

# COMP 7950 Writing assessment Part 2

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## Task 1

The big data are the massive volumes of data which is collected by IT companies, the financial sector and government. They contain the different types of computer data files in their servers, such as bank transaction record, customers personal data and CCTV video clips. The companies can use the big data technology when they make a good decision to analyze data and extract some useful information from the files.

Actually, the big data technology can handle the unstructured and multi-source data, it is allowed to achieve multiple objectives for input criteria. Many managers have used this tool to make internal business decision support what time is the best of promoting the new product or service in a customer target group. Besides, the advantage of using big data technology is enabled in four main parts and provided some cases to explain how to achieve the business goal of the big companies and public service sectors. There has shown as below:

**Time reducing:** using big data should be reducing of the time cycle, many big retail store chain needs to update the price list of sales products regularly, these items should have at least the several hundred of thousand items to optimize pricing within a few days or short period of time. For example, Walmart, Macys, they need to keep track of changing sales products market price more frequently in other competitors. In this case, the pricing data are involved much more complex analysis techniques and large-scale calculation. It can be implemented that the Hadoop cluster is an open source application to analyze the amount of data and decreased the hardware investment cost around 70 %. The company has developed many customer relationship models to share some related companies for marketing department, it can be decreased the workload of building this model and share information more easily.

**Cost effective:** many big enterprises have handled high-volumes of data and data warehouse in their database, it is stored incremental data in database system everyday which is contained over petabyte capacity. For example, bank transaction record, UPS truck delivery package data. Many IT managers have proposed to buy a Hadoop cluster service doing data analysis work, because this service provider has provided a variety set of complex mathematical function and allow to analyze large sets of data. It is not developed these functions from an internal IT team for saving resources in the company.

**Good decision making for business:** the companies have collected data in IT system from customers. Although, this data is unstructured and cannot analyze to build up the customer relationship in a typical way, the big data technology can handle this set of data to make a good decision, it is transformed to structured data from multi-channel data sources. For example, e-banking system, health care system in US. The banks can know more consumer behavior for each customer which is collected the related data from call center, such as web clicks frequency, bank notes flow, etc. Therefore, the banks can determinate what the financial product or service is suitable for customers, it is a very important benefit to have some analysis tool making the picture of customers relationship and know customers satisfaction rate for the customer service department.

**Providing new product to market:** many IT companies have provided the data-based products and services for customers, they must use the big data technology to estimate the customers responding for producing new

product or service. In a typical case, Google is the best IT company and provided the business intelligence analysis service in developing big data technology. For example, BigQuery, it is a powerful big data analysis platform and focus on finding meaningful information in massive data. The selling point is not needed the database management skill for users, and provided high security for data encryption.

For these above cases, it is proved that the big companies have used the Hadoop platform to implement the big data applications, they do not invest over million of dollars to maintain hardware infrastructure for the enterprise data analysis system. As the Hadoop platform is a unified storage and manipulated complex computational processing to the highly large scalable of the data set. The MapReduce is a processing engine using in the platform, the unstructured data can define the new data structure for a short time when this engine has a set of processing instruction to distribute data in various cluster nodes. In addition, some sophisticated programming API functions and report tools have provided to the users, they can get easily to manipulate massive data doing the complicated tasks, such as using text mining function for finding the keywords and generate some market trend report in consumer behavior pattern for the period of time.

Therefore, the result of findings were conducted that the description of Hadoop platform is a powerful big data tool and the benefits can provide for the big companies, such as free to internal IT resources investment, received latest technology support from Hadoop, etc. The author totally agrees with these findings, but it is a lack of discussion some important issues for using this platform. For example, data security, the price of purchasing Hadoop service. These topics have not any information to demonstrate in this paper.

The IT manager should consider the risk of uploading data to the platform, because this data is contained the large of invaluable information. If hackers can access this data without strictly authentication processing, all the company secret has stolen and used in illegal ways by them. Definitely, it is a big disaster for the company. However, it is no any information to description about the topic of Hadoop platform's data protection policies in this finding. Moreover, the findings have shown that the companies can reduce the IT hardware infrastructure investment when they have used Hadoop cluster. It only reports the percentage of decreasing investment, no any real price budget plan to compare the differences of using Hadoop and self producing the big data platform.

In conclusion, this paper can give many big data concepts and good examples for using big data technology in IT industry, but it is a lack of discussion some topics of data security and financial planning to impact using this new technology.

