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# Improving the IQ Level of Intelligent Systems by using Data Analytics and Patterns

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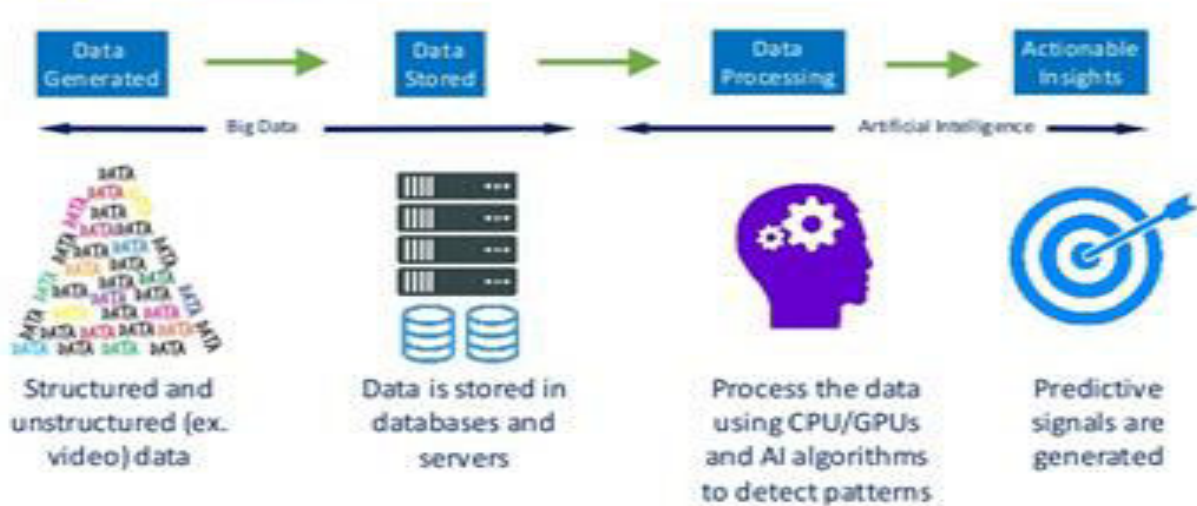
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**ABSTRACT:** Data it is a catchy word in 21st century. The cost of the data is growing day by day. As we are living in a data world there is huge demand for Data. People are generating huge amount of data in different ways starting from social media, Internet and sensors etc., How to use this data and manipulate this data to make it useful. Here is the place where Data Analytics came into picture to consider the entire data which is collected and process it according to the need and make use of it for the further applications. This process happening effectively for almost 5 years and it is going to continuous further. In this paper the discussion is on one more vertical of data analytics for accurate decision making called IQ Analytics. The proposed method in this paper talks about how to implement this IQ analytics by using existing data and accurate algorithms. The IQ analytics is not only data dependent, they are also depends on the gestures of the person who is going to use this system. For which the system is going to implement the concept called the concept of psychometric test along with the data analytics to analyse the IQ of the person who is going to use this system. In order to implement this System we are going to use algorithms like KNN and SVM etc.,

## I. INTRODUCTION

At present the analytics on data are used to implement the applications of different real time applications. In this paper we are going to talk about the system which is very much essential for developing countries like India.

### The Process



How to use this data and manipulate this data to make it useful. Here is the place where Data Analytics came into picture to consider the entire data which is collected and process it according to the need and make use of it for the further applications. This process happening effectively for almost 5 years and it is going to continuous further. In this paper the discussion is on one more vertical of data analytics for accurate decision making called IQ Analytics. The proposed method in this paper talks about how to implement this IQ analytics by using existing data and accurate algorithms. The IQ analytics is not only data dependent, they are also depends on the gestures of the person who is going to use this system.

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data analytics to analyze the IQ of the person who is going to use this system. In order to implement this System we are going to use algorithms like KNN and SVM etc.

