1.4 Big Data – Big Insights

ICE BREAKERS

➢ **Give business suggestions to the respective industry/company for the following situation. One is done for you.**

You have received data that -

(a) Many passengers prefer morning flights between 7 am and 9 am from Mumbai to Delhi.

Suggestion: Increase the number of flights between 7 am and 9 am.

(b) Many students are opting for UPSC/MPSC Exams.

Suggestion: ....

Ans: Make availability to arrange lectures in a college for UPSC/MPSC preparations.

(c) Many people go for morning walk to Kamla Nehru Park.

Suggestion: ....

Ans: Keep it neat & clean as well as provide basic exercise equipment.

(d) Many people buy clothes from miracle.com an online shopping site.
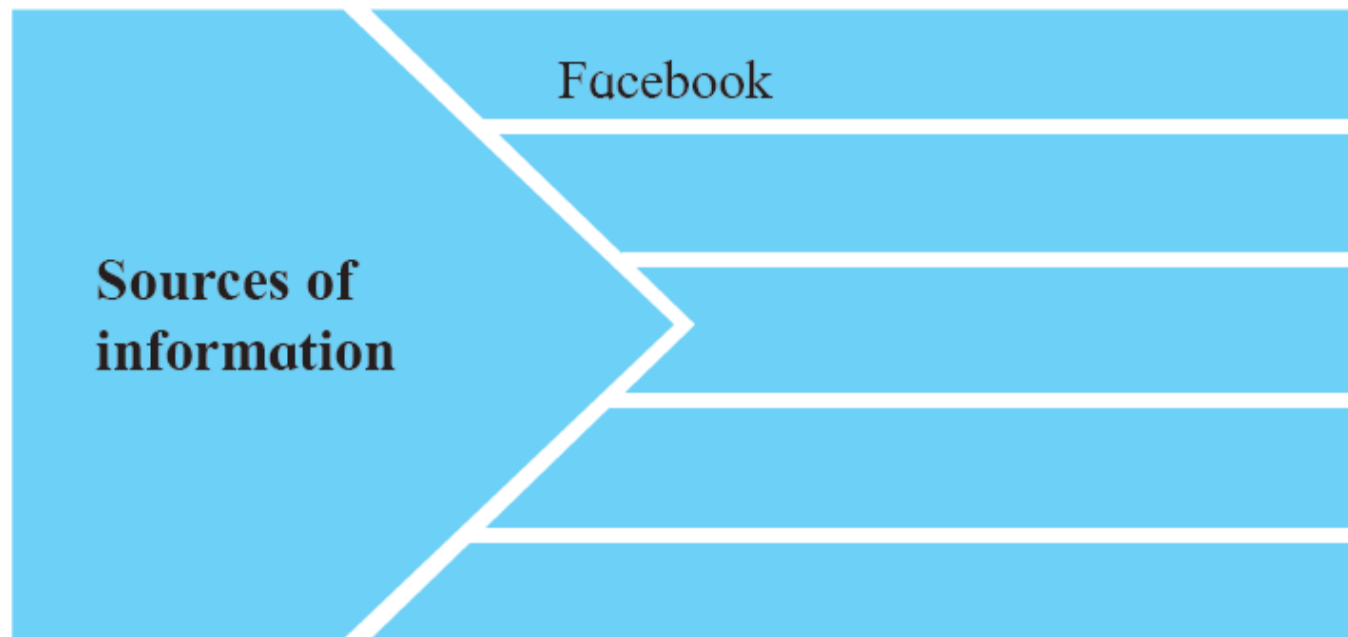
Suggestion: ....

Ans: People should take care about their safe bill payment.

(e) The viewership on television is more between 8 pm and 10 pm.

Suggestion: ....

Ans: Programme should be family oriented, moral and knowledgeable.

Facebook

Sources of
information

Ans:

News paper   Books   Magazines   Diary

NEWS

Information Resources

PATENTED

Patents,
White Papers,
Manuals,
Dictionaries

Movies   Plays and Drama   Audio &
Video   Internet

Information
Sources

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Margin Questions

Discuss how Big Data is increasing in volume, variation, velocity, veracity and value.

Ans:

Big Data can be **petabytes or exabytes** of data consisting of billions to trillions of records of millions of people- all from different sources, for example web, sales, customer contact center, social media, mobile data and so on. The data available to industries and companies is enormously increasing in volume, variation, velocity, veracity and value.

• How can you check the condition of the goods?

Ans:

If you have ordered
something online you can track the location of your goods
in transit, you can also track the condition of the goods.

• How can you reduce risk in transport?

