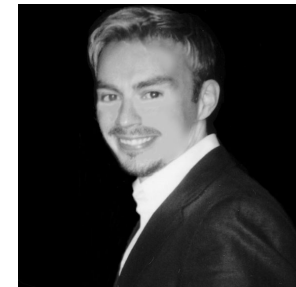
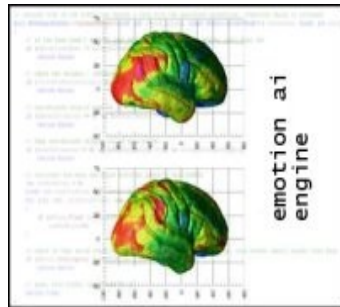


Ian Wilson

Ars Electronica Pixel Spaces



Emotion AI

info@emotion.ai

<http://www.emotion.ai>

The paradox of
emotion

2005.09.04

Emotion is simpler than you think

Emotion is more complex than you can imagine

Small number of systems

Many parameters

Huge number of possible “states” or interactions (neural modulation)

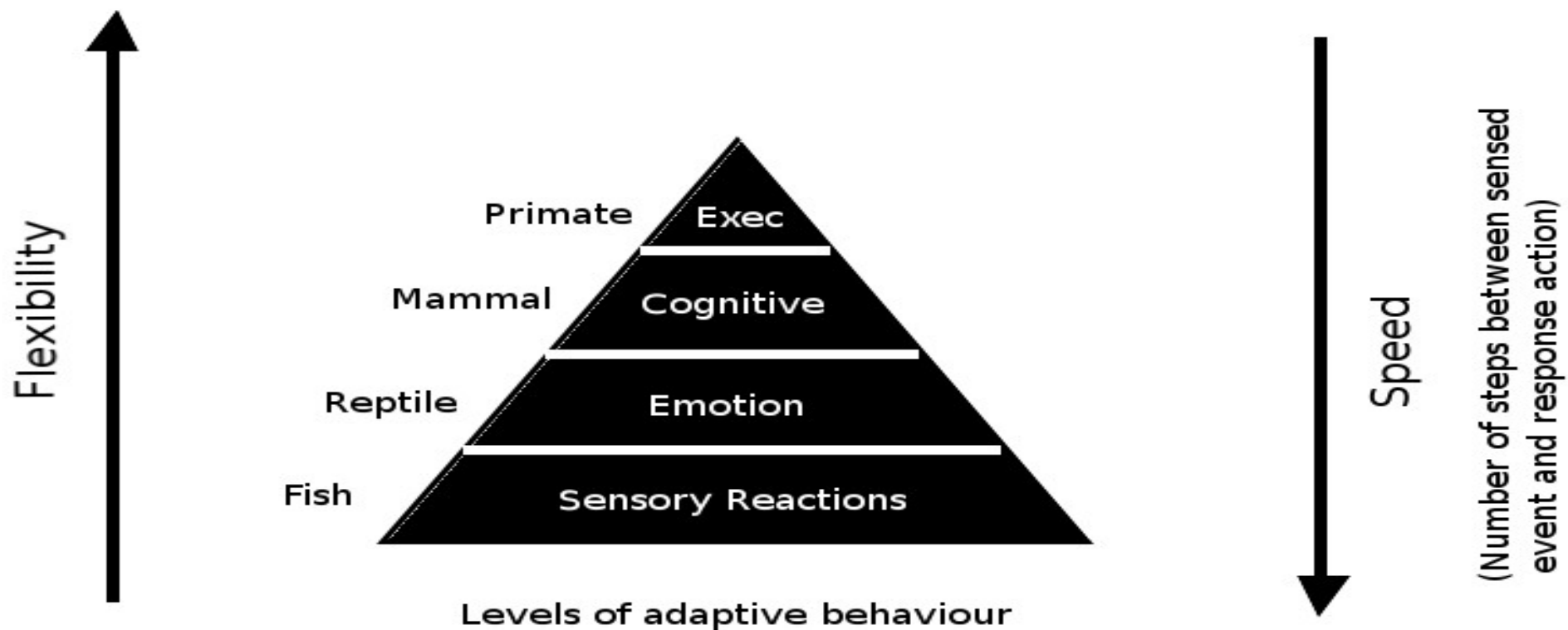
“6 universal emotions” is not a valid concept

Confusing semantics with science (i.e. “happy”)

