

## Children's search engines on the Internet: an analytical study

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Research - Summary

Received: 23.11.2023

Accepted: 29.01.2024

Published: 30.04.2024

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### Abstract

The study focused on children's search engines with the main objective of cataloging the available children's search engines on the Internet and evaluating their strengths and weaknesses. A survey and analytical method were employed to achieve this goal.

Key findings from the study include:

- There are seven search engines that meet more than 65% of the established standards, which is the minimum threshold for these engines to be considered standard-compliant.
- KidRex leads the pack, achieving the highest number of standard elements with an 83% match rate. Its superiority is attributed to its excellence in several aesthetic, regulatory, and technical aspects, particularly its simple search methods.

The study concluded with several recommendations, the most important being the need to adopt innovative ideas for building and developing children's search engines. These new developments should incorporate the advantages identified by the study while addressing and rectifying any identified problems and defects.

### Keywords

Children search engines

## **Study Problem**

The era when a single search engine could meet all of a user's research needs has passed. With the rapid growth of the Internet, there has been an increase in specialization and diversification in search functions. This evolution has led to the emergence of new types of search engines designed to serve specific segments of society, including children's search engines. This study examines these specialized engines to identify the safest and most effective options for children.

## **Importance of the Study**

This study is particularly important due to its direct impact on children. Key points highlighting the significance of this research include:

1. The study provides parents with a curated list of the most important search engines that offer features such as Arabic language support.
2. It explores the strengths and weaknesses of children's search engines available on the Internet, providing valuable insights for the development of an Arabic search engine for children.

## **Objectives of the Study**

The study aims to achieve the following objectives:

1. Inventory and review the most important search engines that provide services to children.
2. Explore the strengths and weaknesses of children's search engines available on the Internet.

## **Study Questions**

This study seeks to answer the following questions:

1. What are the most important search engines that provide services to children?
2. What are the strengths of children's search engines available on the Internet?
3. What are the weaknesses of children's search engines available on the Internet?

## Study Sample

Many search tools for children are available on the Internet. However, this study focuses solely on search engines, as they are considered among the most important and widely used tools by children. The study collected and analyzed various children's search engines to identify the best options suitable for Arab children, as detailed in Table No. (1).

| Tool                | URL   |
|---------------------|---|
| Ask Kids            | <a href="https://askkids.com.cutestat.com">https://askkids.com.cutestat.com</a>   |
| for kids Quintura   | <a href="https://quinturakids.com.cutestat.com">https://quinturakids.com.cutestat.com</a>   |
| Kids Web            | <a href="https://web-japan.org/kidsweb/">https://web-japan.org/kidsweb/</a>   |
| Kiddle              | <a href="https://www.kiddle.co/">https://www.kiddle.co/</a>   |
| Kids click          | <a href="https://kidsclick.org">https://kidsclick.org</a>   |
| KidRex              | <a href="https://www.alarms.org/kidrex/">https://www.alarms.org/kidrex/</a>   |
| Kids.Net.Au         | <a href="http://www.kids.net.au">http://www.kids.net.au</a>   |
| Duckduckgo          | <a href="https://duckduckgo.com/">https://duckduckgo.com/</a>   |
| Kid's Search Engine | <a href="https://www.kidssearch.com/">https://www.kidssearch.com/</a>   |
| sweet search        | <a href="https://www.sweetsearch.com/">https://www.sweetsearch.com/</a>   |
| kids Cyber sleuth   | <a href="https://cybersleuth-kids.com/">https://cybersleuth-kids.com/</a>   |
| Ivy Coloring Page   | <a href="http://www.ivyjoy.com/coloring/search.html">http://www.ivyjoy.com/coloring/search.html</a>   |
| Gogooligans         | <a href="https://www.lures.info/childrens_search/gogooligans.html">https://www.lures.info/childrens_search/gogooligans.html</a>                 |
| Kidzsearch          | <a href="https://www.kidzsearch.com">https://www.kidzsearch.com</a>   |
| kids search Safe    | <a href="https://www.safesearchkids.com/kids-search-engines/#.XcG49ZhR3IU">https://www.safesearchkids.com/kids-search-engines/#.XcG49ZhR3IU</a> |

## Study Methodology and Data Collection Tools

This study employs a descriptive and analytical approach. This methodology is used to identify the technical, administrative, and research characteristics of children's search engines on the Internet. It examines the strengths and weaknesses of each engine separately, using analysis and description through experimentation to validate these points.

## Results

The study examined children's search engines on the Internet from an analytical perspective and concluded with several findings and recommendations:

1. **Aesthetic Specifications:** The top three search engines that achieve the highest aesthetic standards are Kiddle, KidsClick, and KidRex. These engines excel in interface design, color consistency, inclusion of images and animations, engaging visual effects, user-friendly button sizes, and support for on-screen keyboards to assist children in typing in the search box.
2. **Administrative Specifications:** Most children's search engines meet the administrative criteria, such as having names that indicate their function, easy pronunciation and memorization, brevity, declared responsible authorities, and clear introductions on the main page. Exceptions include CyberSleuth Kids, Ivy Coloring Page, and Gogooligans, which have long and difficult-to-pronounce names.
3. **Control Measures:** Nearly half of the analyzed children's search engines do not implement sufficient control measures to prevent access to unwanted content.
4. **Technical Specifications:** Many children's search engines, notably KidRex, Kid's Search Engine, and Kidzsearch, meet the technical requirements for simple, advanced, and sophisticated search applications.
5. **Technical Compatibility:** Most children's search engines in the study are compatible with different web browsers, have fast loading times, are stable, display well on various screens, and are compatible with smartphones.
6. **Display and Retrieval Standards:** A significant number of children's search engines, including DuckDuckGo and Kids Web, are concerned with display and retrieval standards, such as controlling displayed results, display language, content type, evaluating retrieved results, and distinguishing search terms.
7. **Standard Achievement:** Seven search engines exceed 65% in meeting the minimum standard criteria. KidRex leads with an 83% match rate, excelling in aesthetic, regulatory, and technical aspects with simple, sophisticated, and advanced search methods.

## Recommendations

Based on the study's findings, the following recommendations are proposed:

1. **Adopt Specialized Search Engines for Children:** Replace general search engines with child-specific ones. The recommended engines, based on their superiority in various aspects, are KidRex, followed by Kids.Net.Au, DuckDuckGo, Safe Search, Kidzsearch, Safe Search Kids, and Kiddle.
2. **Regulate Internet Usage Times:** Internet use should be limited to daylight hours, avoiding late-night usage due to health risks. Usage should occur in visible and monitored locations, preferably on desktop computers for easier control and to prevent access to prohibited sites, unlike smartphones.
3. **Educate Children on Search Engines:** Teach children the difference between general and children's search engines, allowing them to explore both types while highlighting the advantages of children's search engines.
4. **Government Involvement:** Recommend that the Ministry of Communications and Information Technology adopt new ideas for developing children's search engines, incorporating the advantages identified in the study and addressing any problems and defects.