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## Electronic Legal Databases in context to Connectors/ Symbols/ Command used in Legal Research: A comparative Study

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# Use of Connectors, Operators and Symbols in selected Electronic Legal Databases: A comparative Study

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## ABSTRACT

In the present state of fear and anxiety due to this pandemic outbreak, the life of humans has an abnormal impact of it. The whole world is facing this crisis wherein the libraries belonging to the service community are continuously offering resources, working on additional opportunities and advancing towards collaborative information dissemination 'virtually'. Embracing this digital world, the libraries have become the hope from hardships for everyone. This study aims to be a vital source for any legal researcher, student or practitioner along with librarians in the present digital age and ascertains a tabular comparison of connectors/symbols/operators used in prominent electronic databases which are worthwhile. The present study focuses on the introduction to legal research, its purposes need and importance. This research paper is intended to support in Legal Research as a proper research strategy which plays an important factor in legal research. There is a detailed discussion of the historical development of different electronic databases as well. This guide will prove to a quick reference and will bring out a clarity to refine the search strings used during the exploration through the prominent Legal databases i.e. Lexis Advance, Westlaw, HeinOnline, Manupatra and SCC Online. As these databases are huge set of knowledge and resource, to assimilate and reach to the scrutinized outcome during the legal research the comparison of connectors, symbols and operators given in the study will be extensively useful by the researchers to get the desired outcome all through the search attempts.

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**Keywords** – Legal Research, Search Strings, Legal Databases, Electronic Databases, Lexis Advance, Westlaw, HeinOnline, Manupatra, SCC Online

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## **Introduction**

Legal research is perhaps the easiest and difficult to perform in the present society of digital citizens. New technologies are penetrating in the present social order. To gain the required competencies, legal researcher has to balance between print and electronic sources to complete the quest of search. Developing the competencies of law, and identification of legal materials constitutes legal expertise to complete legal research. According to Yaqin, Anwarul Legal research refers to any systematic study of legal rules, principles, concepts, theories, cases etc. Legal research can be taken up for a variety of purposes pertaining to the objectives behind it.

Legal research is that branch of knowledge which deals with principals of law & legal institutions. Legal research studies the relationship between the world of law and the world the law purports to govern. Over the centuries, there has enormous growth in all emanations of the legal system. With the increasing amount of legislation and litigation the sources of law have also intensely increased. Libraries serving the courts, judiciary, academic law institutions or law colleges have also experienced profound changes over the decades. The purview of researching in legal domain the pre requisite of statutory research along with common law are associated to each other. The content to be delivered should formulate an interlocking hierarchies of precedence and jurisdiction.

From Academia to Practitioner the legal researchers need to carry their research for varied reasons. The purpose could be to identify the sources of law applicable to understand a legal problem, to find the solution to the problem or it could be to conduct the factual research in a most cost effective manner. According to Bouchoux, Deborah E, it is important for a legal researcher to know how and when to use the print resources and the electronic resources efficiently and effectively to find the best answer to the research question/s. In spite of proliferation of the new technologies the law libraries provide lawyers with all sort of research assistance and information resources pertinent to the research queries. Law library houses different sources of legal rules and numerous material that contain sources of law. In this digital age, with the dramatic change the law libraries manifest as a service oriented center for the legal information. There has been tremendous increase in the number of Law schools however the need of law library and law librarians is yet to be felt.

According to Nuel-Jean Chidi Okoye (2019) Law library is a service – oriented center for legal information. Law library provides different type of legal material in different formats to satisfy the needs of legal information of the law professionals, law students or users of the law library.

Gusau (2017) stated that an arrangement that make available special type of legal materials for its users like judicial officers, court officials, law scholars and students, law officers and other law related bodies is a law library. Miyetti Law Journal (2019) further, to serve the special research needs of legal practitioners, researchers, academic scholars or students is the important role of law library.

Legal research is an important skill for the lawyers. It is important for a legal Practitioner to hone the skills to use a combined form of conventional and electronic resources. With revolutionized access of the electronic database supporting the legal research the research methods, techniques and available databases have also undergone numerous improvisations and expansion over the years. There are many prominent databases available that simplifies the legal research. A database is a searchable set of vast available knowledge managed by the service providers for the legal professionals for the powerful searching. With the advent of tools of research in electronic form the vast amount of information like cases, statutes, acts, judgements etc. are now on fingertips available 24 \* 7 for the researchers.