Emotion is a vital integral part of a larger adaptive behavioural system

emotion ai

emotion simulation technology



Emotion Systems - Evaluate Events, Prioritize Events, Filter Events
- Respond quickly and inform higher levels

Emotion AI Engine is an algorithmic simulation of primate emotion, personality, with age and gender partial simulations

Takes simple event inputs and generates facial gestures, body gestures and actions (consistent with the given personality)

Complex

Real time

Continuous

Dynamic

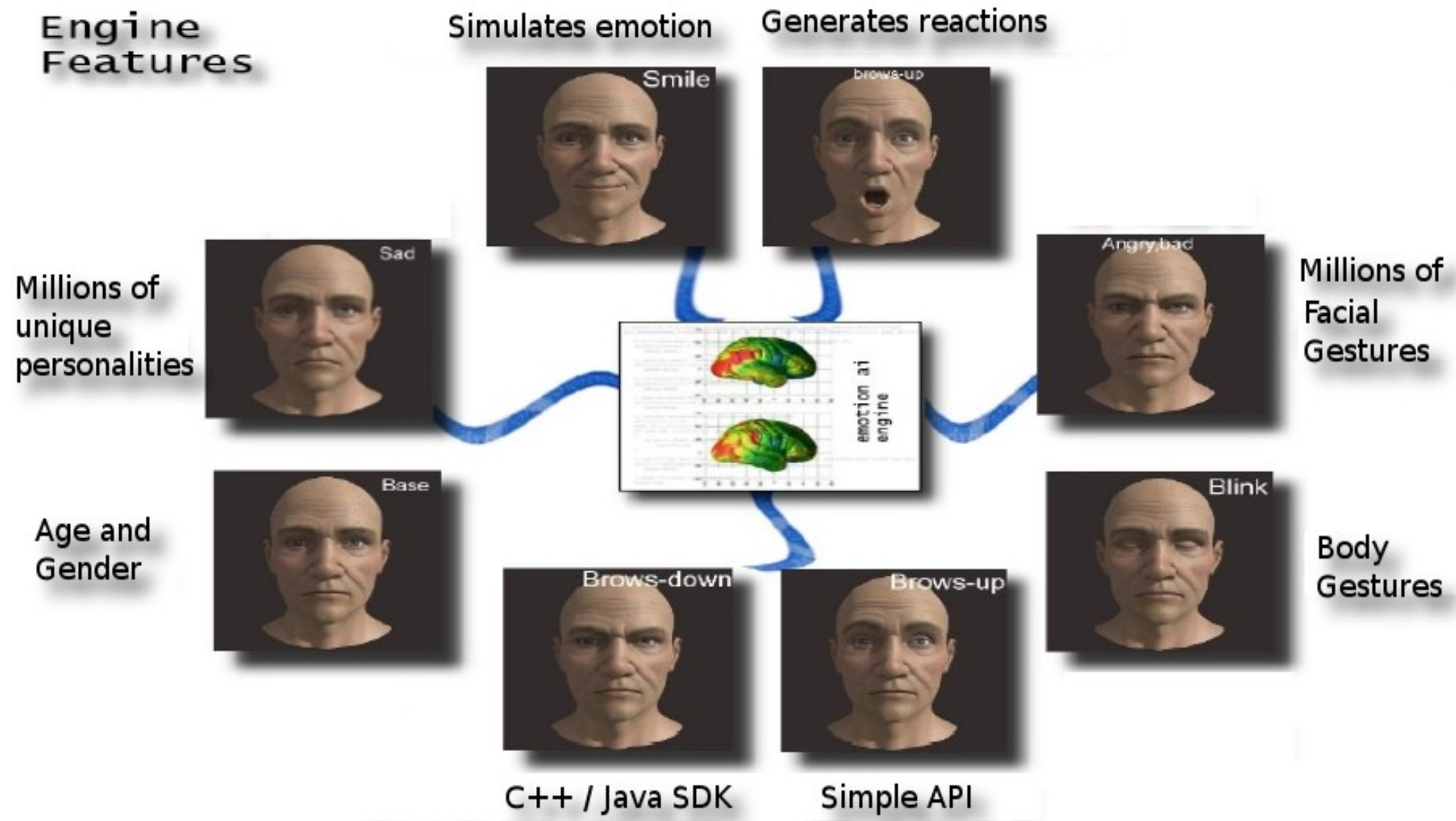
Emergent

Self referential

Parallel (simulated)

