International Journal of Engineering Applied Sciences and Technology, 2017
Vol. 2, Issue 4, ISSN No. 2455-2143, Pages 195-197
Published Online February-March 2017 in IJEAST (http://www.ijeast.com)

A REVIEW ON COGNITIVE COMPUTING

Md Sadam Hussain
Department of Computer Science
G.V.I.E.T
Banur, Punjab-Indian

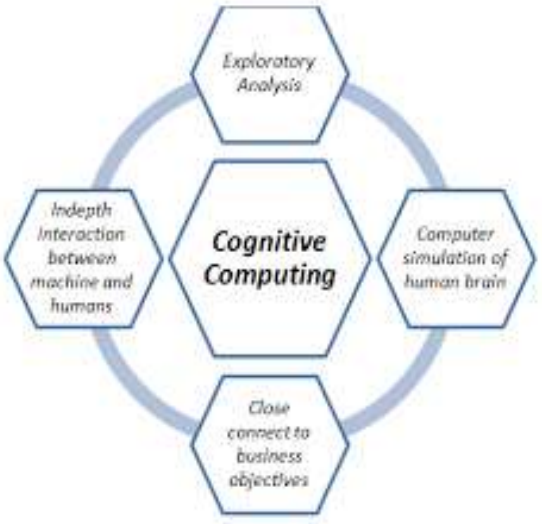
Neha Chandel
Department of Computer Science
G.V.I.E.T
Banur, Punjab- India

Abstract— Inspired by the latest development in cognitive informatics and contemporary denotational mathematics. Cognitive computing is an emerging paradigm of intelligent computing methodologies and systems, which implements computational intelligence by autonomous inferences and preceptions mimicking the mechanism of the brain. In this article I'm going to present the survey of cognitive computing. The term cognitive computing has been used to refer to new hardware and software that mimics the functioning of the human brain and helps to improve human decision –making. In this sense , Cognitive computing is a new type of computing with the goal of more accurate models of how the human brain senses, reasons and responds to stimulus .We are aware about the services enabled by cognitive computing such as, Apple siri , IBM Watson, Microsoft Cortana , Google Go , and Amazon Echo. Cognitive computing having very wide scope in the field of medical science. We are in IT era and cognitive computing is the latest trend in the sector . With the evolution of cognitive computing our task will become more easy and we will have a strong bonding between our employees and Manager.

Key words: mimicking, denotational,watson siri

I. INTRODUCTION

Artificial intelligence has been a far-flung goal of computing since the conception of the computer, but we may be getting closer than ever with new cognitive computing models. Cognitive computing comes from a mashup of cognitive science — the study of the human brain and how it functions — and computer science, and the results will have far-reaching impacts on our private lives, healthcare, business, and more.

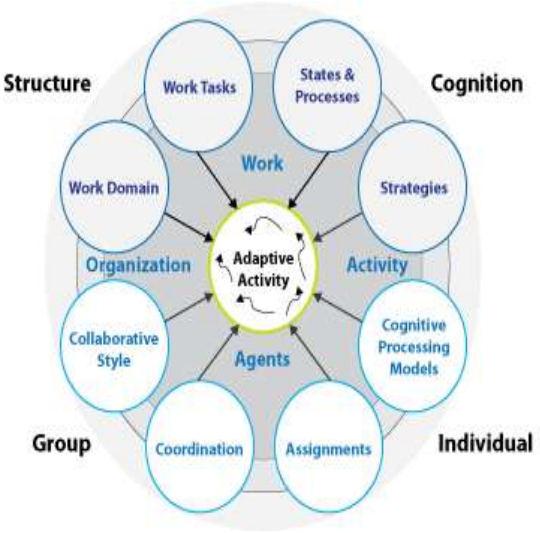


II. COGNITIVE COMPUTING CYCLE

The aim of cognitive computing is to simulate the human thoughts in computerized model. We can design a model in such a way that it can mimics the functioning of human brain and improve the decision making process. The major advantage of the cognitive computing is to understand the way human thought . As we know computer process a query more faster and accurate way than the human brain. Cognitive computing link data analysis and adaptive page displays to adjust content for a particular type of audience. As such, CC hardware and applications strive to be more affective and more influential by design.