The present study identifies the prominent Legal database which are available online for the seamless access of legal information for the law professionals. The study is an outcome of sincere efforts to bring out a tabular form of comparison of connectors, operators and symbols used in different Electronic Legal databases. These resources are grouped with organized set of information and the salient features of the database gives an extra edge to attract more attention of researchers in the field of law.

### **Historical development of Electronic Legal Databases**

In 1960 the University of Pittsburg (USA) came with a model of electronic library and later in 1965 Ohio State Bar Association grouped with Data Corporation grouped towards developing a basic legal research system called OBAR (Ohio Bar Automated Research). This system could perform very basic Boolean search only with AND, OR and NOT. In addition, work done by OBAR resulted in the genesis of the services like Lexis and Westlaw close to 1970s.

The Law commission of India in 1988 took computerization of legal literature as of high priority due to wastage in collecting the documents of same subjects. In 1991 NIC i.e. National Information Centre to connect Supreme Court and High Courts conceptualized the two systems known to be COURTNIC and JUDIS<sup>18</sup>. Gradually with more developments over the time different legal databases offering Computerized Legal Research were established through

various organization. Hence the progression of Electronic databases covering the Indian content conceptualized with AIR Infotech, Tax Online, Taxmann, SCC Online, Manupatra etc.

In the present days, every individual depend on the information communication technology (Munshi, 2015)<sup>12</sup>. According to Nagpal, Ritu and Radhakrishnan, N (2019)<sup>13</sup> with the growth and development, the libraries today offer uninterrupted services to the users from print to digital the users. The transition has offered a diverse choice of access to the users. The progression in terms of digitalization has provided adequate amount of support and expansion to the knowledge of not only librarians but also to the users for timely, accurate and real time access to the resources.

### **Legal Research: The Present Scenario**

In the current information age, the language and text has rapidly changed. There has been strides of expansion of electronic legal databases over the years. The use of computer or online system of search in legal information is now a matter of prime necessity legal professionals. With the development of electronic version of legal literature offering all types of flexible search options such databases have become an eminent contributor of the legal research. Williams, Martha E. in the study on ‘Electronic Databases’ has clearly summarized the need of electronic databases in the present scenario. The study corresponded the online availability of the world’s published literature and various types of information. Presenting with combination of artificial intelligence and user friendliness these Online retrieval systems offer various techniques, front ends and gateways for easy and quick information retrieval.

Presently, the nation and the world is engulfed with fear and anxiety as the COVID-19 pandemic is making giant waves of contagious spread. The World Health Organization has also declared COVID – 19 a pandemic, banning the active life of humans. The life has been completely locked. Not only this the disease has completely shattered the whole world, but with the sudden closure of Educational institutions like universities, colleges and other higher educational institutions there has been a prominent growth in adoption for online teaching and learning. Considering this crisis moments, the use of electronic databases with the latest technological developments have appeared to be presenting a big bag full of opportunities with more sophisticated and flexibility and proving it to be the only solution to the educationists, researchers, scholars etc.

The electronic resources or the databases particularly, have been rapidly adopted in all the academic spheres, though the behavior or the conduct to pursue the research practices differs according to the discipline. Ibrahim (2004), Borrego et al. (2007), Sharma (2009), Omotayo

(2010), Thanuskodi (2010) have revealed in their research that e- journals were the mostly used resource among other electronic resources. According to the Hadagali et al. (2012) the information content in e- resources is better than that of print versions and most of the users' access e- resources to search bibliographical information. Zaid (2008) giving his study on 'Challenges Associated with Cataloguing Electronic Resources in Selected University Libraries in Southwest Nigeria' clearly quoted that 'the extent of electronic resources uploaded regularly is actually posing the world with unprecedented challenges in terms of traditional responsibility to organize, provide access to and preserve information'. Through the expanse of exploration, the researcher has mentioned the importance of organised set of Electronic resources and the training to handle these resources is the requisite in the present time. Sadanand (2012) indicated in his study conducted on the use of electronic journals by the users of University of Pune into which he stated that electronic journals are really helpful with better accessibility which further assists in analyzing the suitable references.