Does not yet learn or store memories, only low level behaviours

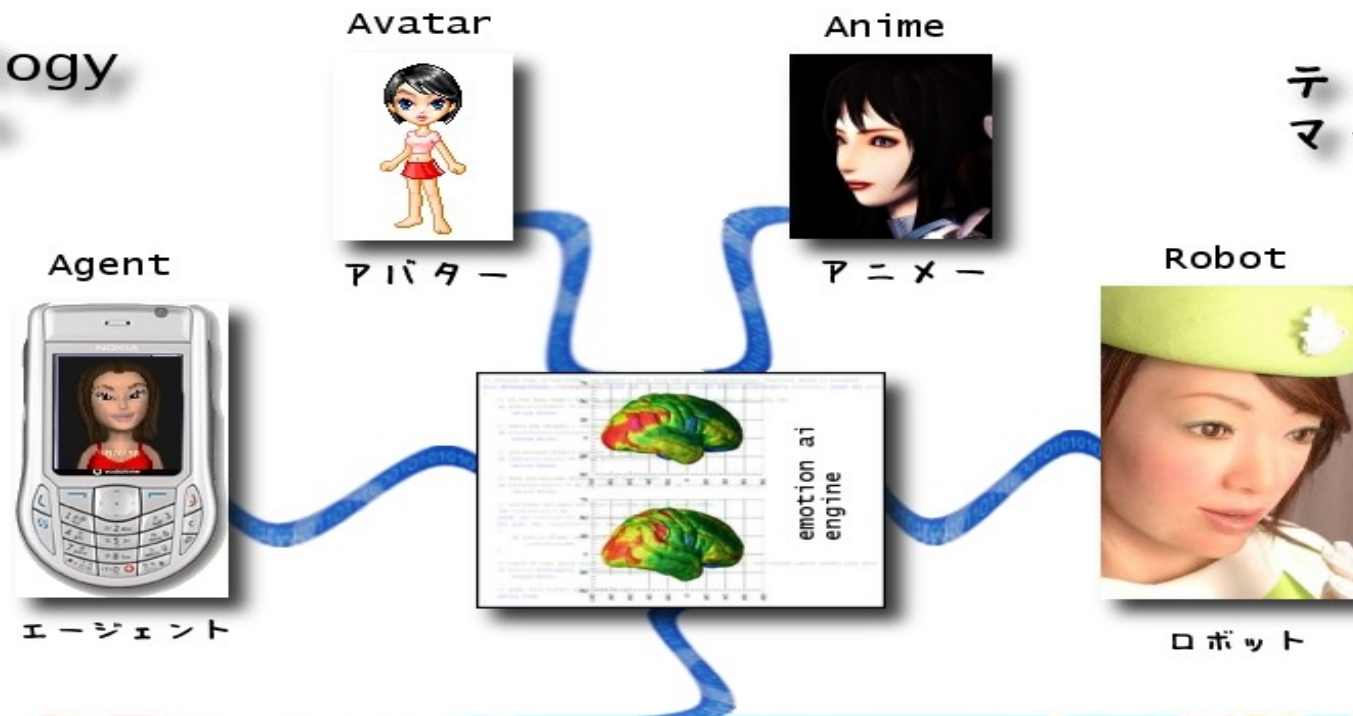
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Technology
Markets

テクノロジー
マーケット



Game ゲーム

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Application development plan

Game toolkit plug in



Animation toolkit plug in

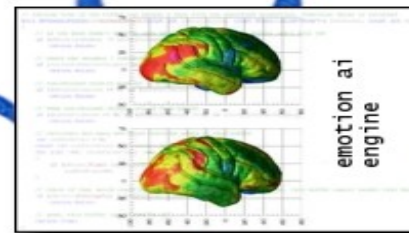


アプリケーション開発プラン

Contents toolkit plug in



C++ / Java SDK



Web Applet



Robot control



Embedded



Mobile midlet

What is the key to Emotion Simulation?

INTERACTION

A simulation needs to be able to respond to and adapt to the user – autonomously

How to respond?

Need to understand emotion

What is the key to Engagement and Believability?

CONSISTANT BEHAVIOR

A Simulation character needs to behave in a manner consistent with its personality

How to behave?

Need to understand personality

What is the event input to the system?

SIMPLE

At the most basic level –
positive and negative values
(reward and penalty)

Also lower level events –
Efficiency, Security, Growth

How are those events processed by the system?

