MOHAMMED SEDDIK BENYAHIA UNIVERSITY OF JIJEL

FACULTY OF EXACT SCIENCES AND COMPUTER SCIENCE

DEPARTMENT OF COMPUTER SCIENCE

Large Language Models & 6G Networks

Report

Academic Level:

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Abstract

This report explores the potential integration of Large Language Models (LLMs) into the development and enhancement of 6G networks. As 6G technologies aim to revolutionize global connectivity, LLMs, with their advanced processing and understanding of human language, could offer significant advantages in areas such as network optimization, communication protocols, and AI-driven automation. This report investigates the key aspects of LLMs, their capabilities, and the synergistic potential when paired with 6G. Furthermore, challenges and future opportunities are discussed, providing insight into the evolving landscape of these technologies.

Contents

1 Introduction

This section will introduce the topic, including a brief overview of LLMs and their potential in the context of 6G networks.

2 Background

2.1 What Are Large Language Models?

Define and explain the core concepts behind LLMs.

2.2 What Is 6G?

Overview of the upcoming 6G technology and its capabilities.

3 The Role of LLMs in 6G Networks

A detailed look at how LLMs can assist in 6G network development, from communication to optimization.

4 Current Research and Development

Examine current advancements in LLMs and 6G research.

5 Potential Applications of LLMs in 6G

Describe real-world applications where LLMs and 6G can complement each other.

6 Challenges and Opportunities

Discuss the hurdles and benefits of integrating LLMs with 6G.

7 The Future of LLMs and 6G

Speculate on how the relationship between these technologies may evolve.

8 Conclusion

Summarize the findings of the report and propose recommendations.

References

List your references here.