Accessing the reliable information which has undergone the thoughtful scrutiny, the electronic resources are what the libraries and service providers are offering. Therefore, the available literature related to the use of electronic resources including the electronic legal databases is the genesis of the present study. To understand and to support in Legal Research as a proper research strategy and pre-research planning and to identify it as an eminent factor in legal research this study is attributed to substantiate as a source of information. In a methodical and explicit form, the study continues throughout the extent to refine the search strings used over the length and breadth of the prominent Legal databases i.e. Lexis Advance, Westlaw, HeinOnline, Manupatra and SCC Online and builds up a knowledge base for the community for the greater level of understanding and observations.

### **Scope of the study**

- The study is limited to the five major Legal databases i.e. Lexis Advance, Westlaw, HeinOnline, Manupatra and SCC Online
- The study presents a comparison of the Connectors, symbols, operators in a tabular form which will direct and support as a reference tool for the upcoming researchers
- The study aims to provide and articulate the use of Boolean operators, various symbols and connectors to formulate a proper syntax for researching and further narrowing down the search operation for the researcher to reach to the desired result.
- The study includes description, content coverage, features and also the historic development of the Electronic Legal Database which are very known to be the best discovery tools in legal research for National and International content.

## **Objectives of the study**

1. To find out the prominent commercial online legal databases which provide a comprehensive and exhaustive array of resources
2. Examine the role of legal databases and their extent of coverage
3. To analyse and compare the various connectors, operators, symbols used during the process of legal research in selected databases

## **Significance of the study**

The study is a reflective introduction of prominent commercial online legal databases which provide a comprehensive and exhaustive array of resources to help the researchers for legal research. The role of the study is to present a comparison between the various connectors, operators, symbols used during the process of legal research. The study emphasizes on the role of legal databases and their extent of coverage. The study demonstrates a clarity to frame search strings and further to harvest the desired results from the millions and millions of documents available on these huge Electronic Legal Databases. The study in addition to the comparison also demonstrates the development and overview of Electronic Legal Databases.

## **Methodology**

During the in depth study of different electronic databases, the researcher has identified that there is no such study which has taken place in past which offers a clear presentation of Connectors, symbols, operators used in the Electronic databases. The process of identifying different data points were analyzed and it has proven to be advantageous for the researcher to be part of team of Jindal Global Law Library. The research outcome is based on descriptive research strategy by comparing the diverse Connectors, symbols, operators in a tabular form with the help of literature available. In support to the deep insight, the Thematic analysis has provided researcher to perceive and construct a search string by using individual/combination of Connectors, symbols, operators. The study further indicates the use of legal databases to formulate a proper syntax with the help of examples and supports in producing the desired outcome from the huge set of legal documents available in the Electronic databases.

## **Statement of Problem**

Today's legal researchers are expected to know how and when to use print and electronic sources. Perhaps the fundamental step is to identify the fact, figures and understand

the analysis of various legal documents that gives rise to research in legal domain. The legal exploration relies on the purpose to find legal documents which aids in finding a solution to a legal problem. The key to effective legal research is to develop a good research tactic by following an effective approach. This research work will be helpful to understand the different Connectors/ Symbols/ Command used in Legal Research. There are giant databases available and are subscribed by the Law Libraries as well. However, to use and explore these databases can only benefit and pitching the right result if done while using proper search strategy. The study brings out a road map to frame a search string in the different electronic databases to achieve the desired outcome. The study works as ready reckoner for the researcher working and exploring the prominent legal databases by providing a comparison of different commands, symbols and connectors.

### **Electronic legal Databases**

Today the law libraries are handling the needs of legal community by providing a rapid access to the resources which are available through electronic delivery. The improved access and the provision to operate the resources remotely has authenticated the access beyond the limited area of law libraries. While deploying the various search techniques the vast amount of information can be explored in an exhaustive manner. The list of Legal Research Databases is given in Table 1.