Ans:

Big Data has been useful in identifying and tracking the exact location of a place. Your GPS and Google Maps make use of Big Data. With geographic positioning and radio frequency identification sensors we get the real-time data about traffic, congestion on a particular route, information if the route is closed or if it is a one-way route, understanding accident prone areas etc. This has immensely helped the logistics companies to reduce risks in transport, improve speed and reliability in delivery

Do you think Big Data has improved the quality of life? How?

Ans:

Yes, I think big data has improved the quality of life. Because we have our own mini biomedical research devices. They detect our heart rate, monitor the patient's sleep pattern, keep a record of his exercise, the distance walked etc. The analysis of this data collected can give new insights and provide a personalized, individual feedback to each and every person. Nowadays we have gadgets to monitor blood sugar, blood pressure etc. at home; 24 x 7 monitoring can be provided to patients in hospitals too. With the help of Big Data, the doctors can now have better diagnosis of any ailment, the effect of any drug etc.

Can we understand the economy of the country by the data on Banking and Finance?

Ans:

Yes, we can understand the economy of the country by the on Banking and Finance. Because due to the big data it is possible to analyse the economical condition of the country.

Do you think people click consciously on Facebook ? Discuss.

Ans:

I don't think so, because people are just interested in their interesting content, they do not think much about whether it is safe or not. So now days much more cyber attacking such cases are happening.

Do you think Big Data will help to bring improvement in students?

Ans:

Yes, I think Big Data will help to bring improvement in students. Because it will make possible to analyse their study patterns, and we can now prepare customized and dynamic learning programmes according to the need of an individual student. Every student's comprehension level is different. The course material can now be designed catering to different requirements of the students. Big Data makes it convenient to understand their choices, their difficulties, information regarding various courses and their specialties; we also have an access to the results.

Discuss a solution provided by Big Data.

Ans:

Yes, we can say that the big data has provided a solution on every problem. We have innumerable uses of Big Data. It is helpful in scientific researches, understanding geographical phenomena, helping in the smooth working of the government machinery etc. It is a genie in our hands. It lies in our hands to make the optimum use of it for the benefit of mankind.

(A1) **Youtube has many videos on various things. Listen to the uses and health benefits of 'Lemon' and share them with your friends.**

Ans:

Health Benefits of Lemon

✓ Reduce your Body Weight.
✓ Eliminate bad Cholesterol.
✓ Reduce Digestion Problems.
✓ Protect from Skin related Problems.
✓ Cures Throat Infection.
✓ Protect from High Blood Pressure.
✓ Treat from Flu, cold & Fever.
✓ Protect from Toothache.
✓ Act as a Blood Purifier.
✓ Cures Respiratory Problems (Asthma).
✓ Good Hair care.
✓ Stop Internal blood Bleeding.

(A2) (i) **Make pointwise notes from the lesson regarding the uses of Big Data in the following application. Do not write complete sentences.**

(a) Location Tracking -

(1) ....

(2) ....

(3) ....

(4) ....

Ans:

1) the real-time data about traffic
2) congestion on a particular route
3) online purchased goods.
4) track the condition of the goods
5) to reduce risks in transport.
6) improve speed and reliability in delivery.

(b) Health Care Industry -

(1) ....

(2) ....

(3) ....

(4) ....

Ans:

1) give new insights and provide a personalized, individual feedback
2) better diagnosis of any ailment
3) the effect of any drug
4) better analysis of the health
5) monitoring the outbreaks of epidemics and diseases.

(c) Education Industry -

(1) ....

(2) ....

(3) ....

(4) ....

Ans:

1 prepare customized and dynamic learning programmes.
2 Can be designed required course material
3 convenient to understand students' choices
4 can gauge the progress of the students
5 give new insights into the education industry

(ii) When you are asked for personal details on social media, what precautions will you take? Discuss in pairs and write down.

Ans:

HERE ARE TIPS TO STAY SAFE ON SOCIAL MEDIA:

1) Use a strong password. The longer it is, the more secure it will be.
2) Use a different password for each of your social media accounts.
3) Set up your security answer option is available for most social media sites.
4) If you have social media apps on your phone, be sure to password protect your device.
5) Be selective with friend request. If you don't know the person, don't accept their request. It could be a fake account.
6) Become familiar with the privacy policies of the social media channels you use and customize your privacy settings to control who sees what.
7) Remember to log off when you're done.

(iii) Do you think all the data we receive is used for positive things? If 'No', make a list of the negative things which can be done with the help of Big Data.

Ans:

No, I don't think all the data we receive is used for positive things.

