ListenBot — YOUR PERSONAL CHATBOT DOCTOR

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INTRODUCTION

We propose **Chinese Listening Chatbot**. It's a chatbot people can talk to. We want to help people solve their emotional problems. Dialogue sequence is based on **Full Catastrophe Living** [1] and **SFBT(Solution-focused therapy)**. Make users can focus on their body, mood and thinking process. We also include **pics and songs** in replying contents. Hopefully, we can find some relations between these contents and users response, applying these data to future emotional analysis.

Table 1: One turn Information

Categories	Information
action	mood_explore
emotion	快樂、喜悅
sentiment	positive
speech	我現在一整個超開心的！

Figure 1: Designed Dialogue Flow

L-BOT / **USER**

Opening Question

哈囉～我是聆聽對話機器人子虛 :) 今天的你過得怎麼樣呢～?

我今天專題展的時候發現之前很喜歡的學長居然也有出席，覺得有點小開心 ><

Emotion Status

噢噢! 聽起來真是開心欸～ 真希望我也能在場! (開心的 gif)

我也覺得很棒～～～! 今天真是一個美好的一天 :)

Body, Mood, Thinking Info

那想問問你那時候的身體感覺, 還有心情與想法是什麼樣的呢?

我其實挺緊張的, 而且手心直冒汗。 不過心情真的不錯, 想著自己真是幸運!

Focus on what Users want to achieve

那請你想像一下, 如果是你最好的朋友發生這樣的事情, 你會怎麼回應他呢?

先恭喜他～～然後叫他下次要鎮定XD 不然每次看到學長都愣著不敢動QQ

Ending Reply

謝謝你的分享! 我今天也覺得很開心哈哈哈～ 最後想送你一首歌, 希望你喜歡!

謝謝你! 感謝你與我分享這麼多你的想法, 我有個小禮物要送給你, 與你分享。 我想分享一首歌給你聽～

周杰倫 Jay Chou 【不愛我就拉倒 If You Don't Love Me, It's Fine...】 JVR Music 21M views

DIALOGUE DESIGN – MINDFULNESS

哈囉! 我是聆聽對話機器人子虛, 今天過得如何呢?

你知道心情跟想法有什麼差異嗎?

When users interact with our bot, first we organize user's thinking via the **Mindfulness's Concept** [2]: 'Awareness', 'Being in the moment', and 'Trust'.

1) Awareness
Observe mind activities when feeling bad. Pay attention to the negative thinking and the feeling when things happening without any judging.

2) Being in the moment
Accept and Admit what happening is already happened. Choose the reaction based on understanding yourself in the current moment.

3) Trust
Trust and believe you have the ability to observe yourself and keep your mind open and focus. Also, learn and understand things deeply from your own experience.

We use **'Awareness'** and **'Being in the moment'** in the questions asking for their body feeling, exploring their mood and the meaning of past and current thought. We expect users can not only aware of the event itself but also the **feeling of body and mind in that moment**. The response of user is shown as Table 2.

這件事真難過...

Table 2: User Response Collection in a conversation

Action	Speech
story_explore	今天得知喜歡的學長有女朋友了......整天都提不起勁來。
body_explore	心跳加快, 覺得呼吸很急促, 而且手會不自覺出力緊握
mood_explore	心情非常好, 有一點害羞但是一直少女心蕩漾, 覺得很開心。
thinking_explore	覺得自己浪費了三個月在這個人身上, 想著我為什麼要喜歡他, 真的是爛透了, 自己這麼容易暈船, 越講越想哭。又想著自己為什麼都沒有察覺到這一切......

There are two parts in **'Trust'**. First of all, in both positive and negative modules, users can be well aware of their abilities to observe, keep their mind open and focus. Secondly, in negative emotion module, users can do self-reflection from the past, learn and understand things throughout **'Wonderful world'**, **'Third personal perspective'** and **'Exceptions framework'**.

Table 3: Bot 3 Questions for Part "Trust"

Action	Speech
Wonderful World	那請你想像一下, 整個事件如果照你希望的方式發展, 最完美的方式, 那你覺得他會是什麼樣的?
Third Personal Perspective	那請你想像一下, 如果是你最好的朋友發生這樣的事情, 你會怎麼回應他呢?
Exceptions Framework	那你覺得這一切會有什麼不同? 可以從「身體感覺」、「心情」、「想法」或是「影響」這幾個面向去想。

DIALOGUE DESIGN – SFBT METHOD

The second part is also the design perspective of **SFBT.** After helping them be aware of their 'body reactions', 'moods', and 'thought' in the moment and also record themselves, we would help them with **SFBT's techniques to focus on the problem they faced.**

SFBT (Solution-focused therapy)
SFBT is a goal-directed collaborative approach to psychotherapeutic change that is conducted through direct observation of clients' responses to a series of precisely constructed questions. SFBT focuses on addressing what clients want to achieve without exploring the history and provenance of problems.

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Figure 2: ListenBot Facebook Messenger Dialogue Example

謝謝你! 感謝你與我分享這麼多你的想法, 我有個小禮物要送給你, 與你分享。我想分享一首歌給你聽～ https://www.youtube.com/watch?v=d8ekz_CSBVg

貼圖

唉! 看起來這件事讓你有些不好受呢...面對這個情況的當下, 你有什麼想法呢?

