensive. However, I faced challenges in the early stages of ideation. Some ideas, while high in value and low in risk, were heavily dependent on technology. Others were technologically feasible but lacked a clear market focus. Engaging with my teammates provided clarity. Their projects inspired me to first identify a specific target audience or domain, such as the gaming industry, and then refine my ideas, be it for personalized designs or tutorial content creation.

Q Reflection - Xinfei



3. Critique

The feedback from the critique session was enlightening. The critique suggesting we shouldn't involve text-based NLP made it clear that our pitch leaned heavily on our tool's translation capabilities. However, our standout feature is the voice synthesis that tailors to users' unique voice and tone. While I recognize this does incorporate elements of text-based NLP, it at least sets us apart from other existing online translators like Google Translate and DeepL. I also appreciate my teammates for putting forward the possibility of textless NLP. This was unfamiliar territory for me, but subsequent research confirmed its existence, which broadened my horizons. I'm also grateful for the external critiques. They emphasized the importance of honing our focus on a specific target audience, like international corporations, rather than chasing a one-size-fits-all solution for all languages and situations, whether in business meetings or travel.

- Time Wasted In Meetings: 59+ Meeting Statistics, https://www.crossrivertherapy.com/meeting-statistics
- An introduction to AI translation,
 https://wandb.ai/araz-m/An%20Introduction%20to%20AI%20Translation/reports/An-Introduction-to-AI-Translation--VmlldzozNTIxODA1#will-ai-replace-translators?
- The Importance and Challenges of AI Text-to-Speech,
 https://blog.pangeanic.com/challenges-of-ai-text-to-speech#:~:text=Text%2Dto%2Dspeech%20(TTS,smartphones%20and%20tablets%20to%20computers.