УДК 347.081(043.2)

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THE EVOLUTION OF CYBERCRIME LEGISLATION

The fast development of digital technology has fueled the growth of cybercrimes such as hacking, phishing, and online fraud, posing new problems to judicial systems around the world. This article analyzes the evolution of cybercrime legislation in several jurisdictions, with a focus on how laws are changing to reflect the complexities of cyber threats in a linked digital landscape. This study uses a comparative analysis to identify major legislative developments across North America, Europe, Asia, and the rest of the developing world.

The study identifies comparable legislative frameworks, such as criminalizing unauthorized access to computer systems, as well as variations in approaches to penalties, jurisdiction, and enforcement roles. The paper goes further into the effectiveness of these laws in discouraging cybercrime, the difficulty of cross-border enforcement, and the delicate balance between crime prevention and individual privacy rights.

The study's goal is to provide insights into the creation of strong legal frameworks that can keep up with the ever-changing nature of cyber risks by highlighting new trends and best practices.

This analysis not only throws light on present legislative measures but also explores the implications for future policymaking in cybercrime prevention and punishment.

UDC 354.421.44(043.2)

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THE ROLE OF INFORMATION RETRIEVAL SYSTEMS IN MODERN ACCESS TO INFORMATION

In an information-saturated world, the ability to access information quickly

and efficiently has become a key factor for individuals and enterprises. It is in this context that the role of Information Retrieval Systems (IRS) should be considered, as they have become not only technological tools but a veritable bridge to the world of knowledge. They solve the tasks of collecting, organizing, and rapidly searching for information, making it accessible to a wide range of users. In this context, it is worth examining how Information Retrieval Systems are transforming the process of obtaining information and how they influence our way of perceiving, processing, and utilizing knowledge in the modern world.

Search mechanisms in an IRS (information retrieval system) are a system that provides search and selection of the necessary data in a special database with descriptions of information sources (index) based on an information retrieval language and corresponding search rules.

Search engines include three main components:

● A web page with a search engine that acts as an interface for organizing interaction with the database.

● A database where information collected by special programs of the search engine is stored. The presence of databases explains the high speed of displaying search results on the search engine page.

● Search robots (Robots), spiders (Spiders), or worms (Worms) - special programs that automatically periodically "visit" websites, collect information about the content of pages, i.e., index them and fill the databases of the search engine [1].

The main purpose of a search engine is to help people search for and find information. Search engines are designed to provide people with the right information based on a set of criteria, such as quality and relevance.

Web page and website providers use search engines to make money and collect data, such as click data, about those who are searching. These are secondary goals that require users to be confident that the content they receive on the SERP is sufficient for interaction. Users must see the information they receive as accurate.

User trust can be earned in various ways, including:

● Organic results. Unpaid regular results are considered more reliable than paid advertising results.

● Authority. Google aims to establish the authority of a web page to identify it as a source of truthful information.

● Privacy. DuckDuckGo is a search engine that uses privacy protection to establish trust. It protects users' privacy and prevents distortion of search results that may arise from using personal information to target users or place them in restricted search categories known as filter bubbles.

Search engines personalize results based on digital profiles of searchers created from user data. User data is collected from the program or device through which the user accesses the search engine.

Collected user data includes the following:

- search history
- date and time of search
- location information
- audio data
- user identifier
- device identification IP address
- device diagnostic data
- contact lists
- purchase history [2].

Cookies are used to track web browsing history and other data. These are small text files sent from the websites a user visits to their web browser. Search engines use cookies to track user settings and personalize results and advertising. They can remember settings such as passwords, language preferences, content filters, number of results per page, and session information.

Using private browsing or incognito browsing mode protects users from tracking, but only at the device level. Search history and other information accumulated during the search are not stored and are deleted after the search session. However, Internet service providers, employers, and owners of visited website domains can track digital information left during the search [3].

Search engines and the companies that develop them are likely to use new technologies to improve the accuracy, relevance, and quality of the answers provided by search engines. They will also use advanced technologies such as artificial intelligence to improve the user experience in the future. For example, a user may one day be able to upload an image of a computer to Google and ask, "Is this a good computer for gaming?" and receive a thoughtful answer with nuances.

Google will likely continue to hold the majority of the search market share. With this in mind, SEO companies can expect Google to periodically update its core search engine algorithm. Google does this to prevent these companies from optimizing content for a specific algorithm.

However, in the future, there may be more niche engines that provide specificity and privacy that many users feel Google lacks. Users may gravitate towards search tools that provide enhanced privacy or better quality by indexing only a portion of the Internet.

Some experts also believe that the use of search engines is decreasing, as more information will be searched for in other applications and social networks such as Facebook, TikTok, and LinkedIn in the future.

References

1. Ситнік Б.Т. Основи інформаційних систем і технологій: навч. посібник, Харків: УкрДУЗТ, 2019. 175 с.

2. Сікора О.В., Вдовичин Т.Я., Когут У.П. Технології програмування інформаційних систем. *Таврійський науковий вісник*. Серія: Технічні науки.

2022. № 2. С. 10–17. URL: https://doi.org/10.32851/tnv-tech.2022.2.2.

3. Кузьмін В.О., Яцишин Т.Я. Проектування та реалізація інформаційно-пошукової системи «Випускник». *Український журнал інформаційних технологій*. 2019, т. 1, № 1. С. 46–51.

UDC 341.1(477)(043.2)

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TECHNOLOGIES AND LEGAL CHALLENGES OF CONTEMPORARY ARMED CONFLICT

After the World War II, adoption of the new international norms significantly decreased the war statistics, however, in recent years, development of technologies, which was further accelerated by the pandemic, changed the mentioned statistics, to the extent that new technologies are actively used in war. Unfortunately, preventive and/or prohibitive international norms do not exist, therefore, we do not have the practice of regulating them. Paucity of regulative norms and the absence of proper literature in this field underscores the relevance of this topic. The use of new technologies can lead to violations of the principles of international law and human rights, which requires the creation of preventive mechanisms within the framework of international law.

The relevance of the topic is also determined by the war situation in the world, which reminds us that against the backdrop of challenges in international law, there is a gap in terms of illegal integration of technologies in contemporary armed conflicts, which, as a result, leads to a breach of human rights and violation of the norms of both the Geneva Convention and the European Convention on Human Rights.

In the article, the research was carried out using the comparative-legal method in order to present the relationship between international and national legal norms. Also, we will use the normative method to emphasize the need of introduction of new norms to regulate the problem.

The aim of the paper is to research the relationship between IHL, IHRL and national law norms, and to give recommendations about the prevention of using technologies in contemporary armed conflicts.