

MODULE BMSW4003: DIGITAL SKILLS AND RESEARCH METHODS

ASSIGNMENT 1

**TITLE- IDENTIFY AN
ORGANIZATION AND ANALYSE
HOW THIS ORGANIZATION USES
MODERN TECHNOLOGY TO
IMPROVE EFFICIENCY**

**GROUP PRESENTATION
LECTURER NAME:
TERRY WALCOTT**



GROUP MEMBERS

Alexandru Cardei Pantiru- (2009433)

Viorel Grigorita- (2009055)

Zoriana Fedorchuk- (2010315)

Sebastian Daniel Popescu- (2010782)

Table Contents	Page No
Introduction	1
Background of Facebook	2-3
The challenges Facebook encountered before the modern technologies	4-5
Insights to the Modern Technology Introduced by Facebook	6-8
The Impact of the Technology Introduced	9-11
Conclusion	12
References	13

Introduction

Technology can be viewed as a blessing for most of today's organisations. This is because modern technologies have largely changed the way an organisation functions now (Melissinos, 2018). However, the introduction of modern technologies has caused a paradigm shift in the overall operation of tech companies like Facebook.

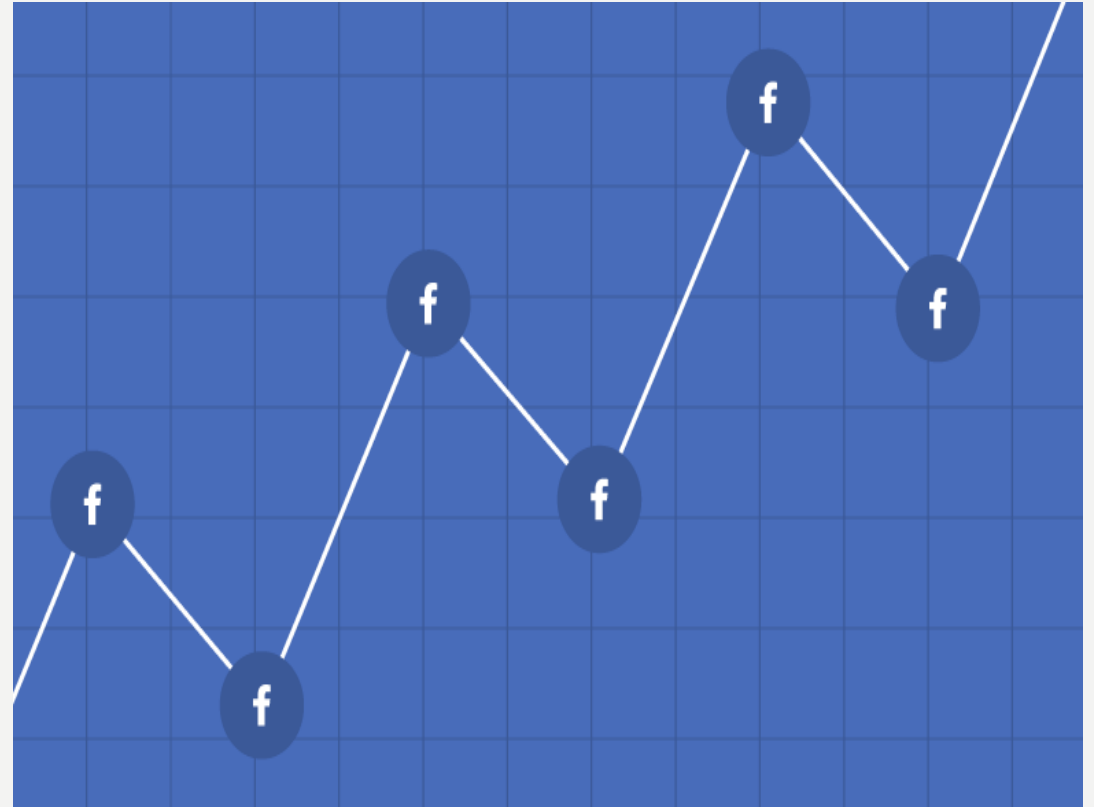
Background of Facebook

- launched Facebook in February 2004 with the name of "The facebook"
- Only the students with Harvard email addresses had access to the platform
- In 2005, it was renamed Facebook costing \$200,000