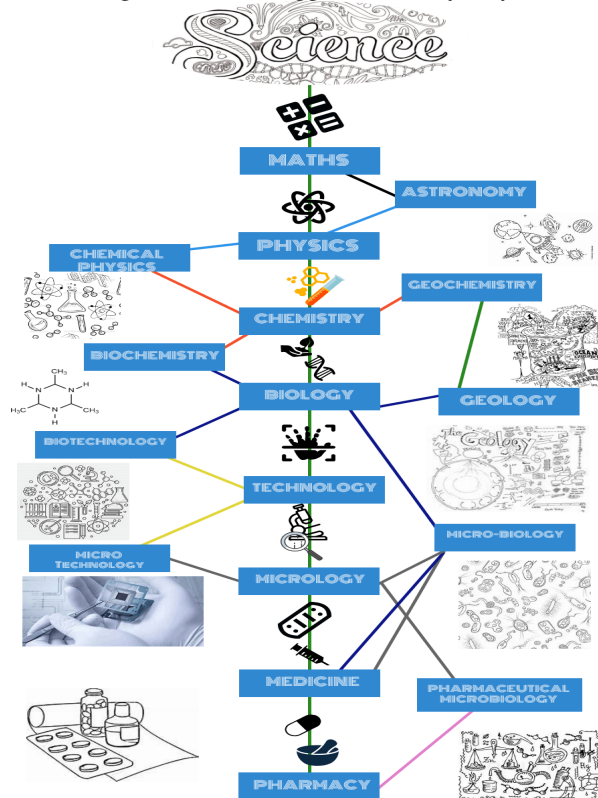
This system is very much useful for education industry. The basic idea of this system is to make sure that the decision with respect to students about their further career will be given as an advice using this system.

Consider an example in Developing countries like India, due to lack of awareness students who want to join any new courses or college either after 10<sup>th</sup> Standard or 12<sup>th</sup> Standard they will get attracted to courses which are taken by their friends and suggested by seniors. But the major problem happening is after couple of years they will realize that the decision what they made wrong and they are not really capable of absorbing the knowledge with respect to that particular course.[1]

Consider couple of scenarios, to get better understanding.

**Scenario-1**

The students who completed his +2 exams they need to choose the best option amongst multiple options they have. To give an example they go for Engineering, Doctor or Accounts etc., But the problem is they are not much aware of which option is suitable for them. Immediately they approach the different people in the same field. Each and every friend or the person in the same field will give different suggestion finally they will end up in much more confusion [7].

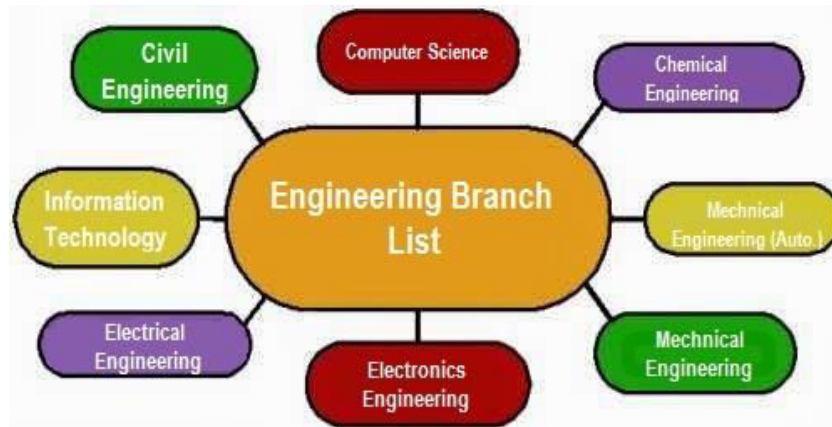


**Scenario-2:**

If the student is decided to go with Engineering, now the problem starts again in engineering there are so many branches of specializations, which one to choose?[7]

**Scenario 3:**

If students decided to go with engineering and in engineering, if he/she decided to go with Mechanical Engineering due to some reason they don't know what are the different subjects they are going to study under this stream.



**Scenario 4:**

If they somehow come to know about different subjects they are going to study in mechanical engineering, the next question rises is what are the career options after completing the course for 4 years.

**Scenario 5:**

Supposed after completing the course the students will have options like to go for job or higher studies. Now the problem starts again whether to go for Higher Studies or Job.

**Scenario 6:**

If they decide to go for Higher Studies, again the problem what would be the best domain and which country is good based on the technology and cost?

**Scenario 7:**

if they decided to for Job what kind of job they need to opt based on the skill set they have. Instead they are just going to test their skills in all domains.

Based on the above scenarios as shown in Fig.1 it is clear that there should be one such system which should give accurate suggestions based on need to make an optimal decision.

