**Topic**: Info Tech in Global Economy.

**Q1:**Whatare the 11 possible main categories of ICT tools and technologies?

**Q2:**What is the aim of Big data analytics tools?

**Instructions:**

* Need 3 Responses to the above 2 questions for other student posts (Each Response Separate paragraph for 2 questions)
* Minimum 150 words for each response (use uploaded document to see other student posts)
* Textbook attached
* No plagiarism please.

**Initial Post 1:**

**Q1.** The below listed are the 11 ICT Tools and Technologies. Provided a short synopsis on each tool ad technology for an overview.

1. **Visualization**:

Visualization tools help the clients gather and access data along with providing a clear context in a graphical structure. For instance, they can be utilized during the decision making arrange so as to calibrate new approaches, during the execution and assessment arrange so as to comprehend whether the use of a specific approach brought any progressions or notwithstanding during the plan setting stage so as to recognize issues that ought to be tended to with approaches.

1. **Argumentation**:

Argumentation tools envision the structure and discussions for the critical systems with an efficient approach. All things considered, these devices can be helpful in all phases of the approach cycle, at whatever point a focused on the consultation is required; perhaps they are progressively applicable for the motivation setting, the strategic plan, and basic leadership, and the assessment and end stages where such discourses are generally performed. As to potential clients, on a fundamental level, all partners can utilize argumentation devices.

1. **e-Participation**:

e-Participation tools bolster the dynamic commitment of the natives in all the acceptable procedures. All partner types are potential clients of these devices, albeit common utilization alludes to connections between the administration and the general population. Because of the wide range of upheld exercises, eParticipation instruments might be utilized in any phase of the strategy cycle.

1. **Opinion mining**:

Opinion mining tools makes the clients give a better context understanding the sense and meaning of the overall situation. They can be utilized for measuring the acknowledgment capability of a new approach or for recognizing negative assessments of an arrangement. Because of their specialized multifaceted nature, conclusion mining instruments are more qualified to be utilized via prepared institutional partners or non-institutional partners, however not the overall population.

1. **Simulation tools**:

Simulation tools help understand the certifiable framework or wonder and help clients comprehend the framework and the impacts of potential activities so as to settle on better choices. They can be utilized for reenacting the long haul effect of various approach options and along these lines aid the strategy detailing and basic leadership arrange. Recreation instruments are actually mind-boggling to execute; along these lines, they are generally appropriate for use by a couple of specific institutional or non-institutional partners.

1. **Serious games**:

Serious games train users through simulation and virtual environments. They are for the most part applicable to the strategy definition and basic leadership phase of the arrangement cycle, as players may expect a partner's job so as to investigate distinctive approach situations on a given point and settle on pertinent choices. Genuine games can likewise be utilized in the usage phase of the approach cycle, for teaching residents on the most effective method to apply a specific state strategy, for example, wellbeing or natural approach. The fundamental partner gathering of genuine games is the wide open.

1. **Tools specifically developed for policymakers**:

Tools specifically developed for policymakers have been recently developed to facilitate the design and delivery of policies. They are significant to the strategic plan and basic leadership organizes and to the assessment and end phase of the strategy cycle. Obviously, their client gathering incorporates just institutional or non-institutional partners.

1. **Persuasive tools**:

Persuasive tools aim to change users’ attitudes or behaviors. These can be utilized by institutional or non-institutional partners for affecting open demeanors and practices. In this manner, it is for the most part applicable to the usage phase of the strategy cycle, for reinforcing approach appropriation.

1. **Social network analysis (SNA) tools**:

Social network analysis (SNA) tools analyze social connections and identify patterns that can be used to predict users’ behavior. These can be utilized in the approach plan also, basic leadership arrange, and in the usage phase of the approach cycle for choosing elective arrangements or for fortifying strategies' usage. SNA is a complex procedure requiring specific information, in this way it must be utilized via prepared institutional or non-institutional partners.

1. **Big data analytics tools**:

Big data analytics tools support the entire big data exploitation process from discovering and preparing data sources, to integration, visualization, analysis, and prediction. These exercises are pertinent to all phases of the strategy cycle, perhaps less pertinent to the execution arrange. In any case, the clients of this innovation can be the legislature in essence or non-institutional partners inspired by dissecting information for a particular point.

