

商业智能时代对中国高校教育管理的影响

The Influence of the Era of Business Intelligence on the Education Management of Universities in China

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Preface

Innovations in evolving ICT have allowed organizations, such as universities, to produce, gather, and distribute information that might not be achievable before. This, however, contributes to the proliferation of information and unparalleled difficulties in making the most of accessible data strategically and effectively. The study aims to identify the impact of business intelligence and education intelligence era on Chinese educational institutions. A detailed literature review is done to measure the current challenges faced by the educational institutions of China and the implication of business intelligence and education intelligence tools to gather the relevant data to cope with those challenges.

Nowadays, colleges and universities globally work in a very diverse and complex setting. The internationalization process and the fast growth of information communication technology have contributed not just to really tough rivalry between businesses but also between institutions. The educational institutions are also facing intense competition, and in order to identify the learning characteristics, needs, demands of the students, they are using the latest technological tools, such as Business Intelligence (BI), to collect student's data, analyze it and use it to make informed decisions. Business Intelligence is a technology-driven framework for data processing and enforceable information distribution that allows administrators, management, and owners to make better business decisions. Academic institutions are now concentrating significant effort not just on their competitive advantages-offering superior quality education, as well as on many other things, such as planning broad marketing initiatives to more people, developing and providing new enticing English-language bachelor and masters programs to enroll more international learners. Many educational institutions are using business intelligence in the world, and it has also changed the attitude of the Chinese. The study will analyze in detail how the business intelligence era is changing the way Chinese educational institutions used to work (Kabakchieva, 2015).

Currently, because of the accessibility of effective and inexpensive information systems, academic institutions acquire and manage vast quantities of specific data forms relating to their pupils, professors, and admin personnel the organization and management of academic and research activities. The input in the education industry now comes from two forms of learning systems: conventional face-to-face learning in the school and distance teaching. The data gained in the two kinds of sources varies in several aspects, such as the databases and information technology adopted, the data formats adopted, and the particular desired outcomes pursued. The collected data is then used at the time of admissions at universities or colleges to promote the offered programs to the target audience and understanding the demands of the existing and potential students. The collected data is usually stored in physical and electronic form. Business intelligence is a wide term, which also incorporates terms like big data and learning analytics that is widely used by educational institutions in the world.

Literature Review

Business Intelligence Technologies in Education System

Business Intelligence tools Could be Adopted by China's Education System

Adoption of Business Intelligence Technologies by Chinese Academic Institutions

Application of Information Communication Technologies by Educational Institutions

Artificial Intelligence-based Education in China

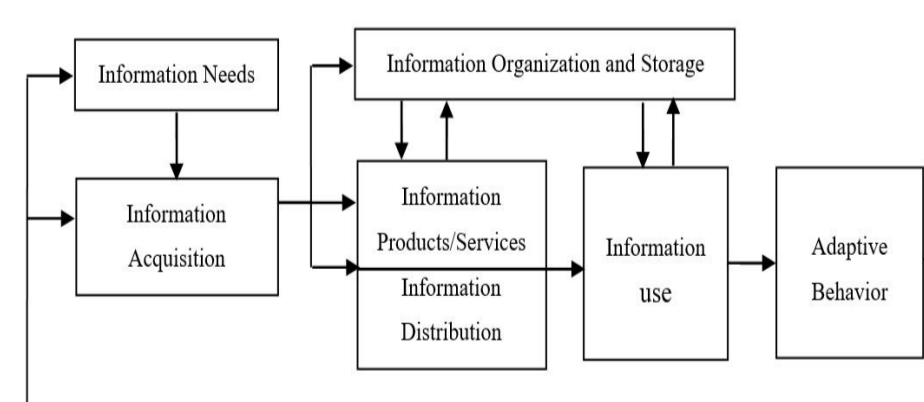


Figure 1 Business Intelligence Process model identified by (Choo 2002)

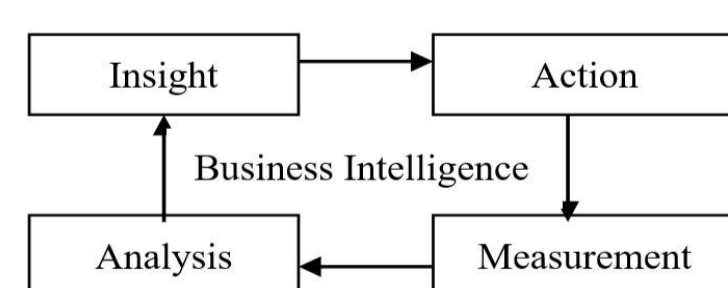


Figure 2 Business Intelligence process model of Microsoft

The common thing between the two models is the need for identification. Once the need is identifying, it would get easier to get the relevant data. BI is a continual mechanism that generates insightful information through the use of institutional data to make informed decisions. It is easier to find a process model that incorporates the use of business intelligence resources such as OLAP, storage server and data mining, etc., so that people cannot only recognize the BI process best in the case of knowledge management.

