

Technologies and the Development of Encyclopedias

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Abstract:- Throughout the years encyclopedias have been used by scholars and students to further their studies and as a quick reference guide, the encyclopedia would not be possible without the invention of critical technologies that helped their spread and use, in this article we will demonstrate how these technologies helped this format and where it's going in the future.

I. INTRODUCTION

Encyclopedias are defined as a book or set of books giving information about all areas of knowledge or about different areas of one particular subject, usually arranged in alphabetical order; a similar collection of information in digital form [1]. These critical tools have long been used in academia by providing a massive set of articles that can be easily searched and referenced whenever needed. Digital encyclopedias like wikipedia.org are one of the most visited sites [2] in the internet which indicates that the demand for encyclopedias is higher than ever. The invention of the encyclopedia was marked with great technological breakthrough which we will explore in this article.

II. THE PRINTING PRESS

The printing press is any form of technology that applies pressure between an inked surface and a print medium (like paper). In this sense, it is a means of transferring ink from an inked surface and the medium.

It was an enormous improvement on previous methodologies, like transcribing by hand using a 'pen' and ink or brushing and rubbing repeatedly to achieve ink transfer[3].

Johannes Gutenberg (1393–1406) a German inventor is widely credited as the inventor of the printing press which was greatly enhanced and improved upon in successive years.

Some of the most notable printed encyclopedias were the: Encyclopédie in French, the Encyclopædia Britannica in English and the Brockhaus Enzyklopädie in German.

III. THE COMPACT DISC

During the early days of computing there was no easy and cost effective way to store large amounts of text and images which was needed in order to move the encyclopedia to the digital domain.

The invention of the standard compact disc revolutionized the way music, data, and later video were stored and distributed, marking a significant leap from analog to digital storage media. Developed jointly by Philips and Sony, the CD format was finalized in 1982. This collaboration not only unified the technical specifications for the digital audio disc but also ensured its widespread acceptance across different manufacturers and industries [4].

Digital encyclopedias started appearing on personal computers in the CD format and later on DVD and they made significant improvement in the quality and amount of images as well as the introduction of video and audio. It was also the first time you could search an encyclopedia by writing a word in the search bar greatly enhancing the way you could utilize the encyclopedia.

A prime example of CD-based encyclopedias was the Microsoft published Encarta program which was first published in 1993.

IV. THE INTERNET

The demand for an online-based encyclopedia occurred as soon as the internet appeared and Britannica was the first to introduce an online encyclopedia through a paid subscription in 1994.

In 2001, Wikipedia launched which popularized the concept of the free online encyclopedia with an easy to use interface which relies on volunteer contributors form around the world.

V. ARTIFICIAL INTELLIGENCE

Wikipedia contributors continue to debate how to harness the incredible power of AI tools and models without affecting the quality and integrity of their work.

As of May 2023, a Wikipedia policy on ChatGPT and similar large language models (LLMs) recommended that users who are unfamiliar with LLMs should avoid using them due to the risks for potential liabilities or copyright infringement.[5]

VI. CONCLUSION

The thirst for knowledge is a basic human trait and no matter what technological advancement or what medium it inhabits, people will gravitate towards the encyclopedia to satisfy their curiosities. On the other hand, there are also those unique individuals who need to satisfy another basic human need which is hunting and gathering different bits and pieces of information to form a wiki or an encyclopedia.

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