Background of Facebook; Cont'd

- In 2006, Facebook was opened to all
- Has around 2.7 billion users across the world
- Developed and implemented a range of modern technologies over time to improve its overall efficiency



The challenges Facebook encountered before the modern technologies

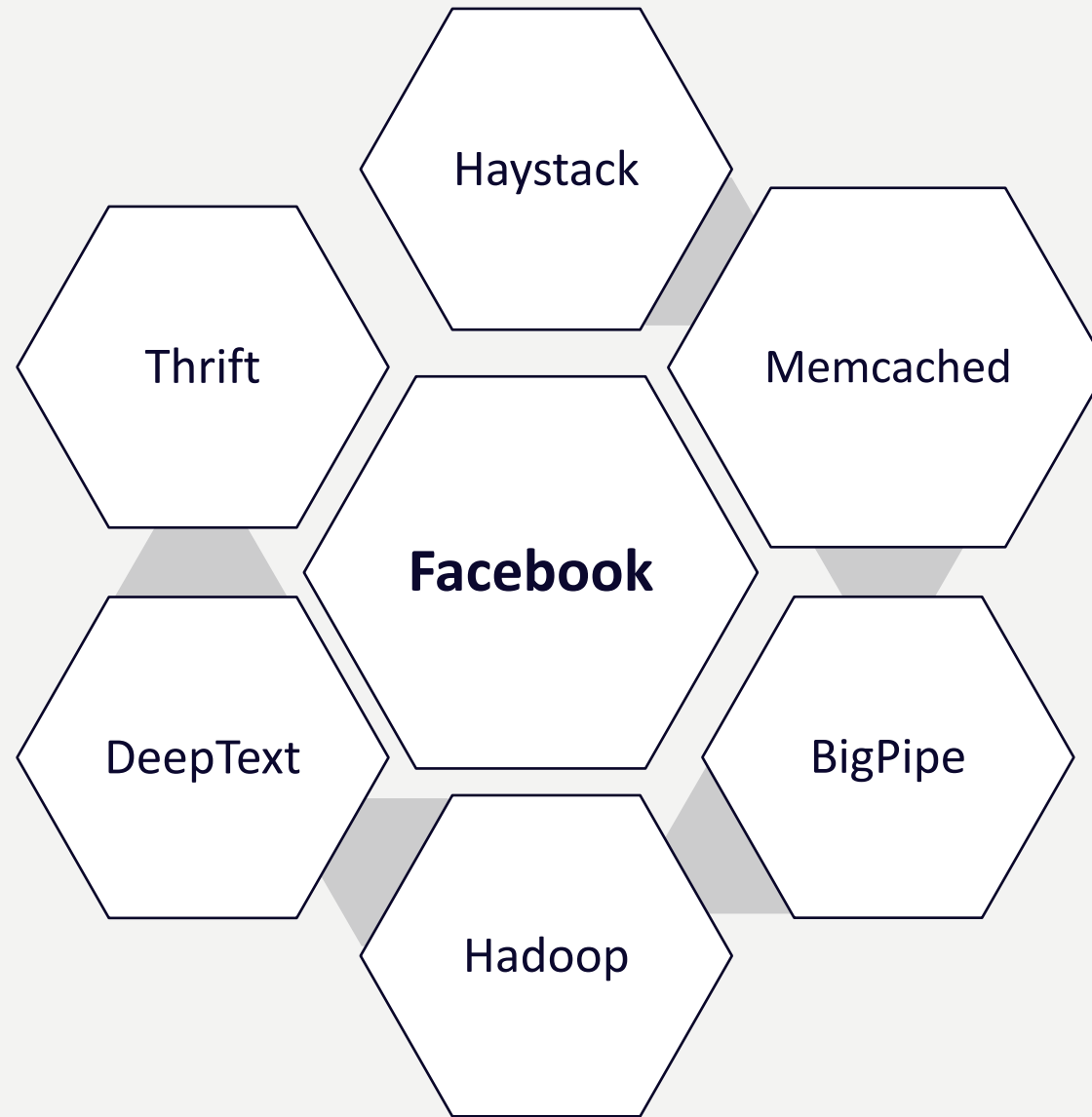
To continue smooth operation, Facebook has implemented a range of modern technologies over time such as Haystack, Hadoop, Machine Learning, and so on.



