

CHAPTER 7 –Affective-Behavioral-Cognitive (ABC) Learner Modeling

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Overview

- Title

Affective-Behavioral-Cognitive(ABC) Learner Modeling

- Author information (brief Bio)

Tomar & Nielsen

- Presenter Information

Zhang xuechen, professor Hu's first year PhD student(CCNU)

Overview

- Section 1
 - What has been done by the author(s)?
- Section 2
 - What is the theoretical foundation of the chapter?
- Section 3
 - A brief introduction of ABC model.
- Section 4
 - What's the relationship among these modules?
- Section 5
 - What would you do to improve the article if you write it today?

Section 1- 1

- What has been done by the author(s)?

Developed a joint model for predicting e-learners' emotions, behaviors and cognitive states to optimize learning based on their individual characteristics, requirements and preferences.

Section 1- 2

- What has been done by the author(s)?
- Describing ABC user model and cognitive theory of affect and behavior
- Overview of the knowledge and information about learner
- Events and learner models
- Appraisal mechanism
- Recommendations for GIFT

Section 2- 1

- What is the theoretical foundation of the chapter?

1.Cognitive theory of emotions(OCC Theory)

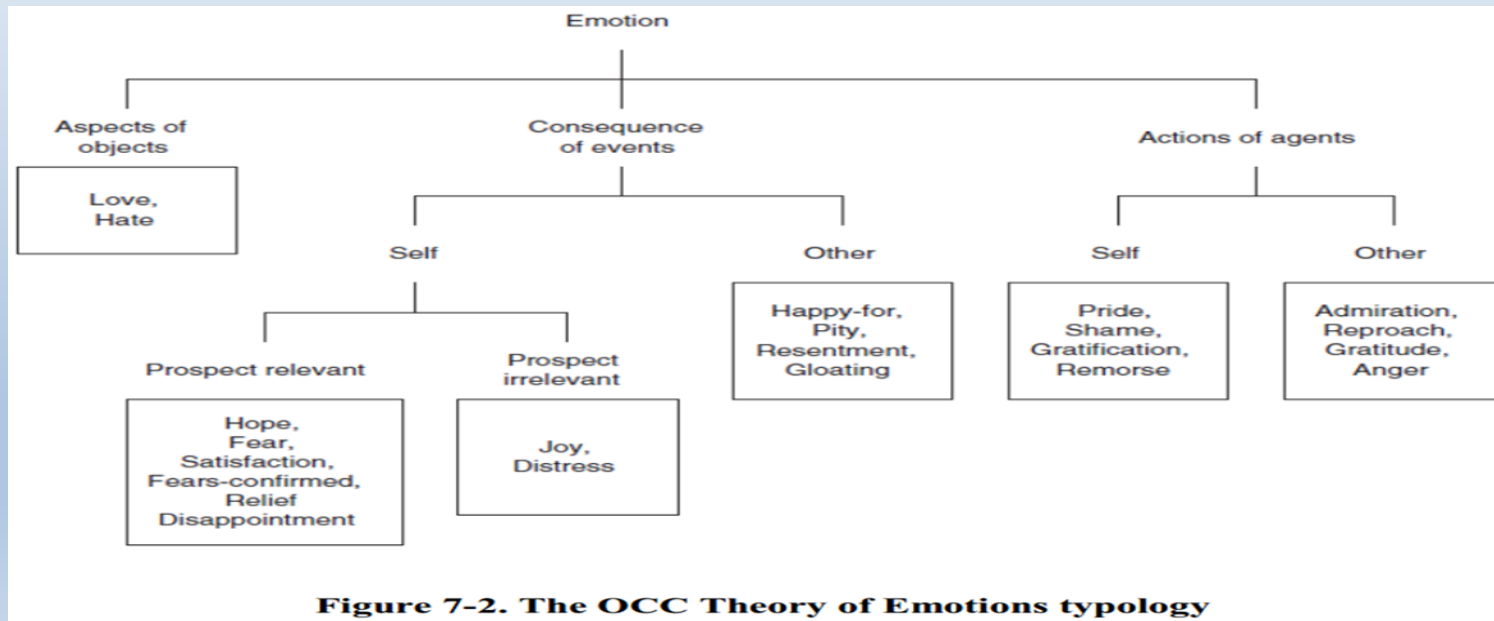


Figure 7-2. The OCC Theory of Emotions typology

Section 2- 2

- What is the theoretical foundation of the chapter?

