AITISMA

The chat bot for parents with autistic children





SDAIA الهنة السعودية للبيانات والذكاء الاصطناعي Saudi Data & Al Authority

البرنــامـج الوطــني لتنمية تقنية المعلومات National Technology Development Program

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What Aitisma aims to help with

Parents who have children that suffer from Autism, often have a problem communicating with them.

Since kids with Autism learn in different ways, they do not copy their parents behaviour, they don't learn speech the same way other kids do, and they do not learn about social behaviour from mimicking others.

Because of that, parents face different issue when trying to deal with them, it can be really difficult for them to teach or communicate with the child as they would for a regular child.

In order for us to help these parents, we are in the process of building a training model, to specifically learn how to be a helping hand to parents who need help in teaching their children about different behavioral subjects and different social situations.

And for a more specific approach, help parents who are afraid or unsure of how to take the first step forward, as some parents will be shy or scared of social stigma surrounding this issue.









The prototype scope

Autism as a condition widely varies from child to child, there are multiple sides that need to be measured in order to correctly start a rehabilitation plan.

Since Autism is a brain condition, and not an illness, there is no "cure" for it. However, people who suffer from Autism go under a rehabilitation process that needs to be tailored to them depending on what they need to learn.

And for the plan to be successful, there are multiple measurement units to be used, for our prototype, we are going with the Gilliam Autism Rating Scale, or GARS for short.

And after that, depending on the GARS scale, the rehabilitation plan will alter.

For this specific prototype, considering the time constraints, the bot will try to determine whether or not your child needs to be seen by a specialist.

Most importantly it helps parents schedule and manage their appointments with specialized doctors and clinic/centers







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What is your Solution?

Aitisma uses LLM (Language learning model) to understand the parents language and communicate with them as a human-being would, so it's easier to manage plans, schedule appointments, chat with the doctor, and provide resources and guidance.

Aitisma is prompt engineered to do many things (it's not just a chatGPT)

Technologies used

- ReactJS & React Native (Frontend)
 Laravel (Backend)
- OpenAI ChatGPT (AI LLM)









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Business model

For the business model, after some thoughts, we eliminated the following models.

Ad based revenue, the model with increase user frustration and for a medical geared app, users will lose trust fast and will get interrupted while using it.

One time payment, this model requires the program to be widely known and to come from a very reputable company, and for this model to generate revenue it needs a lot of users to be convinced enough to pay immediately.

With the above thought process, and considering the sensitivity of the issue we are working with.

We decided to go with a monthly subscription model with the following points.

- 1 This is a widely used model that most users will understand
- 2 This model generates monthly revenue that can be calculated and predicted

3- This model can be altered easily for our purposes, according to specialists, after a child has a rehabilitation plan, they will usually show improvement after 3 months.

4- So with the above point, the user can start using the program for free for the first 3 months, so when they feel like the program is providing actual value to them, they will be more incentivized to subscribe after seeing the value and results.











What is the Future?

Considering that the prototype shown is in an MVP or proof of concept stage, it will work with basic functionality.

But in the future, the main improvements will be as follows.

1- Incorporate specialists in order to improve the learning model to be more accurate and provide more interactive solutions in the form of real life activities.

2- With the help of the specialists, expand the app to be used by parents, children, and medical professionals.

3- Aim to make the app to be the go-to center for accurate medical information in our context.

4- Create a community for parents to reach out to other parents.

5- Create a community for specialists to reach out to each other from different parts of the world.

6- Create a database of professionals in order to guide the parents towards the nearest and most reputable medical facility to help them

7- Allow parents to reach out to specialists from all over the world.





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Improving the model

For the model improvement plan, it is critical that our early adapters be knowledgeable about autism in order to help the model learn correct information.

Which is why we will require the help of specialists to train the model and help is improve what it can offer.

Since we are aiming to help children improve their skills on all sides.

We naturally aim to allow the model to send interactive exercises for children further down the line as part of the rehabilitation plan.

This of course means that our users, based on who they are, will split into 3 different main actors, those being parents, children, and professionals.









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The information center

One of our goals is to make Aitisma the first go-to place for information about Autism, where users can find accurate information and published research.

This content will help parents who want to read and understand more, as well as keep up with the up to date medical journals.

Eventually the expansions for the information center will strive to have parts with location based data, to help parents find the nearest specialized center if need be.









Community

It is no secret that parents will need to ask for help sometimes.

And for that, we want a community that is able to talk and contribute with each other.

For parents that means the ability to reach out to other parents or professionals to ask for help.

Maybe they need to purchase a certain item that is sold out, they will ask other parents if they know where they can find it and where they got it from, with the community aspect they will be able to reach out to discuss and help each other.

And for professionals, they will be able to discuss with other specialists and share their findings, as well as situations that they might need more insight on.

This of course opens the path to parents to be able to talk directly to professionals is there is a case that requires it, for instance if the bot asks them discuss a certain matter with a specialist.









Profissional data base

This will allow users to book appointments with the nearest medical facility, or to check what is available in their city.

This of course expands further, to allow them to reach out to more professionals, perhaps they would like to book sessions with someone out of their city or country.

Having that database will allow them to book video or text sessions through the app with a medical professional.

Which in turn will help us expand the business model to include commissions on sessions, or packages that include sessions with a professional with the subscriptions.









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Additional features

With the nature of this app

Sometimes medical and important info will be sent, this means we will allow users to have their own note section to save important messages or videos they receive from the chatbot or the specialists.

And with the need for the chatbot to save information about children, parents will be able to see the GARS scale rating for their child in details and see the exercises or the rehabilitation plan that is tailored for their child.









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Designs

Welcome to Aitisma

The helping hand that you need

ःः Examples

What can I do to help my child?

How can I make sure my child is comfortable in social situations

I want to know if my child needs to be seen by a specialist

Next

Welcome to

Aitisma

The helping hand that you need

4 Capabilities

Remembers what user said earlier in the conversation

Allows user to provide follow-up corrections

Trained to decline inappropriate requests

Next

Welcome to Aitisma

The helping hand that you need

______ Limitations

May occasionally generate incorrect information

May occasionally repeat questions

Limited knowledge of world and events after 2021

Let's start \rightarrow