1. **Semantics and linked data tools**:

Semantics and linked data tools enable large amounts of data to become easily published, linked to other external datasets, and analyzed. The connected information devices can encourage better comprehension of social information and popular conclusion and better expectation of open responses, for example to various strategy options. Therefore, semantics and connected information instruments appear to be pertinent to all stages of the arrangement cycle. Once more, the forte required for applying these advances implies that lone institutional or non-institutional partners might be the quick clients of such advances.

**Q2.** Through Big Data Analytics one can achieve multiple advantages and aims, of which I would like to discuss here are, Open information makes noteworthy open doors for accomplishing further and quicker experiences towards information advancement, basic leadership, and interdisciplinary joint effort. Be that as it may, they have little esteem if individuals can't utilize them. In this way, new devices and advancements were grown of late to address this issue. One of these innovations is an enormous information investigation. Enormous information investigation instruments have risen because of the expanding volume and assortment of open information that ended up accessible on the web. The term enormous information alludes to datasets so huge and complex that are hard to process utilizing customary information the executives, what's more, preparing methods. Huge information examination apparatuses plan to handle a few mechanical and systematic difficulties, for example, breaking down unstructured information, revealing shrouded designs, misusing internet based life, settling on quick choices on gigantic information volumes, and so on. Besides, huge information prescient investigation means to open the estimation of huge information and make forecasts about future, or generally obscure occasions, in a close constant mode.

**Initial Post 2:**

**Q1: What are the 11 possible main categories of ICT tools and technologies?**

1) Visualisation tools helps higher management better understand current organization data standing and provide a more visual charts and bars, especially by presenting data in a graphical form.

2) Argumentation tools visualise the structure of complex argumentations and debates as a graphical network.

3) eParticipation tools support the active involvment of residents in social and political processes including, e.g. voting advice applications and deliberationtools.

4) Opinion mining tools perform analytics and make sense of thousands of public comments written in different application contexts.

5) Simulation tools represent a real-world system or phenomenon and help users understand the system and the effects of potential actions in order to make better decisions.

6)Serious games train users through simulation and virtual environments.

7) Tools specifically developed for policy makers have been recently developed to facilitate the design and delivery of policies.

8) Persuasive tools aim to change users’ attitudes or behaviours.

9) Social network analysis (SNA) tools analyse social connections and identify patterns that can be used to predict users’ behaviour.

10) Big data analytics tools support the entire big data exploitation process from discovering and preparing data sources, to integration, visualization, analysis,and prediction.

11) Semantics and linked data tools enable large amounts of data to become easily published, linked to other external datasets, and analyzed.

**Q2: What is the aim of Big data analytics tools?**

Big data analytics tools aim to tackle several technological and analytical challenges,such as analysing unstructured data, uncovering hidden patterns, exploiting social media, making fast decisions on massive data volumes, etc. Furthermore, big data predictive analytics aim to unlock the value of big data and make predictions about future, or otherwise unknown events, in a near-real-time mode (Nyce 2007).

Big data analytics tools can be used for information purposes, e.g. for understanding what people are saying about government, and which policies, services, or providers are attracting negative opinions and complaints.Moreover, they can find out what people are concerned about or looking for, e.g.from the Google Search application programming interface (API) or Google Trends,which record Google’s search patterns of a huge number of internet users. Based on analysis of current and “historical” facts, they can develop accurate models and forecasts about the future.
create real-time solutions to tackle challenges in agriculture, health, transportation,and more; promote greater openness; and introduce a new era of policy and decision making (Bertot et al. 2014).
 In addition,using geospatial, population, traffic, and travel-to-work information, it is possible to locate the best place for a hospital, school, or community facility, to serve communities most at need, or cut travel times.