我想要回到過去, 不要讓自己進入現在這個狀態...

那請你想像一下, 如果是你最好的朋友發生這樣的事情, 你會怎麼回應他呢?

好好的痛哭一場吧, 跟朋友哭, 跟家人哭, 跟自己哭 眼淚乾了說不定會好一點

那你覺得這一切會有什麼不同? 可以從「身體感覺」、「心情」、「想法」或是「影響」這幾個面向去想。

身體不再顫抖 心情平靜一點了

謝謝你跟我一起走過這段探尋自我的過程, 我想問你最後一個問題, 經歷剛剛那些思考, 你現在的想法是什麼呢?

找時間哭一哭

↓ This song is "Guns N' Roses - Don't Cry"

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CONCLUSION & FUTURE WORKS

This work is the first version of **Chinese Listening Chatbot**, and our future work will focus on two aspects:
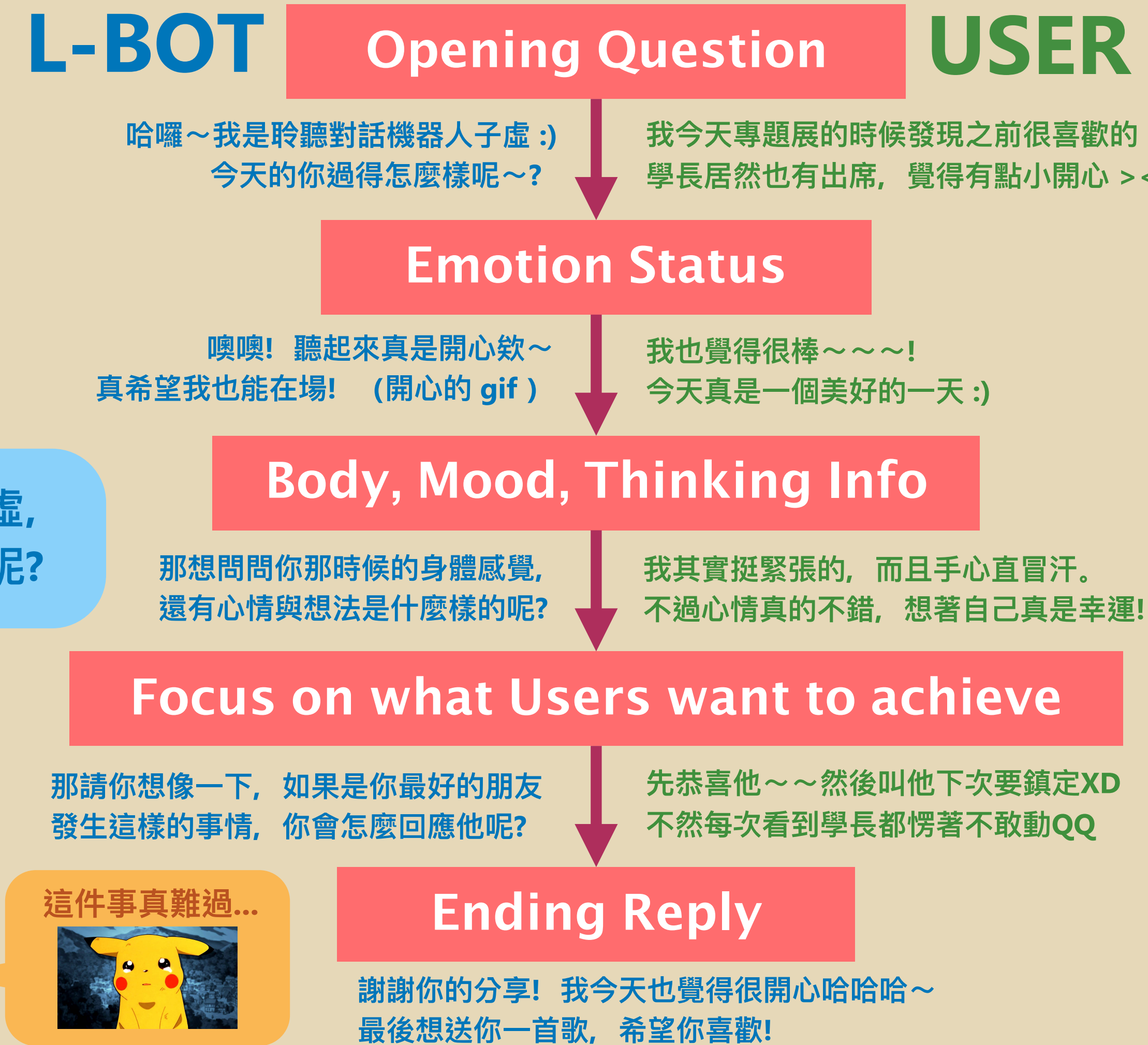
1) Dialogue Sequence
Including more diverse path in our dialogue sequence to record people's emotional events

2) Replied Contents
Applying machine learning technique into our replying system for giving suitable response and contents.

REFERENCE

- Full Catastrophe Living, Revised Edition: How to cope with stress, pain and illness using mindfulness meditation
- Get Out of Your Mind and Into Your Life: The New Acceptance and Commitment Therapy Book - by Steven C. Hayes
- Interviewing for solutions - by Peter De Jong、Insoo Kim Berg

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