## Task 2

1.

Complete citation (Author(s), Date of publication, Title (book or article), Journal, Volume #): Issue #, pages:  
Cheung, C. M., Chiu, P. Y., & Lee, M. K. (2011). Online social networks: why do students use Facebook?.  
Computers in Human Behavior, 27(4), p.1337-1343.

If web access (url; date accessed):

[http://www.researchgate.net/publication/220495008\\_Online\\_social\\_networks\\_Why\\_do\\_students\\_use\\_Facebook](http://www.researchgate.net/publication/220495008_Online_social_networks_Why_do_students_use_Facebook)

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Key Words: Online social networks, Social influence, Social presence, Users and gratifications, Facebook, We-intention

General subject: social networking website, university students, facebook, interpersonal relationship

Specific subject: social influence, social presence, we-intention, users and gratification, learning motivation, self-discovery, social enhancement, entertainment value, interpersonal connective, purposive value.

Hypothesis:

1: A stronger subjective norm leads to a higher level of We-Intention to participate in an online social networking site.

2: Stronger group norms lead to a higher level of We-Intention to participate in an online social networking site.

3: A stronger social identity leads to a higher level of We-Intention to participate in an online social networking site.

4: The level of purposive value of using online social networking sites positively affects We-Intention to use online social networking sites.

5: The level of self-discovery of using online social networking sites positively affects We-Intention to use online social networking sites.

6: The level of maintaining interpersonal interconnectivity of using online social networking sites positively affects We-Intention to use online social networking sites.

7: The level of social enhancement of using online social networking sites positively affects We-Intention to use online social networking sites.

8: The level of entertainment value of using online social networking sites positively affects We-Intention to use online social networking sites.

Methodology:

- post online questionnaire to students group on facebook via invitation message, the data has captured by

the instructors when students submit the questionnaire in facebook

- the measures of the constructs were measured multi-item scales, it is more reliable and validation

Result(s):

totally 182 respondents, 68% female, 32% male, 75% young person (86% student )

using PLS structure model is shown as the result, 28 percent of the variation in We-Intention to use online social networking sites.

- Social presence is the most significant exogenous variables of We-Intention with a path coefficient of 0.23.
- Among the social influence factors, only group norms exhibits a significant impact on We-Intention with a path coefficient of 0.18.
- the five key values are critical factors using in social networking sites from the we- intention concept, including self-discovery, social enhancement, entertainment value, interpersonal connective, purposive value.

Summary of key points:

- the introduction of social networking website
- the benefit of university student using social networking website
- the definition and basic concept of social influence theory, social presence theory, uses and gratification paradigm and we-intention
- the research model is developed in we-intention theory which is determined by the factor of social influence, uses and gratification paradigm and social presence
- the background of facebook
- the methodology of data collection, online questionnaire
- the summarize of finding result using the measurement and structural model
- the finding result is approved that the online social network can improve students learning motivation

Context (how this article relates to other work in the field; how it ties in with key issues and findings by others):

Contribution

- explain the concept of We- intention is appropriate approach to study in social networking website for students
- identify the uses and gratification theory is an important framework to explain the social networking website provided communication and interaction functionality to students
- using traditional information system learning is single way, but using web2.0 application should be changed

learning attitude to group orientation

- the five values are strongly theory background to explain the reason of using social networking website, including purposive value, self-discovery, social enhancement, maintaining interpersonal connectivity, and entertainment value.
- identify the social presence theory is the most important factor to explain that students can use the social networking website to build up interpersonal relationship

### Strength

- provide the several factors to explain the reason of university students using the social networking website, including social influence, social presence and uses and gratification from We- intention concept
- the description of the social networking website is a powerful communication tool in the world, it can share knowledge and message more easily. the students can work together as well
- the research model is using partial least square to test the hypotheses and come up with the relationship model of psychometric properties.
- the description of students should increase the learning motivation when they use facebook, because of supporting in peer.

