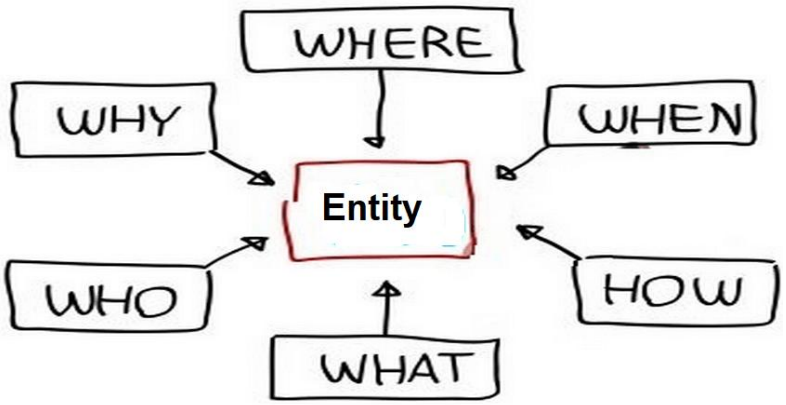
Context Aware Computing for Contextual Artificial Intelligence

Context Aware Computing

- **Context :** *Information that can be used to characterize the **situation** of an entity*.



- The **Goal of Context Aware Computing** is to acquire and utlize context from a device in order to provide services that are appropriate for a given context

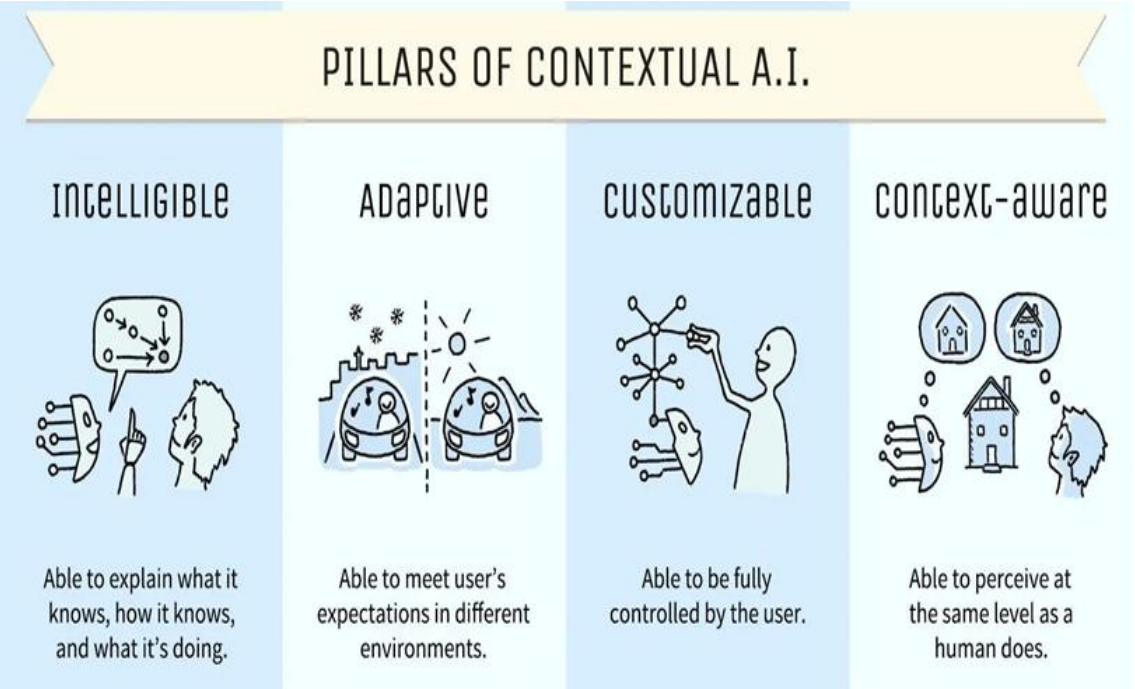
Categories Of context : *Computing Context, Network Context, User Context, Physical Context, Time Context, Sensor Context, Device Context, etc …*

Properties of Context : Context information may be static or dynamic, Context information creates History, Quantity of Context information is large, Multidimensional / Heterogeneous, Distributed , etc…

Issues in Context Aware Computing :
Capturing, Recognizing, Modeling , Conflict Resolution, etc..

