11-05-2022

User's Experience Evaluation

T_i

M1 M2 M3

Testing a product

Q: M_i ? Which one is the best design

A: UI Experience $\equiv$?

Application ? To judge a product

→ with user's ~~direct~~ ~~working~~ studies

→ Expert's feedback (Expert's experience + Formal model)

→ Automatic evaluation using BCI (- EEG)

User's performance evaluation

T_i

Application ? Human recruitment

Testing a user

M_x

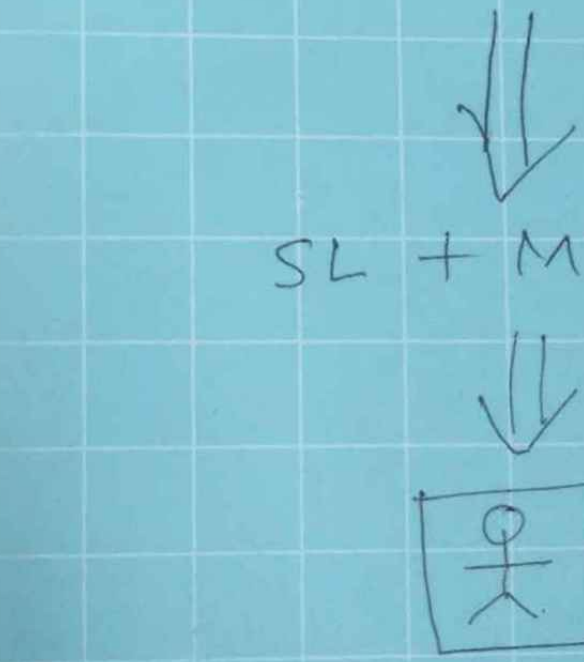
U_1 ... U_2 ..... U_N

Q: U_i ? Which user(s) perform the best

16-06-2022

How metrics help to measure user ?

	M1	M2	M3	...	Mn
U_1	m_{11}	m_{12}	m_{13}	...	$m_{1n} = X_1$
U_2	m_{21}	m_{22}	m_{23}		$m_{2n} = X_2$
.					
.					
U_m	m_{m1}	m_{m2}	m_{m3}	...	$m_{mn} = X_n$



24.06.2022

9 Metrics have been identified.

The approach will be multi-modal (4)

↳ To find how to evaluate a user.

↓

In what situation ⇒ how to do it

How to create the appropriate environment so that user can be indulged into it.

→ Design an experiment

Attention: Abhishek

(a) Formal / Informal definition

(b) Existing approaches to measure different performance factors
- The idea
- Pros and cons of the ideas

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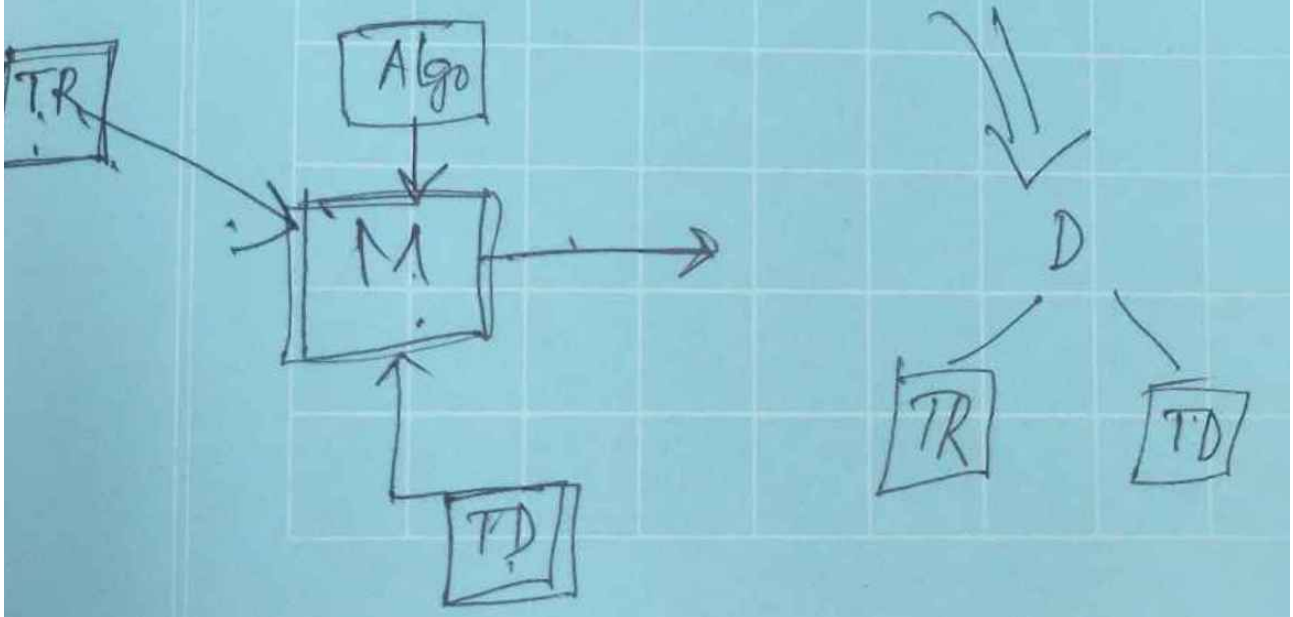
1. Attention ⟹ M1
2. Workload ⟹ M2
3. Vigilance level ⟹ M3
4. Fatigue ⟹ M4
5. GRP ⟹ M5

Task:

Decide an experiment to evoke all the above characteristi



Multi-Attribute Task Battery ≡ NASA

20.07.2022

Work with modelling of

⇒ Work load / Cognitive load estimation

Consult : Tutan, Subratu & Subhrasankar

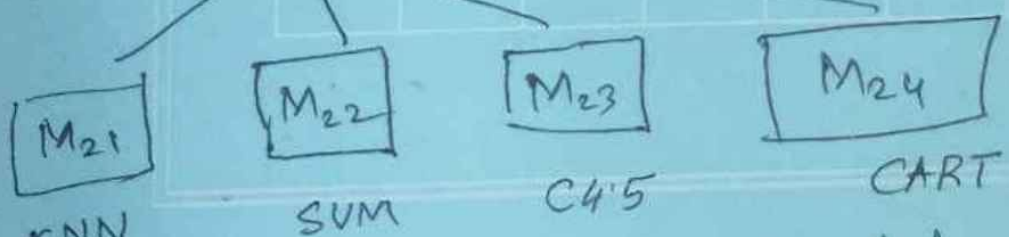
Ask for

a) Training dataset

b) Implementation of different classification algorithms

- Machine Learning Algos
  SVM, kNN, DT, ...
- Deep Learning Algo.
  LSTM / 2DCNN ....
- Sparsity based Algo...

M_2 ⟸ Model for work load classification



Choose the best model.