



G-Cloud 14

Emotech SYNC AI Video & Animation

Service definition document document

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1. Service Information

We offer two different solutions for our SYNC AI technology. One is SYNC AI Video that allows the user to generate realistic talking avatar videos with text input. Another is SYNC AI Animation for animation generation. Users can choose the one that fits their use cases:

1.1 SYNC AI Video

Generate realistic talking avatar videos from our wide range of character library.

- Create your own AI avatar video in seconds

Simply input text or your own audio alongside a transcript to generate impressive AI talking avatar videos – it's never been easier!

- INTELLIGENT & ACCURATE

SYNC AI generates human-like lip, tongue and micro expression animations that accurately represent your speech audio and script. This brings the perfect human touch to your marketing videos to keep potential customers engaged and interested.

- SPEED & EFFICIENCY

The days of hiring a studio and spending hours recording yourself are over. You no longer need to worry about being on camera as our avatars are ready to do the job for you in minutes! SYNC AI saves you time and money without compromising on video quality.

- MULTIPLE LANGUAGES

Generate animations in English, Chinese Mandarin, Arabic, French, German, Italian, Japanese, or Russian. If you need a different language – just let us know! New languages can be achieved with a quick turnaround time, ranging from days to a few weeks.

- SOLUTIONS CUSTOMISED FOR DIFFERENT SCENARIOS

- Web App

The Lipsync AI App provides you with a simplistic and friendly user interface to visually setup your videos and generate your content with ease.

- API

For the more technical oriented teams, our API allows you to apply the technology quickly and effectively to your existing software.

1.2 SYNC AI Animation

Generate animation files in fbx or csv format for your animation softwares.

Automate your Gaming, VFX, or Production Speech Animation pipeline.

- Reduce production costs

Generate animation files in seconds. Simply input your text, or audio and a transcript, and SYNC AI will produce animation curves at the click of a button.

- Free your artists

Remove the need for manual animation. Choose the csv file option to animate your MetaHumans in Unreal Engine, or the fbx file to import into your software of choice (Maya, Blender, Unity and more!).

- Human-like speech

LipSync and FaceSync animations are backed by state of the art AI research, allowing you to truly bring your characters to life.

- Automate your Pipeline

Just input your desired audio or transcript, and SYNC AI will generate natural speech animations for you.

- Rig Compatibility

Our technology provides blendshape values for either ARKit rigs or MetaHuman rigs for Unreal Engine.

- Multilingual support

Generate animations in English, Chinese Mandarin, Arabic, French, German, Italian, Portuguese, Vietnamese, Japanese, Russian, Hindi or Korean.

1.3 Supported Languages

The platform currently supports the following languages:

1. English (US)
2. English (UK)
3. Arabic
4. Portuguese (Portugal)
5. Portuguese (Brazil)

6. Spanish (Spain)
7. Spanish (US)
8. Italian
9. French
10. German
11. Vietnamese
12. Korean
13. Hindi
14. Russian
15. Chinese (Mandarin)

1.4 Access through the UI

1.4.1 Sign-up and Log-in

Accessing the SYNC AI platform is straightforward. Users only need to use the browser such as Google Chrome or Microsoft Edge to visit the URL of the platform, where the platform will prompt the user to Sign-up or login (Figure 1). New users are able to sign up using email addresses, and set up passwords.

For users covered by the contract, they will be directed directly to the user interface and be able to transcribe as soon as they are logged in.