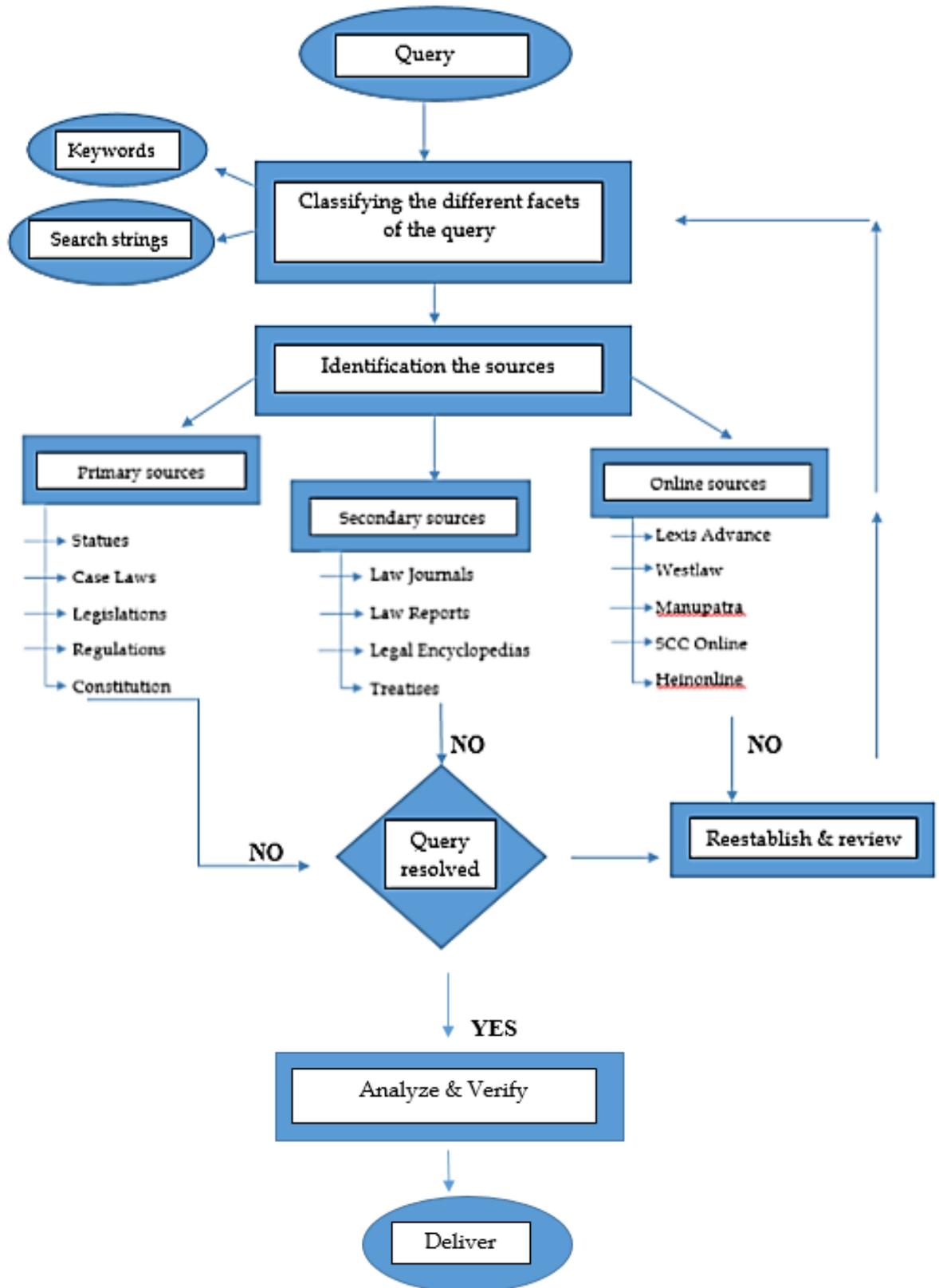
Table 1 List of Legal Research Database

<b>S.no.</b>	<b>Legal Research Database</b>
1	Lexis Advance
2	Westlaw
3	HeinOnline
4	Manupatra
5	SCC Online