Contextual Artificial Intelligence

- Human-centric view and approach to **AI**.
- The ability to adapt and apply what has been learned, such as skills and knowledge, in different **scenarios/situations..**

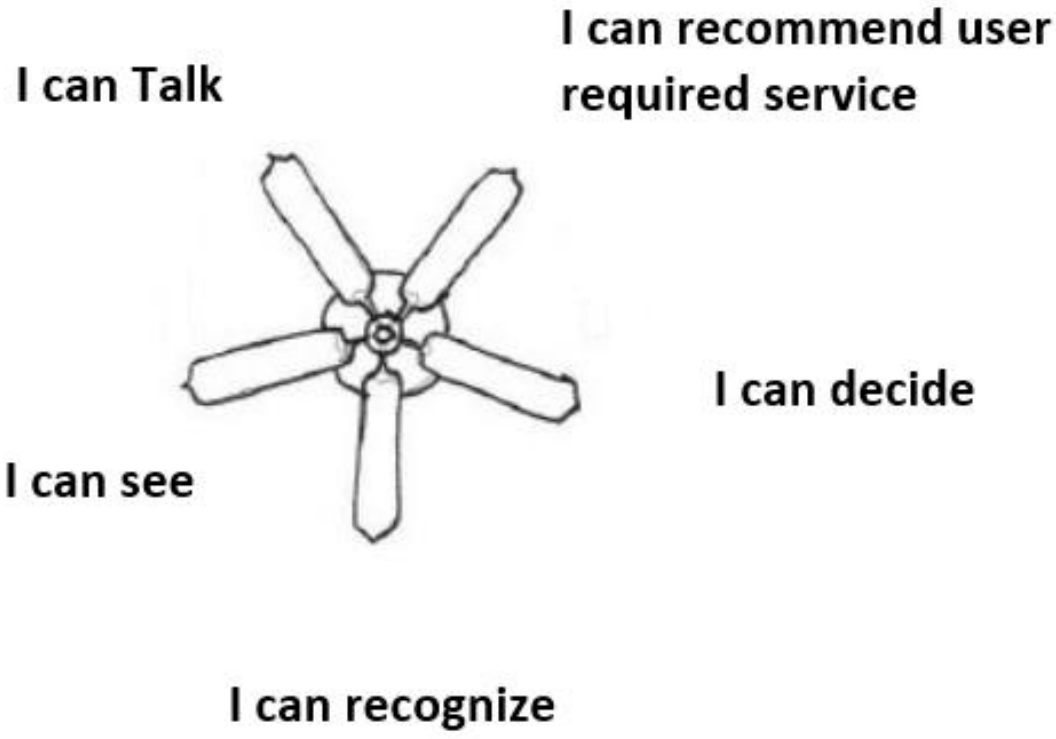


Source : https://business.adobe.com/blog/perspectives/contextual-ai-the-next-frontier-of-artificial-intelligence

3 Waves of AI :

1. **Describe (Hand Crafted Knowledge)**
2. **Categorize (Statistical Knowledge)**
3. **Explain (Contextual Adaptation)**