Examples of data misuse

There have been many well publicised examples of data misuse, from Big Tech through to Brexit:

- Twitter recently admitted that it "inadvertently" used the personal information of its users, which it collected on the pretext of security purposes, to enhance targeting of advertisements.
- Google is the subject of an investigation by the Irish data regulator, which has accused the search engine of "exploiting personal data without sufficient control or concern over data protection."
- Facebook has continued to face allegations of data privacy failures in connection which the sharing of user data with other tech firms, following on from the Cambridge Analytica scandal.
- Jeff Bezos does not escape scrutiny either, with Amazon subject to an investigation by the EU competition watchdog, preliminary findings of which claim that the company "appears to use competitively sensitive information – about marketplace sellers, their products and transactions on the marketplace."
- The Leave.EU pro-Brexit group, which was co-founded by businessman Aaron Banks, and his insurance business Eldon Insurance, have both been fined by the Information Commissioner's Office (ICO) for using personal data interchangeably. Information Commissioner Elizabeth Denham said, "It is deeply concerning that sensitive personal data gathered for political purposes was later used for insurance purposes; and vice versa. It should never have happened."
- The ICO is investigating the AdTech industry more broadly, in particular looking at "how personal data is used in real time bidding (RTB) in programmatic advertising" and has raised concerns about how data is shared: "the scale of the creation and sharing of personal data profiles in RTB appears disproportionate, intrusive and unfair, particularly when in many cases data subjects are unaware that this processing is taking place".

Guess the meaning of the following idioms and phrases and use them in sentences of your own. One is done for you.

One-size-fits-all – suitable for or used in all circumstances

The wrist watches have adjustable belts, so one- size- fits- all

(a) 'Once in a blue moon'

(b) 'One man army'

(c) 'Once bitten twice shy'

(d) 'One up on'

Ans:

a) **once in a blue moon:** not very often
Sentence: *Once in a blue moon, there's an issue I can't resolve*

b) **'One-man army':** is someone who can do, or thinks they can do, everything by themselves and without assistance
Sentence: Every competition you are your one-man army.

c) **' Once bitten twice shy'** : said when you are frightened to do something again because you had an unpleasant experience doing it the first time

Sentence: I will never work with Peter again. He expects everyone to do the work on his behalf, **once bitten twice shy.**

d) **'One up on':** to have an advantage over someone/something
Sentence: This information is going to give me a one up over my competitors.

(A4) (i) Do as directed.

(a) Advertisers are one of the biggest players in Big Data.

(1) Begin the sentence with 'Very few ………….'

(2) Use 'bigger than' and rewrite the sentence.

Ans:

1) **Very few** players in Big Data are as big as advertisers.
2) Advertisers are **bigger than** most of players in Big Data.

(b) No other diagnosis is as good as the diagnosis done with the help of Big Data.

   (1) Use 'best' and rewrite the sentence.

   (2) Use 'better than' and rewrite the sentence.

Ans:

   1) With the help of the Big Data diagnosis is the best diagnosis.

   2) With the help of the Big Data diagnosis is better than any other diagnosis.

(c) These internet giants provide the greatest data about people.

   (1) Begin the sentence with 'No other........'

   (2) Use 'greater than' and rewrite the sentence.

Ans:

   1) No other data about people provide as great as these internet giants.

   2) These internet giants provide greater than any other data about people.

(ii) Read the sentence from the text.

   New insights have enabled the banks and finance companies to come up with suitable plans.

   This sentence can be rewritten as 'New insights have enabled the banks as well as finance companies to come up with suitable plans'.

   Remember, 'as well as' serves the same purpose as that of co-ordinating the conjunction 'and' in the sentence. When one of them is inserted in the sentence, other should be removed.

Use 'as well as', 'either .... or' in the following sentences.

(a) Whatever activity we do online is recorded, monitored and analysed.

Ans:

   1) Whatever activity we do online is recorded, monitored as well as analysed.

   2) Whatever activity we do online is either recorded, monitored or analysed.

(b) Big Data has been useful in identifying and tracking the exact location of a place.

Ans:

   1) Big Data has been useful in identifying as well as tracking the exact location of a place

   2) Big Data has been useful in either identifying or tracking the exact location of a place.

(c) Weather sensors and satellites help us to understand the weather and help in weather forecasting.

Ans:

1) Weather sensors as well as satellites help us to understand the weather and help in weather forecasting.
2) Either weather sensors or satellites help us to understand the weather and help in weather forecasting.

(d) Big Data helps in monitoring the outbreaks of epidemics and diseases.

Ans:

1) Bid Data helps in monitoring the outbreak of epidemic as well as diseases.
2) Bid Data helps in monitoring the outbreak of either epidemic or diseases.