2. Five-Factor Model of personality

Openness

Conscientiousness

Extraversion

Agreeableness

Neuroticism

Section 3-1

- A brief introduction of ABC model

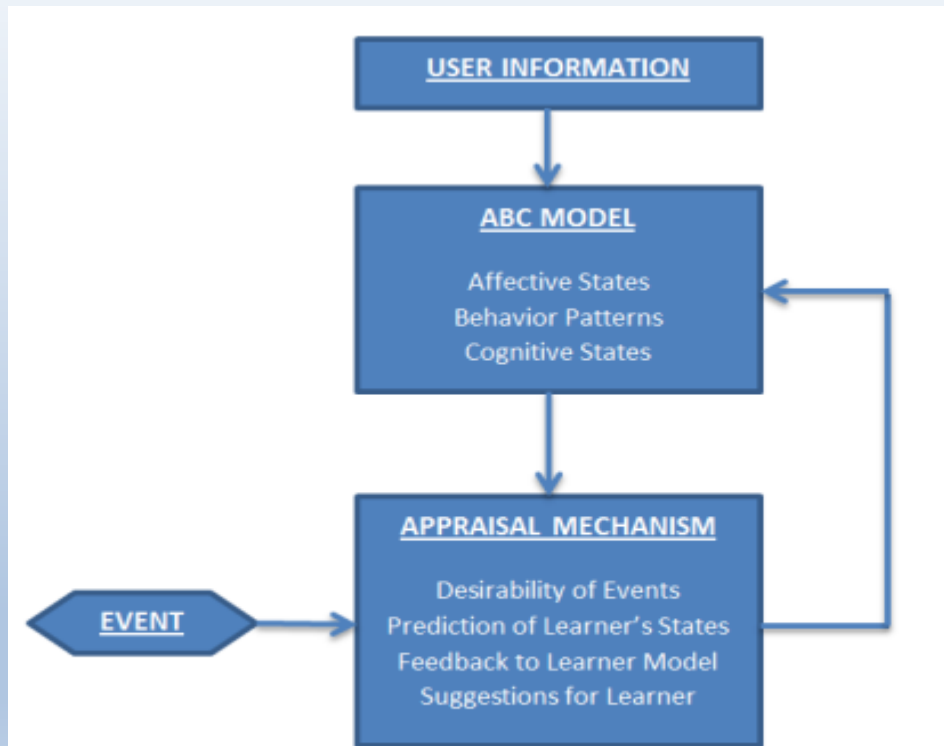


Figure 7-1. The ABC Model

Section 3-2

- A brief introduction of ABC model

1. User information

Categories:

characteristics, capabilities, preferences, domain knowledge, goals.

Methods of gathering them:

survey forms, learner's academic records, sensors, pretest and questionnaires

Section 3-3

- A brief introduction of ABC model

2. ABC model

Affective states

Behavior patterns

Cognitive states



how a learner behaves

Section 3-4

- A brief introduction of ABC model

3. Events

Activity that can affect the realization of learner's goals.

Categories:

Based on origin: Learner-generated events & System-generated events

Based on effect: Desirable events & Undesirable events

Section 3-5

- A brief introduction of ABC model

4. Appraisal mechanism

affective and cognitive states:

The appraisal structure makes use of inductive and abductive reasoning over people's perceptions of the world.

behaviors:

Based on the record of the past changes in affective and cognitive states of learner.

Section 4-1

- What's the relationship among these modules

User information \longrightarrow basis

Section 4-2

- What's the relationship among these modules

ABC model



core content

Section 4-3

- What's the relationship among these modules

events



necessary content

Section 4-4

- What's the relationship among these modules

appraisal mechanism \longrightarrow make the model work

Section 5-1

- What would you do to improve the article if you write it today?

Make some further explanations of the theoretical foundation.

Section 5-2

- What would you do to improve the article if you write it today?

Add a description of the relationship of the four modules of ABC model in one place.

Section 5-3

- What would you do to improve the article if you write it today?

Add Self-determination Theory to the module of relation between events and learner model.

Section 5-4

- What would you do to improve the article if you write it today?

Add some empirical evidences.