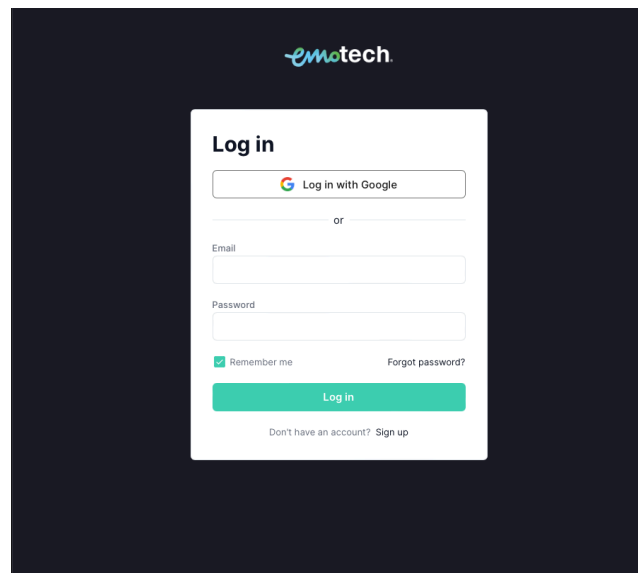


Figure 1: Sign-up and Log-in

1.4.2 SYNC AI Video Generation UI

For SYNC AI Video Generation users, this UI will allow them to:

- 1) Select Avatar
- 2) Decide Happiness level
- 3) Change background colour
- 4) Select camera angles
- 5) Select language
- 6) Input text (and audio)
- 7) And generate video for download

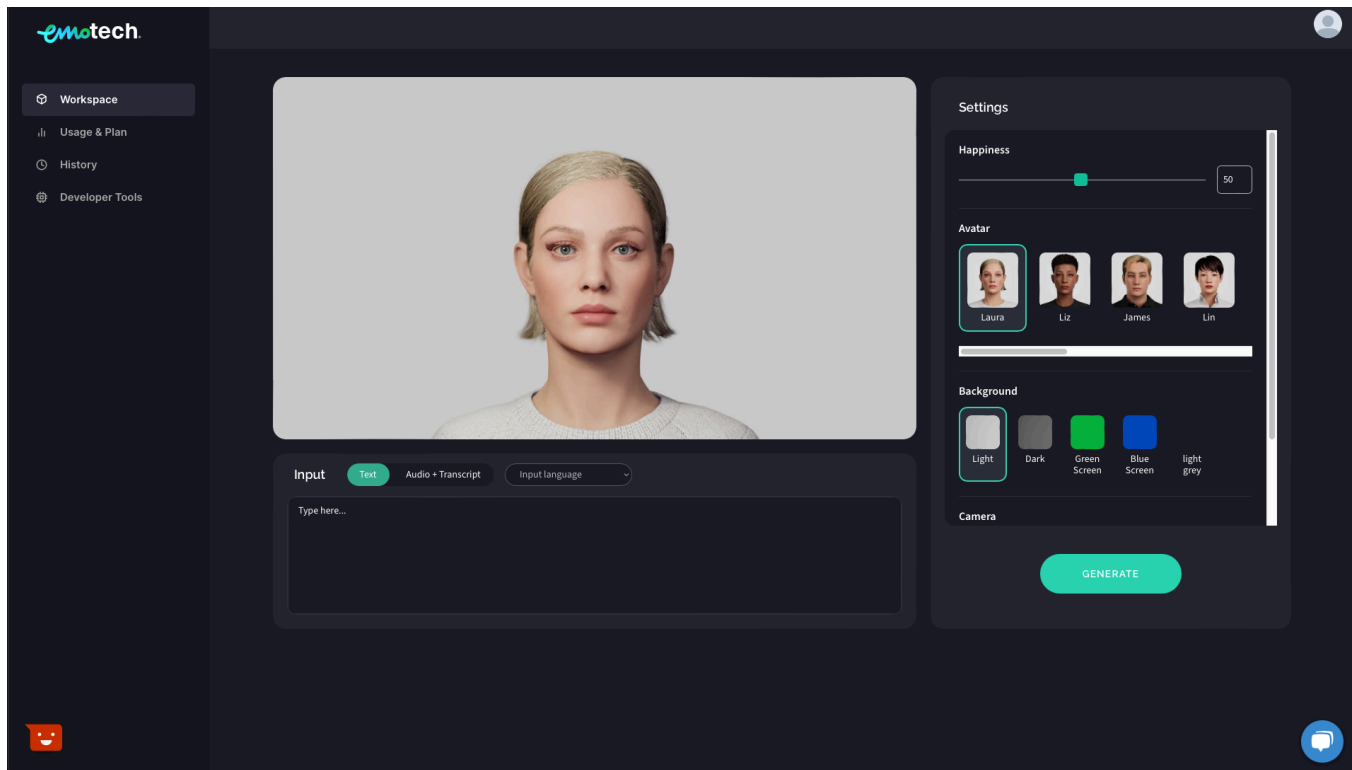


Figure 2: SYNC AI Video Generation UI

1.4.3 SYNC AI Animation Generation

For SYNC AI Video Generation users, this UI will allow them to:

- 1) Select Animation Format: ARKit (FBX) or Metahumans (CSV)
- 2) Decide Happiness level
- 3) Select language
- 4) Input text (and audio)
- 5) And generate animation for download

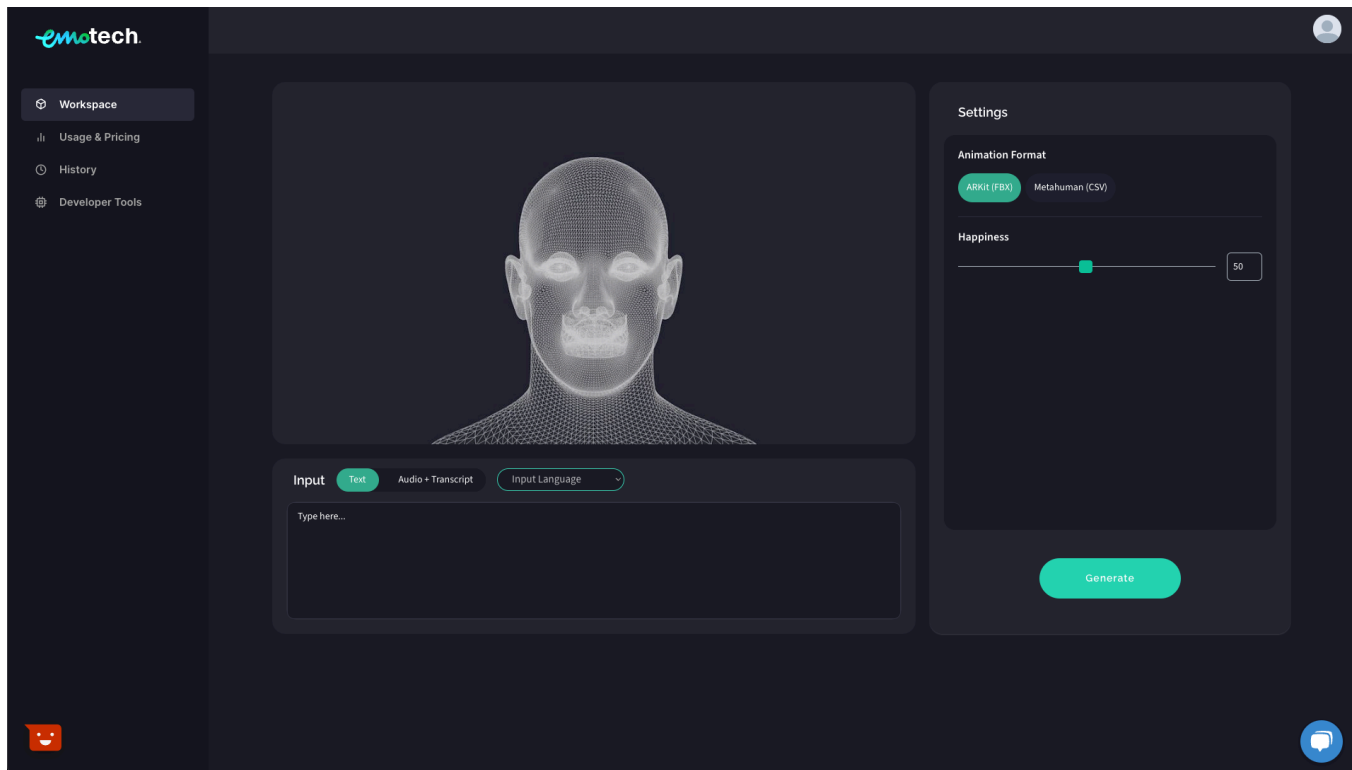


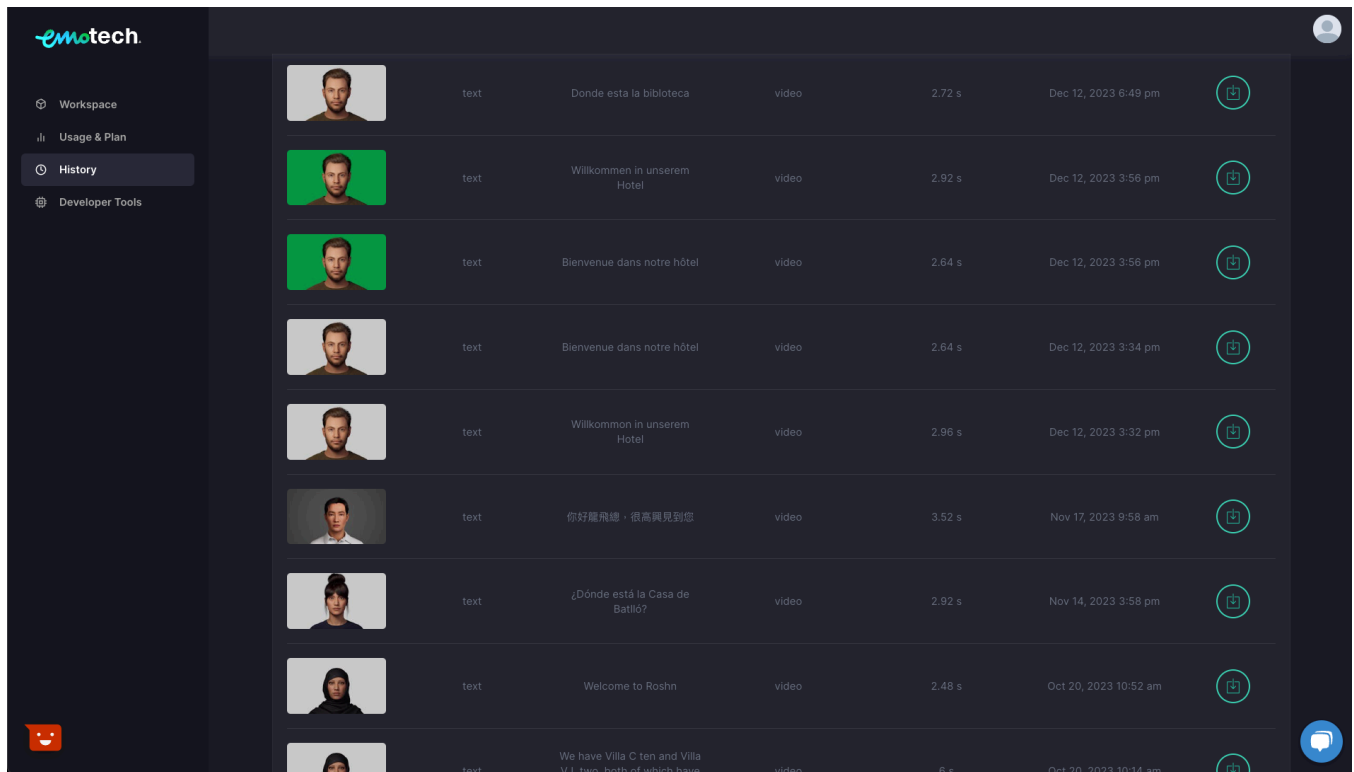
Figure 3: SYNC AI Animation Generation UI

1.4.4 History

To review previously performed SYNC AI tasks and delete unwanted records, users can visit the History section. Here the user will see the list of historical tasks, download the animation or video again and delete the record (Figure 4)..

1.5 Access with API (Developer Tools)

For bulk access and integration, API access is available. The API access key and the access information are available at the “Developer Tools” section (Figure 5).





