

Role of Big Data in Customer's Psychological Enslavement and Market Control

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Abstract:

Today's economy is basically the knowledge based economy and biggest asset in current scenario is the data, because whosoever controls data indirectly controls the decision making of the customer which will be explained in this paper. Digital revolution led to the boom of data throughout the world which led to the conceptualization of Big Data and management. This paper is the explanation about how management of this huge data explosion in recent time is good only if seen towards single side of the coin, but when we look towards the flip side of the same coin it leads to no less than enslavement of the customers and even control of market per se.

Keywords: Big Data, Economics, Enslavement, Privacy.

1. INTRODUCTION

Data Storage and management has a long history starting from late 1960s where Flat Files were used that has no structure imposed. 1970s brought the invention of structure based phenomenon like the relational database management system (RDBMS) that further improved technology. SQL and other data management tools which were provided by relational model added a level of abstraction which made easy for programmers in extracting value from data which is growing business demand. Exploding demand generated few problems: storage of data was expensive and also access became slow. At this stage, an urgency was finding new set of technologies for supporting the relational model [1]. Emergence of Entity-Relationship Model added additional abstraction for the increment of usability of the data. When data volume to be controlled by organizations grew out of control, solution emerged as data warehouse. It helped companies deal with increasingly large amounts of structured data that was needed to be reduced in volume and be something more focused upon particular area relating to business. Sometimes these data warehouses themselves were too complex and large and largely missed the speed and agility business required [2]. The answer was Data marts which was the further refinement of data. These data marts were focused on specific areas, more streamlined and managed queries faster than the massive data warehouse. Data warehouses and data marts provided solutions for companies needing a consistent way for managing massive traditional data. But when it came to

manage huge unstructured data volume, the warehouse hadn't evolve enough to meet the continuously changing demands. How would companies be able to transform their traditional data management approaches to handle the expansion of unstructured data volumes? The solution did not emerge overnight. As the storage of unstructured data started, vendors started adding capabilities such as BLOBs meaning 'binary large objects'. [3].

1.1 Basic Categorization of the data

Structured Data: Stored in database and have defined length and format.

Computer / Machine-generated: Generated by a computer/machine without human intervention like financial data or sensor data containing structured data. Some of the data it includes is machine generated whereas some may be human generated.

Human-generated: Data generated by human with help of machines like Click-stream data and Gaming data. [4]

Unstructured Data: - These are basically data which do not follow the specific format or structure.

- Of all Universal data 10% is structured while other 90% is unstructured which may be either machine generated or human generated.
- Unstructured data is the largest piece of the data equation, and the use cases for these kind of data are continuously booming. [5]

Machine-generated unstructured data: Satellite images, Photographs and video, Radar or sonar data, scientific data are some kind of machine generated unstructured data.

Human Generated Unstructured data: Data produced during whatsapp facebook chatting and usage is the best example of the above said data type.

Semi-structured data: Data falling between structured and unstructured data. Semi-structured data does not necessarily have a fixed schema or structure but it may be self-describing and may have simple label and value pairs. [6]

2. Motivation of the study

A big data is the capability to manage a huge volume of disparate data, at the right speed and within the right time frame to allow real-time analysis and reaction.

Big data is typically broken into 3 characteristics basically described as the 3 Vs as [7] :-

- Data having extremely large Velocity-Volume-Variety.



2.1 Why Big Data ?

- Evolution of data management: Emergence of relational database lead to the need of set of tools to allow managers to study and analysis of Data-element relationships..
- Creation of manageable data structures: Lead to the development of (ODBMS) object database management system. The object database stored the BLOB as “an addressable set of pieces” so that we could see what’s inside.
- A programming language and a structure for the data elements was included in object databases so that it is easier manipulating various data objects .
- Content &web management: - As stated above 90% of data available today is unstructured. Enterprise Content Management systems were evolved in the 1980s for providing businesses with the capability to manage unstructured data in more efficient way.[8]

2.2 Big Data Architecture: Management of the Big Data successfully

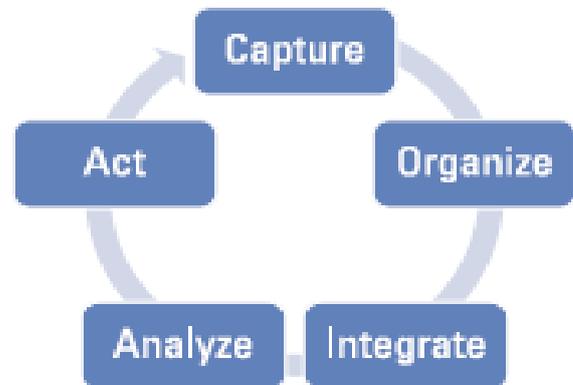
Capture-Organize-Integrate-Analyze-Act

Firstly data must be captured then organized and further

integrated. After successful implementation of this phase, data is analyzed based on the problem which is to be addressed. Finally, based on outcome of that analysis management part is executed.

The cycle of Big Data

Management Architecture



3. STATEMENT OF PROBLEM

In today’s world data is the most important currency to deal with. Data which is raw facts or figures is processed to generate the information. Analysis of information is the knowledge. Knowledge gives the data holder the ability to influence the customer in a huge way.