Context Aware Fan



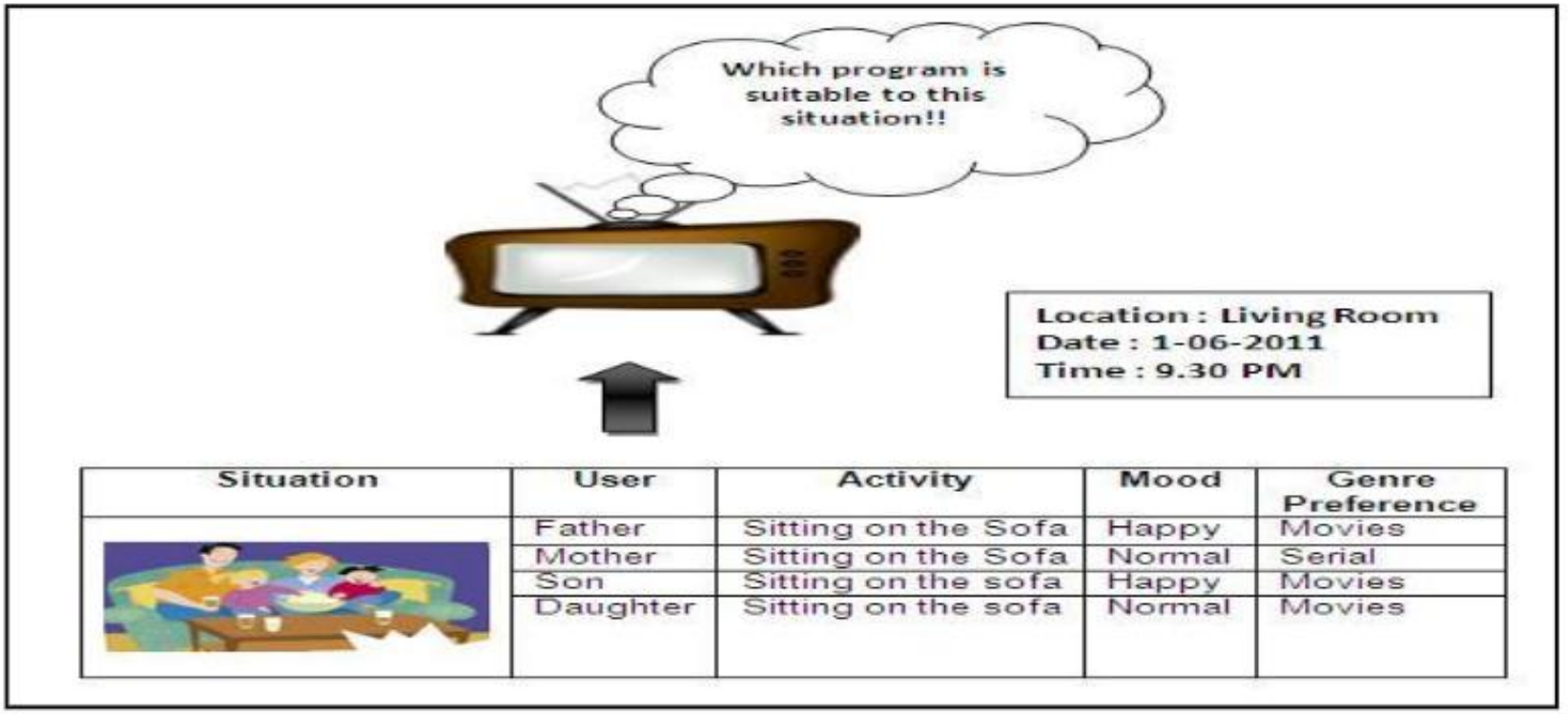
Context Aware Mobile

AI Abilities : Talk , Listen , Recognize user context, Decide , Recommend, Understanding User Satisfaction , Notification, Answering Call , ..

Scenario1

Mobile phone should recognize its location and behave accordingly. For example , suppose if student carries mobile into classroom , mobile must be aware about the class and policies and should go into classroom mode. When mobile is in classroom mode , it must behave as a learning gadget…….

Context Aware TV



Situation	User	Activity	Mood	Genre Preference
	Father	Sitting on the Sofa	Happy	Movies
	Mother	Sitting on the Sofa	Normal	Serial
	Son	Sitting on the sofa	Happy	Movies
	Daughter	Sitting on the sofa	Normal	Movies

Fig1: Family watching television