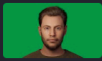



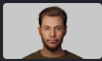







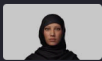



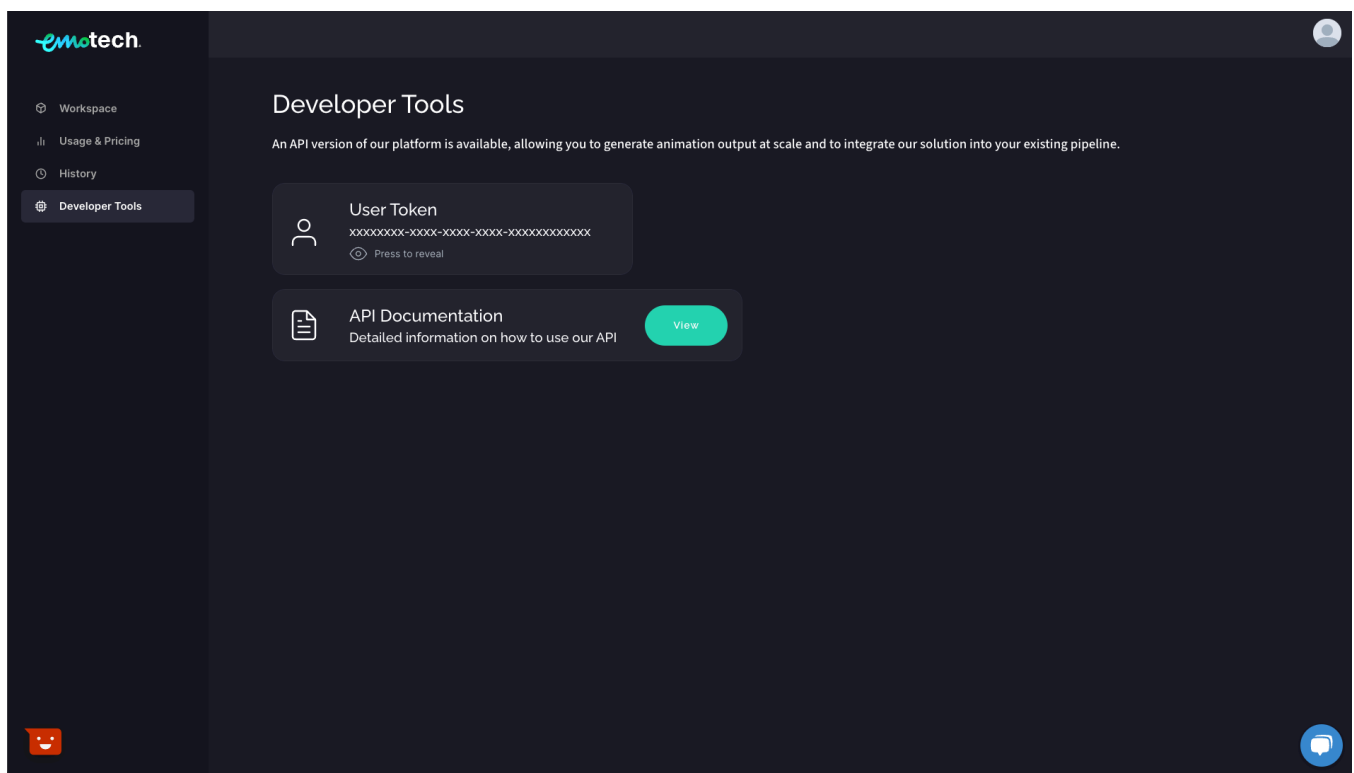

Avatar	Type	Text	Video	Duration	Timestamp	Actions
	text	Donde esta la biblioteca	video	2.72 s	Dec 12, 2023 6:49 pm	
	text	Willkommen in unserem Hotel	video	2.92 s	Dec 12, 2023 3:56 pm	
	text	Bienvenue dans notre hôtel	video	2.64 s	Dec 12, 2023 3:56 pm	
	text	Bienvenue dans notre hôtel	video	2.64 s	Dec 12, 2023 3:34 pm	
	text	Willkommen in unserem Hotel	video	2.96 s	Dec 12, 2023 3:32 pm	
	text	你好羅飛總，很高興見到您	video	3.52 s	Nov 17, 2023 9:58 am	
	text	¿Dónde está la Casa de Batlló?	video	2.92 s	Nov 14, 2023 3:58 pm	
	text	Welcome to Roshn	video	2.48 s	Oct 20, 2023 10:52 am	
	text	We have Villa C ten and Villa	video	6 s	Oct 20, 2023 10:14 am	


Figure 4: History of previous tasks




Developer Tools

An API version of our platform is available, allowing you to generate animation output at scale and to integrate our solution into your existing pipeline.