The major features of the cognitive computing:

International Journal of Engineering Applied Sciences and Technology, 2017
Vol. 2, Issue 4, ISSN No. 2455-2143, Pages 195-197
Published Online February-March 2017 in IJEAST (http://www.ijeast.com)



- **Contextual :** They can understand the problems, identify and extract contextual elements like meanings, syntax, time locations, appropriate domain, user profile and goal. We can design them in such a way that they can give more than one solutions of a given problem. It can also identify the images and the gesture to provide the solution.
- **Interactive :** The model we design should interact actively with the user to meet their needs comfortably. They interact with other processor ,devices to provide the informations.
- **Iterative and stateful :** We can interact with them and they may remember the previous conversation and provide the correct and suitable details.
- **Adaptive :** They may learn to may changes in information, goals and requirements. We can design to fed the data in dynamic data in real time.

III. COGNITIVE COMPUTING POWERING DIGITAL EVOLUTION

Cognitive computing comes under the umbrella of Artificial Intelligence but still they are very different from each other in approaches and goals. Cognitive computing leads to the evolution of the digital profession, with the evolution of digital world it reduces the human efforts and can be applied in various fields for further improvement. We can design a robot in such a way that it can understand and help in teaching process in schools and colleges, it can be more beneficial in the field of Aerospace and Aeronautical engineering. It can help to design a better and efficient space craft. It can be deployed in other fields also. Understanding every forms of data, including the flow of social information, is a priority for every business in the age of the digital-perceptive consumer. Considering the importance of data insights, leading organizations are implementing and standardizing organization-wide analytics capabilities and acquiring skills for data scientists.

A key differentiator for organizations using refined analytics is the adoption of cognitive capabilities -- the use of adaptive, self-learning systems to garner intelligent recommendations to make better decisions. Using advanced real-time prescriptive and predictive capabilities is a competitive advantage for many companies which is building apps that help people train and maintain fitness by learning how they work out, and connecting to data and services from other sources .Cognitive can also have an impact on virtually any data-rich industry from healthcare to education. A lovable cognitive robot, is already showing how affective capabilities can be valuable not just to listen and talk, but to understand the emotional element in human conversation and respond with context sensitivity. This can be applied directly in areas such as customer service or health services.

IV. CHALLENGE IN COGNITIVE COMPUTING

As we know that everything has to sides likewise cognitive computing is also having some kind of challenges which need to be improved for better human world.

- Cognitive Robots can be programmed for causing damage to the society.
- It makes human very lazy.
- It will give rise to the machine era.
- It will become a major issue for the society.
- It will lead to a huge amount of E-Waste.

V. CONCLUSION

The use of Cognitive Computing is growing rapidly in different sectors at very high speed. This will be beneficial for some sectors if we utilize the functioning carefully but if we can't then it will become a big problem for our society. The use of CC can be used in Medical Science that will help in identifying various kind of diseases and help in major operations. This is a good use of cognitive computing.

VI. REFERENCE

1. KMWORLD Magazine Sept 1, 2015 by Judith Lamont
2. https://en.wikipedia.org/wiki/Cognitive_computing
3. www.forbes.com/sites/bernardmarr/2016/03/23/what-everyone-should-know-about-cognitive-computing/#f70ab005d6e7
4. http://www.research.ibm.com/cognitive-computing/watson/#fbid=pAOaw9gJRg3
5. https://www.google.co.in/search?q=cognitive+computing&client=firefox-b&source=lnms&tbm=isch&sa=X&ved=0ahUKEw

jxksuvxaHSAhWJtY8KHRJTCfkQ_AUICSgC&biw=1366&bih=657#imgrc=5Gjo4vHv91YLMM:

6. http://www.ppi-int.com/training/csediagram.html
7. http://as.wiley.com/WileyCDA/WileyTitle/productCd-1118896629,subjectCd-CSB0.html
8. https://books.google.co.in/books?hl=en&lr=&id=U9arAgAAQBAJ&oi=fnd&pg=PA301&dq=books+on+cognitive+computing&ots=LGzJ8Wboke&sig=0MUmbBqf5y2pIZlSJ_kCHGpVoOE#v=onepage&q=books%20on%20cognitive%20computing&f=false
9. http://www.igi-global.com/article/inference-algebra-denotational-mathematics-cognitive/67793
10. http://www.amazon.in/Cognitive-Computing-Big-Data-Analytics/dp/1118896629