**Initial Post 3:**

**Answer for Q1**

The 11 main categories of information and communication technology (ICT) tools and technologies for policymaking theory and policy-making processes are

1. Visualization tools: These tools “helps the users to understand the data and provide with the more meaningful view in context, especially by presenting data in graphical form” (Janseem, Wimmer & Deljoo, 2015, p. 129). Visualization tools allow huge amount of data to be displayed in an understandable form. These tools help in displaying the data with their appropriate meaning to show the relationships which could not be easily understood with raw data or with the non-visual format.
2. Argumentation tools: this tools “visualize the structure of complex argumentations and debates as a graphical network” (Janseem, Wimmer & Deljoo, 2015, p.129). The author has also stated that Argumentation tools help the large numbers of stakeholders to participate in discusses and contribute to creating arguments and suggestions which can, later on, be visualized. These visual representations will be much easier to understand and helps in analyzing complex databases.
3. eParticipation tools: these tools “have been specifically developed to involve citizens in the policymaking process to enable citizens to get informed” (Janseem, Wimmer & Deljoo, 2015, p. 129). eParticipation tools enable many kinds of citizen involvement with the help of several tools like provision of information to deliberation, community building and collaboration, consultation, polling and decision making (Janseem, Wimmer & Deljoo, 2015, p. 134).
4. Opinion mining tools: “Opinion-mining tools perform a computational study of large quantities of textual contributions in order to gather, identity, extract, and determine the attitude expressed in them” (Janseem, Wimmer & Deljoo, 2015, p.134). Opinion mining is also referred as the extraction of sentiments from unstructured data.
5. Simulation tools: “Simulation tool represents a real-world system or phenomenon and helps users understand the system and the effects of potential actions in order to make better decisions” (Janseem, Wimmer & Deljoo,2015 , p.129). These tools are based on agent-based modelling to prepare a model and reproduce complex systems (Janseem, Wimmer & Deljoo, 2015, p.137).
6. Serious games: these tools help users through simulation and virtual environment.
7. Tools specifically developed for policy makers: these tools are designed for all stakeholders for delivering renovated policies strategies.
8. Persuasive tools: “Persuasive tools aim to change users’ attitudes or behaviours” (Janseem, Wimmer & Deljoo, 2015, p.129). These tools are mostly opted by government agencies for promoting several political causes and improve policies approval from citizens
9. Social network analysis (SNA) tools: “Social network analysis (SNA) tools analyse social connections and identify patterns that can be used to predict user’s behavior (Janseem, Wimmer & Deljoo, 2015, p.129)”. These tools are very much helpful for policy making. It helps in identifying social network patterns and important factors and also try to control them with the help of besieged policy interferences.
10. Big data analytics tools: “Big data analytics tools support the entire big data exploitation process from discovering and preparing data sources, to integration, visualization, analysis, and prediction” (Janseem, Wimmer & Deljoo,2015 , p. 129).
11. Semantics and linked data tools : “Semantics and linked data tools enable large amounts of data to become easily published, linked to other external datasets, and analyzed” (Janseem, Wimmer & Deljoo,2015 , p.129). These tools helps users to develop their documents with the help of software related to semantics of data which make use of metadata to facilitate more complicated data mining.

**Answer for Q2**

“Big data analytics tools have emerged due to the increasing volume and variety of open-source data that has become available on the web. The term Big data refers to the datasets so large and complex that are difficult to easily process using available traditional data management and processing techniques”

The aim of Big data analytics tool to make the data easily available for the users without restrictions and a regular machine-readable format. Big data analytics tools aim to tackle several technological and analytical challenges, such as analyzing unstructured data, uncovering hidden patterns, exploiting social media, making fast decisions on massive data volumes, etc. Furthermore, big data predictive analytics aim to unlock the value of big data and make predictions about future or otherwise unknown events, in a near-real-time mode ((Janseem, Wimmer & Deljoo,2015). Big data analytics tools are being used by every firm today for information purposes. These tools are also helping businesses to take appropriate decisions and gain success. These tools are helping the government for creating a smart city. Every big organization today is making use of these tools as it helps the customers sift through huge information and summarize the details that their competitors won’t have.

Big data analytics tools can help an organization to generate new revenue opportunities, go for effective marketing, improved Customer support, and retaining competency. “Big data analytics tools can be useful in policy-making for processing huge amounts of information and, through this, for detecting and predicting patterns and trends of the public” (Janseem, Wimmer & Deljoo,2015 , p. 150).