User Token
xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx
 Press to reveal



API Documentation
Detailed information on how to use our API

[View](#)

Figure 5: Developer Tools for API access

2. Solution Advantages

Emotech stands at the forefront with its innovative Interactive Digital Avatars. Utilising state-of-the-art artificial intelligence, including the latest Large Language Models (LLMs) and Retrievable Augmented Generation (RAG) technologies, these avatars enhance digital interactions across public sector interfaces, offering a dynamic and user-friendly solution that revolutionises how public services communicate with citizens.

2.1 Advanced AI and Latest Technologies

Emotech's Digital Ambassadors are powered by advanced Speech-to-Text (STT) and Text-to-Speech (TTS) capabilities and are further enhanced by the latest developments in LLMs and RAG. This integration allows the avatars to process and generate responses with a depth of understanding and contextual relevance previously unattainable, facilitating real-time interactions that closely mimic human nuances with exceptional accuracy. The use of SYNC.AI technology ensures that these interactions are not only realistic but also engaging.

The flexibility of Emotech's avatars enables them to perform a wide range of functions, from fielding enquiries to facilitating complex transactions and data visualisations. This versatility makes them indispensable across various governmental departments, enhancing accessibility and improving efficiency.

2.2 Bespoke Customisation

A key advantage of Emotech's Digital Ambassadors is their high degree of customisation. Each avatar is meticulously crafted to reflect the branding and ethos of the specific governmental department it serves, ensuring it resonates well with its intended audience. This customisation extends beyond visual aesthetics to include tailored functionalities that align with unique operational needs, seamlessly integrating into existing digital infrastructures.

2.3 Uncompromised Security

Recognising the critical importance of security, Emotech offers robust security options tailored to each deployment, with flexible solutions available for both cloud-based and on-premises implementations. These systems are designed to meet stringent security standards, safeguarding sensitive data while providing scalable and reliable performance. Emotech's infrastructure supports comprehensive data integration capabilities, enabling seamless connections with existing customer databases and ensuring data integrity is maintained at all times.

2.4 Diverse Sector Applications

Emotech's Interactive Digital Avatars are transforming public sector engagements by making services more accessible and interactive. From healthcare to education and local government, these avatars are setting new standards for service delivery. For instance, in healthcare, avatars can guide patients through treatment options and appointment scheduling, while in education, they can support learning by interacting dynamically with students.

2.5 Multilingual

Emotech's Interactive Digital Avatars are designed to operate seamlessly across more than 20 languages, making them an ideal solution for diverse cultural and linguistic environments within the UK and beyond. This multilingual capability ensures that all users, regardless of their language, can interact effectively with public services. By incorporating extensive language support, Emotech's avatars can deliver personalised and inclusive experiences, thus broadening access and enhancing communication across various sectors of government.

2.6 Low Latency Performance

A critical feature of Emotech's Interactive Digital Avatars is their low-latency response times, which are essential for maintaining smooth and efficient user interactions. This is only achievable with Emotech as Emotech has full control of the pipeline from Speech-to-Text, LLMs, Text-to-Speech, and Avatar animation. This rapid performance allows the avatars to provide real-time feedback and support to users. Such speed is crucial in dynamic environments where timely information and swift service are paramount, ensuring that user engagements are not only effective but also satisfying.

2.7 Accurate Lip Sync Technology

The realism of Emotech's avatars is significantly enhanced by their accurate lip-sync capabilities, thanks to advanced SYNC.AI technology. This feature ensures that the avatars' lip movements are perfectly synchronised with their spoken output, enhancing the natural feel of interactions and boosting the credibility of the digital representatives. Accurate lip-syncing is particularly important in delivering clear and comprehensible communications, which can improve user trust and engagement in digital government services.