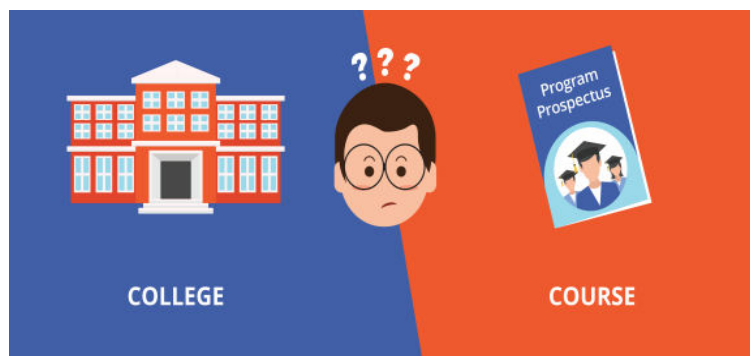


Figure 1: Student Confused about Course and College

**II. LITERATURE SURVEY / PRELIMINARY RESEARCH**

The research has been done to study much about such a system which will make decision behalf of us and gives accurate output for our needs. There is no such system works as mentioned. We could only able to extract the knowledge of data analytics and different algorithms used in Data Analytics. The information will be collected using surveys and personal interviews. The data collection activity will be done in both vertically and horizontally [3] means as much as in-depth accurate data we can collect that will be collected from different people.

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A case is made for their expanded use in learning investigation to upgrade the exhibition of existing understudy models. It is noticed that absence of freedom, straight additivity, and steady fluctuation in the connections between



psychometric components and scholarly execution proposes expanding pertinence of information mining procedures, which could be utilized to give valuable experiences on the job of such factors in the demonstrating of learning measure [8].

### III. PROPOSED SYSTEM

In the proposed system the main objective of this system is to develop a system which gives accurate results based on which the final decision will be taken by the either the human being or intelligent system [1]

To give an example, there is a need for the system that should be able to give an exact idea about which course is best suited for a student based on the knowledge student possess [2]

### IV. IMPLEMENTATION

The implementation of this system will be carried out in step by step procedure as explained below.

Step 1: Create State Space to collect Raw Information.

Step 2: Once the information is collected pull the entire data into Knowledge based [2].

Step 3: Once the knowledge base is created, try to apply the different filtering techniques to extract information from knowledge.

Step 4: Once the information got extracted try to frame relevant information in the form of tree for better access.

Step 5: This is the place the algorithms like Hill Climbing [5], Heuristic Search and A\* applied to implement the new system [6]

Step 6: The best accurate results will be considered based on which the system will be implemented till we get the required output [6].

Step 7: Repeat the process till you get the information as needed.

Step 8: Stop the Process.

The above steps are implemented using the following algorithms.

The information will be collected using surveys and personal interviews. The data collection activity will be done in both vertically and horizontally [3] means as much as in-depth accurate data we can collect that will be collected from different people. And then it will be consolidated and most accurate data will be treated as answers for that particular question.



Figure 2: Intelligence Process



Once it is done the data will be stored using best first search algorithm for accurate indexing and optimal search. As it consists of both BFS and DFS algorithms the optimal answers will be searched as fast as possible. Once the data stored as shown in Fig.2. It will be transmitted into the form of predicate logic for intelligent system to understand and react accordingly [4].

The best part of this system is improvising the IQ quotient [5] of the system by applying the image processing techniques. For example if an intelligent system want to do some activities like crossing the road[6], if there is a divider in the middle obviously the system has to jump the divider but the height and width of the divider will change from road to road and city to city[1].

In this scenario the system will use the technique of Pattern and Gesture recognition and finds the Width and height of the block before jumping the road divider. So there won't be any kind of physical and logical damage for the system [2], and our system will give accurate values to system to take decision.

As mentioned above the system will see all possibilities of the data and give suggestions when and where it is needed. And this system also provides information obstacles available by applying pattern recognition [2] techniques. If there is any obstacle which needs to be moved or removed that will be done physically using offline methods [2].

## V. CONCLUSION

The above said system is a next level highly intelligent system which is very much essential in almost all domain of work. This system surely help in removing false information and also helping people to make right decision at right place at right time. This system will really help people to take accurate decisions with respect to career, business, financial elements etc., These kind of systems will be needed in so many areas here only education industry is taken as an example.

## VI. FUTURE ENHANCEMENT

In future this application can be installed in KIOSK machines and made available in different locations which would be connected to cloud to store previous data and will be useful wherever the system is used by the user for his internal purpose.

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