EmpathicEngine Development Diary

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1 Backlog

Collaboration Type   Relationship between human and agent in human-computer collaboration [1].

whether set collaborative task in virtual reality can improve empathy?

Adjust physical and physiological state to colloboratively finish a task and feel oneself's state to infer other's state. This can be used for psycological trainning where a healthy people can help psychological disabled one to feel the normal inner state.

human adjust their physical or physiological signal to reach a level and computer will change volume or picture color

Observer and target.

Agent can manipulate (augment or depress) elements from the computer side to change focus to create new meaning of current job.

In MR based collaborative environment, we research empathy between or among follolwing objects:

1 human-human

2 human-Agent

3 agent-human

4 agent-Agent

5 human-agent-human

6 agent-human-human

7 agent-human group

8 human-agent group

9 huamn group-agent group

2 PhD Research Plan

2.1 Summary

Construct an engine to support most mixed reality (MR) related scientific research.

Agent in MR environment help enhance understand and feeling of social presence.

MR content 3D model will be placed on the web server.

Interaction Interaction depends intensively on terminal devices

Display Display is also constrained by terminal devices.

AI Integrate artificial intelligence to construct Agent that can sense, express and regulate emotion

Datasource Data comprises physical and physiological signals.

1) physical signals includes images, voices and so on.

2) Physiological signals comprises Electroencephlogram(EEG), Electrocardiogram (ECG), etc..

3 DevDiary

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1) Finish mingw download and configuration

2) Download mysql and configure it with the program

3)

References

[1] Frederique De Vignemont and Tania Singer. The empathic brain: how, when and why? *Trends in cognitive sciences*, 10(10):435–441, 2006.