2.8 Future-Proofing Public Services

As Emotech continues to innovate, the potential for these Interactive Digital Avatars within the G-Cloud framework is expansive. Future developments are expected to include even greater emotional intelligence and deeper learning capabilities, which will further personalise and enhance the user experience, making public service interactions as intuitive and natural as talking to a human.

2.9 Conclusion

Emotech's commitment to developing these sophisticated digital solutions reflects its dedication to improving public sector communication. As digital needs evolve, Emotech's avatars stand ready to meet these challenges, promising a smarter, more connected future for public services.

Governmental bodies are encouraged to explore how Emotech's Interactive Digital Avatars can revolutionise their service offerings. For further details or to arrange a demonstration, please visit Emotech's website or contact their dedicated public sector team.

3. Emotech introduction

3.1 Introduction

Emotech has more than eight years of experience in developing cutting-edge AI Solutions including Speech Technologies, Language Understanding and Digital Avatars. We have long-term collaborations with world-leading academic institutions such as University College London, Cambridge, Oxford, etc. Our solutions are serving many clients in the Middle East including UAE and KSA. For our products we received numerous awards including four innovation awards at the most prestigious Consumer Electronics Show (CES) in Las Vegas.

At the heart of our organisation is an exceptional group of more than 40 individuals, embodying the dynamic spirit of entrepreneurship. Emotech has three exceptional co-founders covering three main pillars of any successful AI business: Product, Investments and Technology. We have noticeable academic advisors such as John Shawe Taylor who is also a chairman of the UNESCO AI and Yvonne Rogers who is a Renowned researcher in the field of human-computer interactions and a winner of the British Academy of Engineering and Physical Sciences Award. Both from the world-leading university UCL in London. Our team members come from diverse backgrounds and they have experience working in companies such as Apple, Santander, Ogilvy.

For more information, please visit our website at <https://www.emotech.ai/>

3.2 EMOTECH'S ADVANTAGES

Below are highlighted several Emotech's advantages but not limited to. The comparison is related to "Industrial supplier" which can be any other AI company or "Academic supplier" that represents research institutes which usually have published fancy technologies. However, their technologies are not proven to be working in the commercial environments. Therefore, it is very risky to count on them to turn their internal research projects into workable solutions solving real-world use-cases.

	Emotech	Industrial supplier	Academic supplier	Note
Deployed NLP Solutions	YES	LIMITED	NO	Emotech has significant experience running NLP deployments across the Middle East including UAE and KSA.
Understanding use-case	HIGH	MED	LOW	From working for several years in the NLP industry and

				through real deployments of NLP solutions, Emotech has gained valuable insights of market needs
Level of support	HIGH	MID	MID	Emotech provides exceptional support by leading experts in the industry.
Delivery time of a working solution	8 months	12 months	18 months	Emotech technology readiness is above anyone else. Phase 1 solution is scheduled to be delivered within 2.5 months.
Production-designed systems	HIGH	HIGH	LOW	It requires a lot of expertise and industrial experience to build robust engineering solutions that are highly scalable, modular and secure.
Industrial/user experience	HIGH	HIGH	LOW	One of our academic advisors is Yvonne Rogers who is a Renowned researcher in the field of human-computer interactions and a winner of the British Academy of Engineering and Physical Sciences Award
Product Design	HIGH	MID	NO	It's not just about technology. Emotech offers experienced product design to build solutions that will benefit users. We received numerous awards for our products including four times CES innovation award.
Years of experience in AI industries	60	?	?	Emotech's researchers have accumulated more than 60 years of combined experience working in AI industries.

Arabic Speech Technologies	HIGH	MID	HIGH	The Arabic language is very complex including many dialects and different written forms. It's not common to have as many insights as Emotech.
Languages spoken by the team	>20	?	?	More than 20 different languages are spoken within the Emotech multinational team.
RTF (real-time factor)	LOW	MID	HIGH	RTF is very crucial to ensure a responsive and smooth user experience. Emotech's strong engineering team has many years of experience by optimising service execution times.