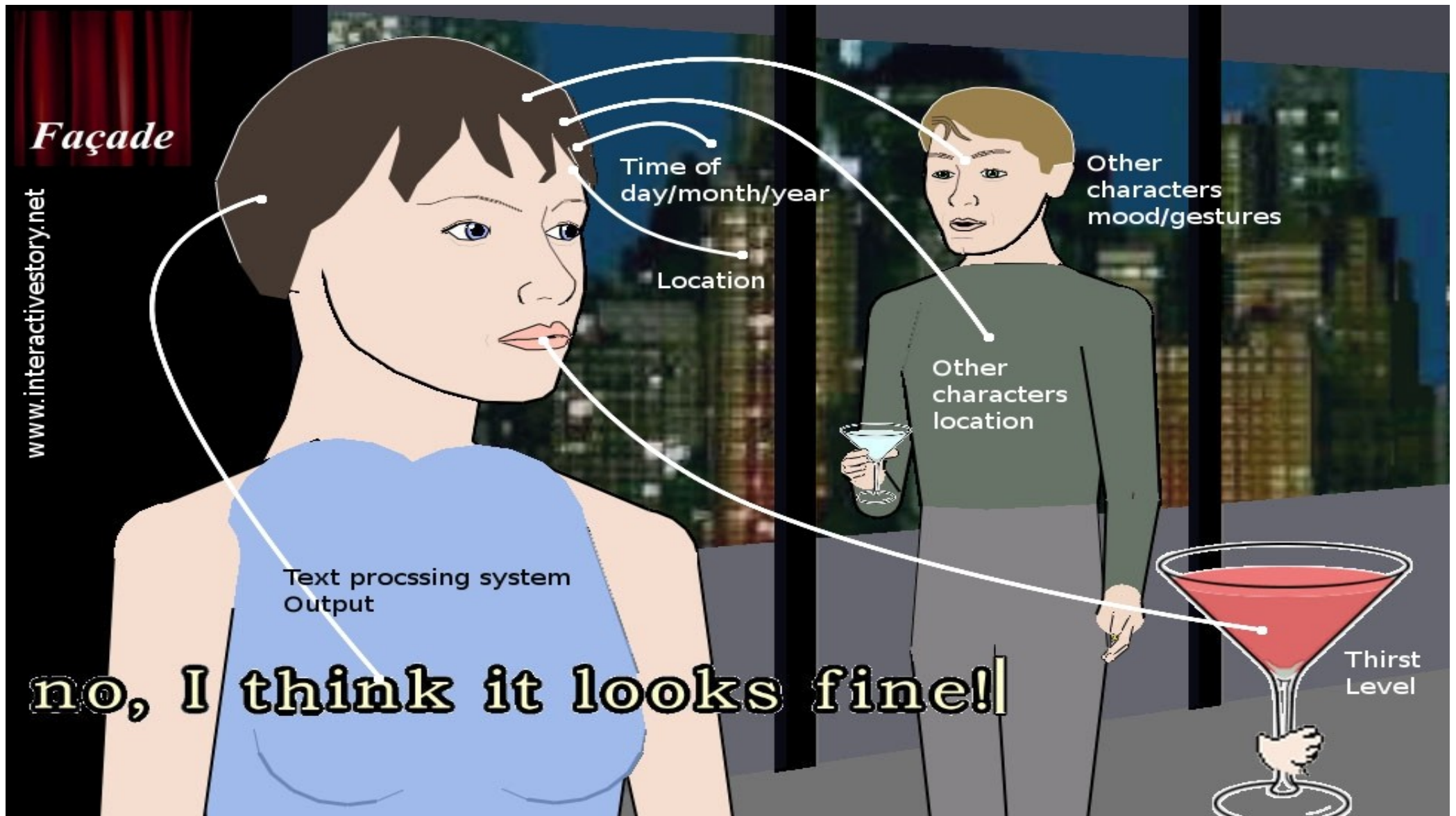
COMPLEX

Absolute value, relative value
(change), previously received
values (habituation/novelty),
expected values (difference
from expected), personality
bias (+/-), excitation and
inhibition of other systems

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Java/Brew Mobile
graphics technology
partner: Mobile Mascots

C++ PC graphics
technology partner:
Visage Technologies



visage technologies THE FACE ANIMATION COMPANY

emotion ai

emotion simulation technology

If you have questions
please dont hesitate
to ask (after you see
the demos) or after
the seminar

We are interested in
talking about projects

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