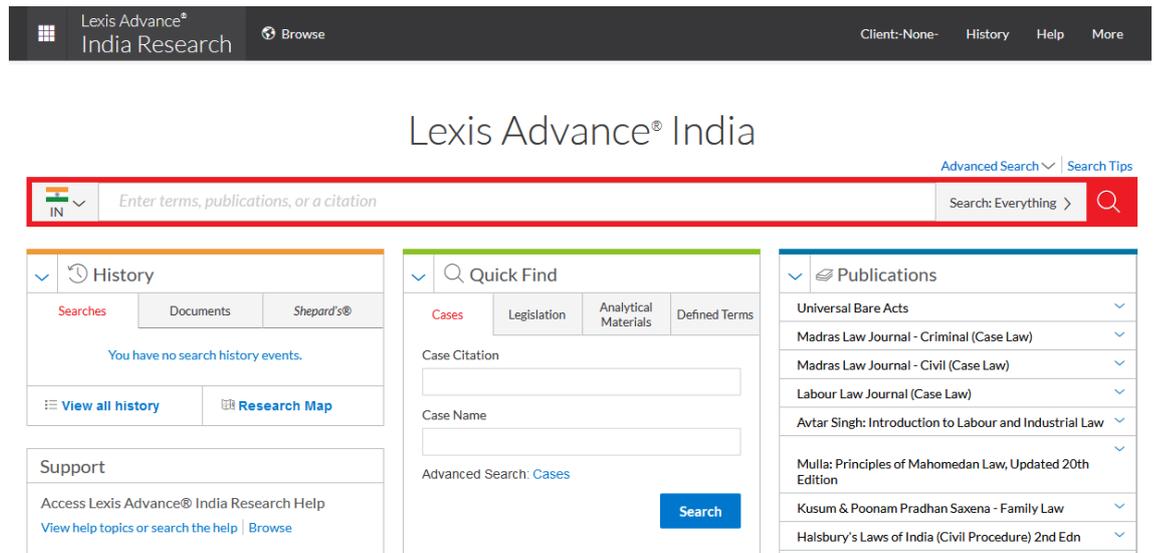
To comprehend it further it is important to understand the “Synthesizing data points in the Legal Community” in the flow chart given below.

Figure no. 1

### Synthesizing data points in Legal Research



## 1. Lexis Advance



Source: Homepage Lexis Advance – Legal Research Database

LexisNexis now known as Lexis Advance is one of the largest and most comprehensive information retrieval service for the legal professionals. It is one of the leading contributor of national and international content enabled for the group dealing with all divisions and subdivisions of law. In alliance with Information Technology and advance Web Technologies it offers a wide access across the globe. It provides access to the billions of searchable documents with a combination of many features with refinements. It is easy to use and serves the end users with in knowledge intensive pattern.

Dating back in 19th Century LexisNexis has been a pioneer for assisting the legal information search retrieval. Touching on to the Historical Milestones. Henry Butterworth founded the company in 1818. Passing various landmark in 1873 Shepard's founded in Chicago and eventually became a part of LexisNexis. Information network kept growing with assisting in data driven environment in 1970 with the introduction 1200 baud modems launch. This began an era of high speed data transmission. The year 1980 witnessed the introduction of almost a million LexisNexis user ID were issued and company also acquired the Michie Company and the legal publishers of state coded and statutes. As technology propelled in 1973 the company introduced a legal research service that revolutionized the way to conduct the research and analysis for legal professionals. Later in 1997, first Web based service for legal profession in US was introduced hence, with the growing number of users of internet the legal material was made available to more than 50 million customers to access. The

21st century observed the massive development in terms of usage, technology and coverage. A strategic business called the Risk & Information Analytics Group was launched to create solutions to verify identity, predict and manage risk, and support law enforcement and homeland security initiatives. Acquiring CourtLink Corporation helped legal professionals to gain insight into the litigation history of a company, attorney experience on a particular nature or suit, or map out federal litigation trends. Agreeing to be merged as LexisNexis Canada, LexisNexis Butterworths Canada and Quicklaw Inc offered leading online legal research service. Soon in the coming years with enhanced functionality, advanced taxonomy and more seamless searching and linking LexisNexis, came up as global technology platform for online products around the world covering its users all across from United States, Europe, Asia Pacific, Canada and Latin America. The year 2005 viewed the company's first Chinese and Japanese language online. With the strategy to offer the innovative products and services LexisNexis are known to the pioneers of the field.

The database allows to explore the content with advance search options as well. The most relevant will appear in the results which are highlighted in different colours. The search term map offers a better visualization. The Shepard's Citation service is one unique feature for the research to assess the search results as to analyze the subsequent treatment at a glance.