Methods

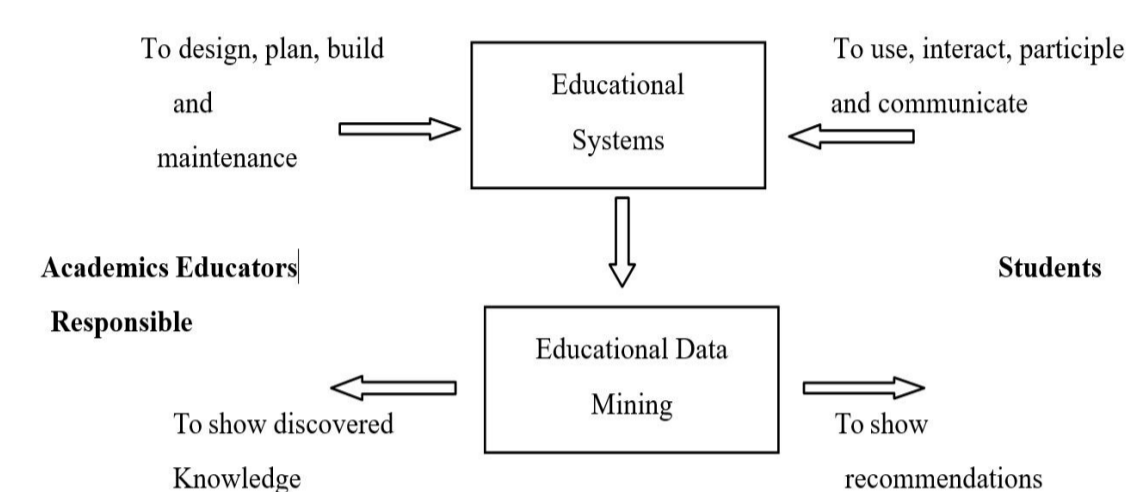
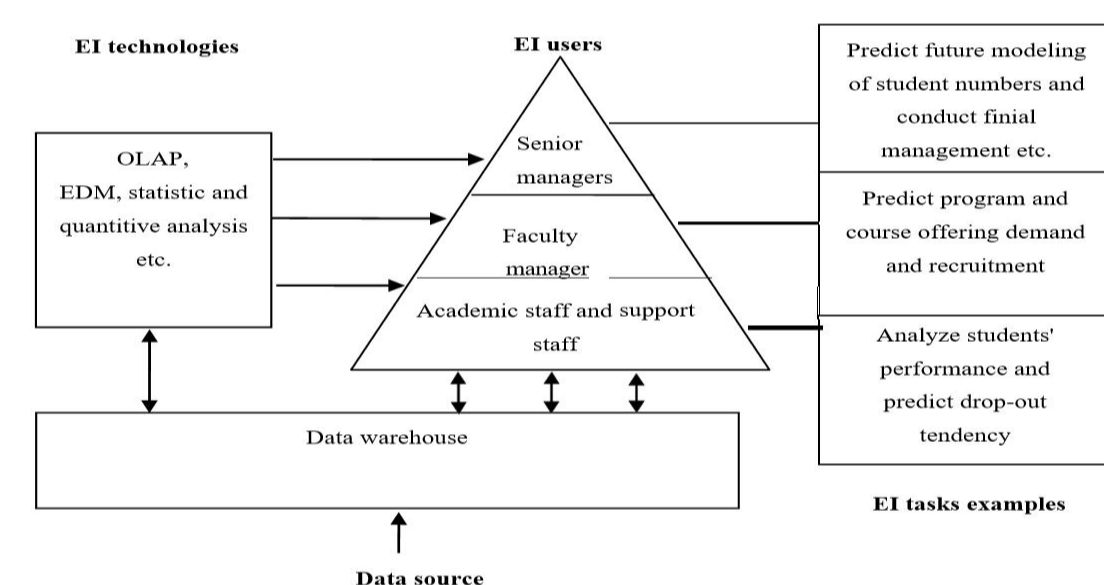


Figure 3 – EDM process by Romero and Ventura

Educational data mining refers to convert the academic data into meaningful information that could be used by the universities or institution's management to help the students and teachers in assessing the current performance of the students and evaluating the effectiveness of the teaching style.



The research conducted by Chen (2012) designed the questionnaire on the education intelligence in China. The questionnaire was consisting of four sections; the first sections were regarding the usefulness of education intelligence. The second section measured the easiness to use the education intelligence in the institutions, the third section was focusing on China's institutions' attitude towards using education intelligence, while the last section was designed to measure the behavioral intention of the educational institution in the adoption of education intelligence. The survey data was obtained from the university in Beijing, China

CONCLUSIONS

First of all, via a literature review of Business Intelligence and its implementation in Higher Education Institutions, it is established that existing academic information systems in HEIs collect a large quantity of data and information, but staff working for Higher Education Institutions could not find an efficient way to handle and leverage the data. Taking into consideration the advantages of BI, within many organizations, Business Intelligence is increasingly growing the action plan. The explanations for this are numerous and involve increasing awareness of the importance of guiding administrative, strategic planning with informed decisions based on facts, a willingness to 'benchmark' success against competitors or peer organizations, and the growing need to be able to more effectively target competitor. The literature results also show that information communication technology is also adopted by many Chinese higher education institutions.

Many Asian nations, especially China, concentrate their Information Communication Technologies (ICT) growth on three key fields: open and distance education, mixed learning, and general administration, where the e-learning industry comprises the first two fields. ICT has been widely applied to academic institutions in China over the past two decades.

Many universities in China have realized the importance of incorporating business intelligence or education intelligence in their education system to get more useful data that will help them in making informed decisions. The research also proved that there is no relationship between the staff's perception towards easiness of use of education intelligence and their intention to use it in the future. Advanced technologies could help academic institutions to improve their productivity and students' performance. The results show that the perceived easiness of the staff to use education intelligence positively affects the usefulness of the education intelligence, which indicates that if the awareness and easiness to attain the correct data to resolve the identified issue is high, then the more useful information could be generated from the data.

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