(e) New insights have enabled the banks and finance companies to come up with suitable plans.

Ans:

1) New insights have enabled the bank as well as finance companies to come up suitable plans.
2) New insights have enabled either the bank or finance companies to come up suitable plan.

(A5) (i) Interview the students of your class regarding the career they would like to pursue and the reason for selecting that particular career. Collect the data of your class and analyse the information you have collected.

Ans:

I have taken interview of 50 students of my class regarding the career they would like to pursue and the reason for selecting that particular career. I have collected all 50 students data.

Analysis:

I interviewed 50 students. Out of them 30 students were boys and 20 were girls. After analysing their career related data, I come in a conclusion that 40% students were interested to do their career in administrative field. They want to join UPSC/MPSC competitive exams. 10% students wanted to do their career in share market or C. A. 10% students preferred to do their career in modelling or Bollywood field. Interestingly 10% students wanted choose their career in YouTube field. 20% students are interested to start their own business. 10% students wanted to join army to serve the nation. After all I can say that maximum students are interested to join civil service sector. And very few students are ready to join army or navy. It is a concerning thing for us.

(ii) To listen well is as powerful a means of influence as to talk well and is essential to all true conversations. Form a group and have a group discussion on the topic.

(a) Social Media – Curse or Boon

(b) Women Empowerment and Equality

(c) Climate Change

Ans:

Social media-A curse!

1. It makes people addicted to it which affects their daily life activities.
2. It makes people careless about the traffic rules i.e. using phone while driving leading to accidents and danger to life.
3. It increases cases of cybercrimes such as stalking, cyber bullying etc.
4. It reduces physical activity of an individual leading to unhealthy lifestyle by devoting more time to it.
5. It increases the chance of losing all your personal data (being provided in social networking sites) to hackers which can further used by them in cyber frauds.

Social media-a boon!

1. It helps us to communicate with our near & dear ones, no matter how far they are.
2. It helps us to interact with people from different community & country.
3. It helps to gain vast and diversified knowledge through different web pages and blogs.
4. It open doors for online businesses by promoting their brand through social media.

Conclusion

A social media can be both a curse and a boon, so to make good use of it:-

1. Limit its usage
2. Don't share personal details
3. Be aware of the cyber laws prevailing in India.
4. Just like every coin has two faces, everything in this world has its own pros and cons. Be aware of all the cons and act accordingly.

b) women empowerment and equity

Ans:

Investing in gender equality and women's empowerment can unlock human potential on a transformational scale. For societies to thrive, women and girls, men and boys must have equal access to education, healthcare, and technology. They must have equal control of resources, lands, and markets. And they must have equal rights and opportunities as peace-builders and leaders.

Transforming the ways in which we engage men and boys in gender equality and women's empowerment efforts is essential to long-lasting social change. We must enlist their support for the empowerment of women and girls across their lifespan, and also encourage them to

challenge the negative cultural and social definitions that can limit their own ability to achieve their full potential.

It is vital to promote the rights of all individuals and reduce gender-based violence while mitigating its harmful effects on individuals and communities. Unless women and girls, men and boys, fully enjoy their human rights and are free from violence, progress toward development will fall short.

c) Climate change:

 Global climate change has already had observable effects on the environment. Glaciers have shrunk, ice on rivers and lakes is breaking up earlier, plant and animal ranges have shifted and trees are flowering sooner.

Effects that scientists had predicted in the past would result from global climate change are now occurring: loss of sea ice, accelerated sea level rise and longer, more intense heat waves.

Scientists have high confidence that global temperatures will continue to rise for decades to come, largely due to greenhouse gases produced by human activities. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5 to 10 degrees Fahrenheit over the next century.

According to the IPCC, the extent of climate change effects on individual regions will vary over time and with the ability of different societal and environmental systems to mitigate or adapt to change.

The IPCC predicts that increases in global mean temperature of less than 1.8 to 5.4 degrees Fahrenheit (1 to 3 degrees Celsius) above 1990 levels will produce beneficial impacts in some regions and harmful ones in others. Net annual costs will increase over time as global temperatures increase.

Global climate is projected to continue to change over this century and beyond. The magnitude of climate change beyond the next few decades depends primarily on the amount of heat-trapping gases emitted globally, and how sensitive the Earth's climate is to those emissions.

(A6)   Find out job opportunities in the following areas and the skills required for them.

(a) Clinical Data Management   (d) Data Operations and Research

(b) Network Operations   (e) Data Entry Operation

(c) Data Processing

Ans:

Google it ….