The challenges Facebook encountered before the modern technologies; Cont'd

- Not being able to efficiently store and retrieve millions of photos and videos uploaded by the users every day
- Struggling to provide quick services to the users on their command as a result of the slow database access
- Struggling to display each webpage in sections retrieving each window separately
- Being slow and inaccurate in analysing big data and providing the users with suggestions according to their preferences
- Not being able to understand and translate languages to keep the entire world connected

Insights to the Modern Technology Introduced by Facebook



Insights to the Modern Technology Introduced by Facebook; Cont'd

Haystack: Haystack is a high-performance storage device that Facebook has developed over time to address the challenge of storing millions of photos and videos uploaded on Facebook every day (Todd, 2020)

Memcached: Memcached can be viewed as a distributed memory caching system that is used by different tech companies to establish a caching layer between the MySQL and web server

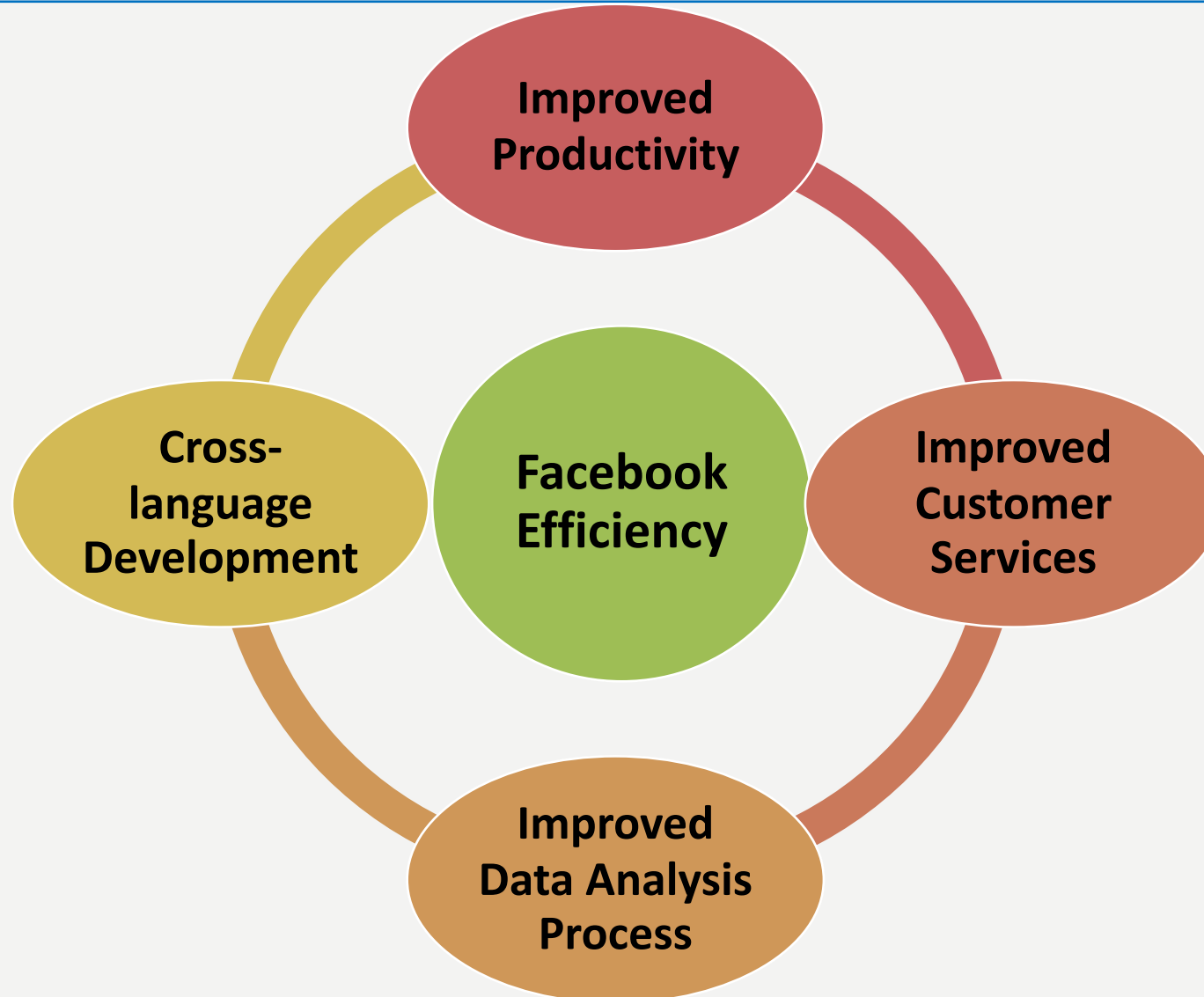
BigPipe: BigPipe, one of the in-house developed systems of Facebook, can be considered as a dynamic web page serving system. Facebook has developed it particularly to serve the web pages in sections through pagelets for optimal performance (Todd, 2020)