### Weakness

- the research objective is only facebook, it is very limitation and not a full picture, because the social networking website is so many different type of communication platforms, such as myspace, LineIn etc
- students do not have a good relationship if they join many groups in social networking website, it is always true but how to prove it, the reason has not be found in this paper
- no online questionnaire sample, how to prove the author has done it to come up with the finding result
- no any questionnaire statistic result, it is very difficult to identify that the finding result is validation
- in participant, there is the most part of student group, the problem is which type of students, it has not classified very clearly

### Significance (to the field):

in this research topic is discussed the reason of the university students use the facebook, there have introduces three types of theory to elaborate it. It is according to psychology and social relationship needs to explain how to change students learning strategic and improve their learning motivation.

the research problem is

1. why the university students build up the academic community in facebook
2. why students can increase learning motivation when using facebook
3. why students use facebook to build the social relationship more easily
4. what is effective of using facebook from students, they can increase their self-identification ability,

including personal image, good personal behavior, learning experience and model

#### The "We-intention"

theory : not only individual can perform for the part of work in the group act.

Findings : contribution the part of own work and group discussion to collaborate work together, easy to find out solution and not feel alone in studied way, there is answered the research problem no.2

#### The "social influence"

theory : individual behavior should be restricted by the social actor and identified self-contribution to build up the relationship with group members.

Findings : make decision to same topic inside the group, learning group decision making and co-operation with other people, there is answered the research problem no.3

#### The "social presence"

theory : the social networking website can be connected the group of people to enhance interaction via virtual community.

Findings : keep track of group members latest update and share information to the related of topic in group anytime, there is answered the research problem no.1

#### The "uses and gratification paradigm"

theory : people has determined to use the virtual community when they fulfill their psychological needs

Findings : using five key values to explain motivation for usage the facebook, there is answered the research problem no.4

#### Important Figures and/or Tables (brief description; page number):

- the research model is developed as presented in Fig. 1. We-Intention is determined by social influence factors, social presence, and factors from the uses and gratifications paradigm [p.1339]
- Fig. 2 show the results of the PLS structural model with the overall explanatory power, the estimated path coefficients and the associated t-values of the paths [p.1342]
- Table 2 shows that the squared root of AVE extracted for each construct, all AVE values are greater than the off-diagonal elements in the corresponding rows and column, demonstrating discriminant validity. [p.1341]

#### Other Comments:

- the result of findings should be provided some statistic data to prove that students has improved learning performance when they use the social networking website, such as academic result, performance of project

presentation. There has delivered the two different set of data to compare with whether students have used in the social networking website for learning improvement

- in this paper, it has the three types of theories to elaborate the topic of "why do students used facebook", but lack of examples or situations to present the theory work, there should be provided much more examples to support these theories

2.

Nowadays, the social networking website is very popular around the world. It is a communication tool to connect and interact with people via the internet, such as Facebook. Most of people use it to share their information every day, especially university students.

The university students can improve their learning effective outside the classroom when they build up the academic community on the social networking website. As it is involved more than one person to join this virtual community, there has introduced the three types of theory to research on the intentional social action which is included "We-intention", "social influence", "social presence" and address of uses and gratification paradigm. For the "We-intention" part, it is presented that the students contribute their own part working together to achieve the specification group goal. For the "social influence" part, it is presented that the students' behavior should be restricted by the social morality and common manner to build up the relationship with group members. In the "social presence" part, it is presented that the social networking website is a good communication medium and can link up with the group of student to enhance interaction when they have joined the specified virtual community. For the "uses and gratification paradigm" part, it is presented that it is a useful framework to identify five key values for using the virtual community, including self-discovery, social enhancement, entertainment value, interpersonal connective, purposive value. The students are very hopeful for making a good friendship and peer support during university life when they fulfill their psychological needs.

According to the research model, it is investigated to apply these three types of theory from the uses and gratification paradigm when the students can improve their learning passion to use a social networking website. There have some cases to show that how to prove it. The university students can join or create the academic community when they need and share their content in there, including document files, video clip, audio and instant message. Definitely, it is totally free of charge and every student can login to use it anytime when they have permission from the group manager. In addition, the students can propose their idea or comment to work together for each group member. It is integrated the knowledge and get a final conclusion in the specification academic community. Certainly, Facebook emphasizes the interpersonal involvement to communicate together in the virtual community platform. The students can create an online social space to enhance personal communication and interaction.

The result of the findings was conducted the online questionnaire to post on the number of student groups on Facebook, using the measurement and structural model to report the research model. As a result, this research is elaborated that the reason of Facebook has improved for students learning, motivation, the learning strategy would be changed more actively and group-oriented learning approach. On the other hand, the university students use Facebook, they can expand social relationship network and concern society event around them, it is more critical rather than learning in textbook knowledge.