We all know the fact that 90% of total data is unstructured which is our day to day life’s unmanaged data resource. When a person gets access to this resource he has access to our Soul and Heart, our Thinking, our likes dislikes. Now same person analyses our needs or cravings and presents the same in front of us. At first instance our privacy is attacked and on other instant we are indirectly forced to buy a good or service.[9-10]

For Example:

- ✓ Why in a particular area dominoes or swiggy comes and spreads when required the most? Is this perfect timing or coincidence or data theft cum analysis?
- ✓ Why we do buy certain product or services when we even do not need them? It shows that our decision making is basically controlled and this is psychological enslavement.

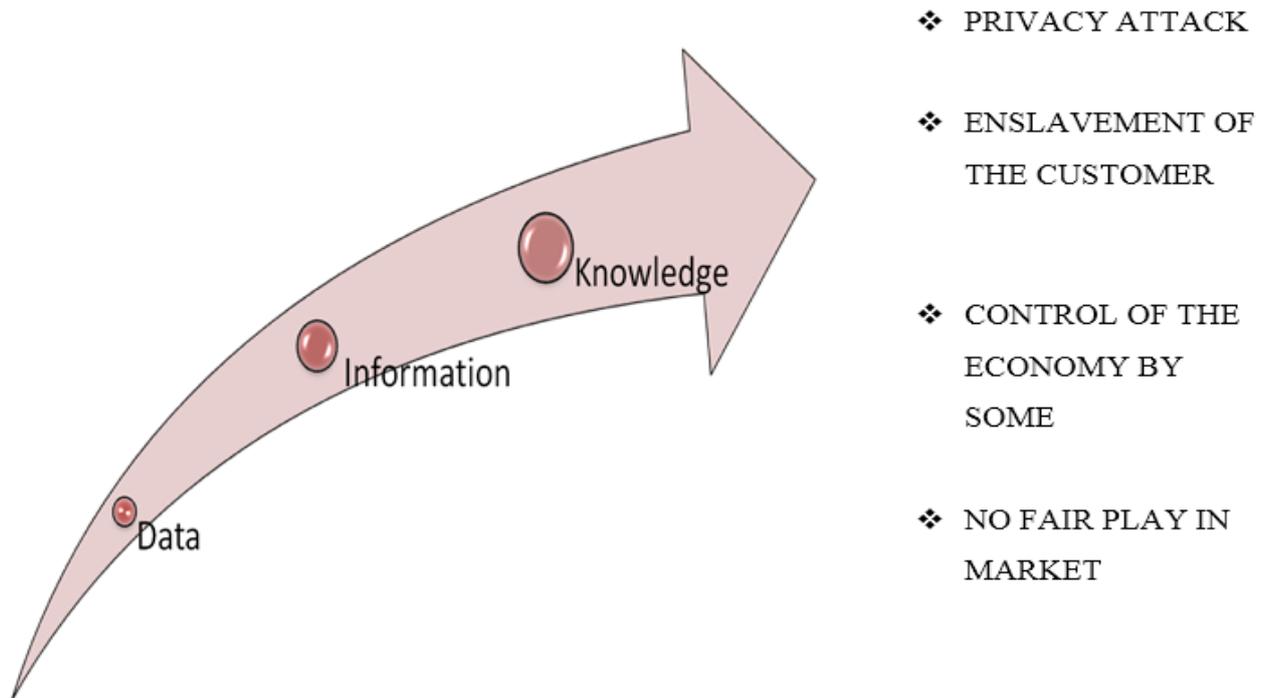
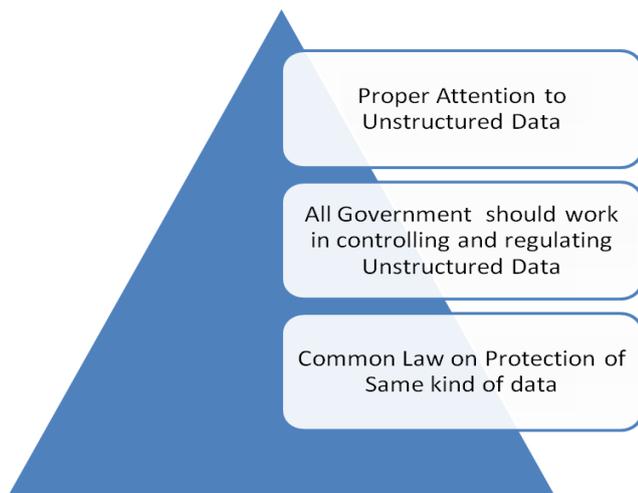


Figure representing the Future Consequences

4. SOLUTIONS PROPOSED FOR THE ABOVE PROBLEM

- Data uncontrolled or too much controlled is prone to data theft which hurts in users Financial, Mental, Social and Psychological arena.



- Structured data is given most importance and attention but unstructured data must be managed and protected properly because of the above said reasons.
- All governments of the worlds should work together in controlling and regulating the unstructured data.
- A common law must be enacted in this direction. [11-12]

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