Insights to the Modern Technology Introduced by Facebook; Cont'd

Hadoop: Hadoop is considered as one of the most modern technologies that can help an organisation effectively and efficiently analyse a massive volume of data.

DeepText and Thrift: Machine learning and Thrift are two different technologies that help an organisation process and translate different languages which are necessary to maintain and support cross-language development.

The Impact of the Technology Introduced



The Impact of the Technology Introduced; Cont'd

Improved Productivity: As a result of the development and implementation of Haystack, the productivity of Facebook in terms of storing and retrieving data has increased to a large extent (Todd, 2020).

Improved Customer Services: The introduction of Memcached has largely helped the company improve the overall customer services by reducing the lag time between the MySQL and web server

The Impact of the Technology Introduced; Cont'd

Improved Data Analysis Process: Before the introduction of Hadoop, Facebook used to struggle in analysing the mass volume of data that it obtains and retrieves from the users.

Cross-language development: To provide services across the world, an organisation must develop a cross-language framework that can help to translate and understand different languages (Melissinos, 2018)

Conclusion

The case study provides us with a range of lessons about modern technology implemented by Facebook. Modern technologies largely help a business organisation to improve its overall productivity and efficiency in different ways. As Facebook provides its services across the world, it must ensure that it is providing its services effectively and efficiently. In this case, it must keep up developing and implementing modern technologies to improve its overall efficiency over time.

References

- About Facebook. 2020. *About Facebook*. [online] Available at: <<https://about.fb.com/>> [Accessed 9 November 2020].
- Guides, B. and Events, N., 2020. *Facebook 101: Ten Things You Need To Know About Facebook*. [online] Infoday.com. Available at: <<http://www.infoday.com/it/mar08/krivak.shtml>> [Accessed 11 November 2020].
- Melissinos, A., 2018. *Principles Of Modern Technology*. Cambridge, GBR: Cambridge University Press.
- pingdom.com. 2020. *Exploring The Technology Behind Facebook*. [online] Available at: <<https://www.pingdom.com/blog/the-technology-behind-facebook/>> [Accessed 10 November 2020].
- Sutherland, A., 2017. *Facebook*. London: Wayland.
- Todd, F., 2020. *Profiling The Technology Used By Facebook To Mark Its 15Th Birthday*. [online] NS Business. Available at: <<https://www.ns-businesshub.com/technology/technology-used-by-facebook/>> [Accessed 11 November 2020].
- Van Dijck, J., 2013. Facebook and the engineering of connectivity: A multi-layered approach to social media platforms. *Convergence*, 19(2), pp.141-155.