## 2. Westlaw

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Source: Homepage of Westlaw – Legal Research Database

A subscription based online legal database Westlaw India is a product of Thomson Reuters. It is one of the prominent database offering combination of Indian and International content in a highly comprehensive manner with a convenient interface. In spite of being a commercial database it is widely being adapted by government, academic institutions, legal firms etc. The legal research service provides a quick access to jurisdictions of countries like UK, EU, US, Canada, Singapore also India as well. Working on two different platforms for Indian and International contents Westlaw India covers full text decision of Supreme Court since 1950 till date. The archives consist of decisions of High Court, Tribunals, Bare Acts since 1850 till date, Notifications, Circulars, Statutes and a lot more to browse and explore. After logging in to the Online Legal Research Service the main page offers a comprehensive collection of Cases, Legislations, Journals, Current Awareness of Indian, UK & EU Material in searchable and browsable format as well. To navigate to International material, check the link to International Material in the top bar onto the right side of the page legal literature beyond UK and EU.

### 3. Heinonline

Source: Home page of HeinOnline - Legal Research Database

With more than 182 million pages and 281,000 titles of Historical and government documents, 2800 law related periodicals on a variety of subjects, including animal rights,

human rights, political science, history, gender studies, election law, civil rights, foreign relations, and more. Heinonline is a premiere database which offers searchable image-based PDF format for a hassle free access to the user. The database covers the bridge gap and offers a convenient access to United States government publications since inception which are searchable into different facets.

To discover more the database is also indexed in many discovery services like EBSCO Business Premiere, Innovative' s Encore Duet & Discovery solution. Many Journals are also indexed in Google Scholar. In addition, the database offers one stop solution moving from law to history, politics and government. It also includes primary sources like case law and inclusion of secondary sources like law review articles makes it unique. Heinonline is presently offering the subscription of the database to more than 150 countries across the globe featuring the works from greatest minds in the legal history and rare historical documents which are only available in handful libraries across.

Worldwide Databases also mentioned HeinOnline Legal Classics - includes more than 10,000 complete works from some of the greatest legal minds in history including Joseph Story, Jeremy Bentham, William Blackstone, William Holdsworth, Henry Maine, Federick William Maitland, Frederick Pollock, Benjamin N. Cardozo, and many more.

A legal newspaper published by the National Archives and Records Administration coverage has been provided by HeinOnline Federal Register dating back to 1936.

Featuring the codification of the general and permanent rules and regulations, HeinOnline Code of Federal Regulations covers the content dates back to its inception for all 50 subject matter titles are searchable, including Food & Drugs, Energy, Banks & Banking, Domestic Security, Commerce & Foreign Trade, Securities & Exchanges, Employees' Benefits, National Defense, Public Health, Transportation and much more.

HeinOnline U.S. Congressional Documents - features the complete Congressional Record Bound version, as well as the daily version back to 1980 which includes Annals of Congress (1789-1824), Register of Debates (1824-1837) Congressional Globe (1833-1873), and Congressional Hearings (1927-2012).

HeinOnline World Constitutions Illustrated is also an very important juncture for researching on constitutional and political development of every country in the world. It includes the current constitution for every country in its original language format and an

English translation, as well as substantial constitutional histories for all countries. The resources on HeinOnline are updated monthly and the databases can also be accessed for the Mobile users on the go via their Android and iOS smartphones.

#### 4. Manupatra

The screenshot displays the Manupatra legal research database interface. At the top, there is a navigation bar with options like 'SIGN OFF', 'My Home', 'Manu Search', 'Legal Search', 'Citation Search', 'Assisted Search', 'Results', 'Doc', and 'Search History'. Below this, a yellow banner indicates 'Please note your Password expires in 110 day(s)'. The main content area is divided into several sections: 'MY HOME' with links to Manu Clip, Training Session, Desktop Alert Plus New, Feedback, and Sticky Note; 'PROFILE' with links to View Profile, Change Password, My Preferences, and Manage Search; 'VALUE ADDS' with links to GST Rate Finder, GST Important Dates, RERA Ready Reckoner, and COVID-19 Guidelines; 'NOTIFICATION' with a link to Messages; 'COMPARE PROVISIONS' with links to Constitution of different countries and 2 Acts: [Central - Central], [State: Central], [State: State]; and 'MORE' with links to Dictionary, Maxims, and Court Calendar. The page also shows a 'Messages' notification badge and a login timestamp of 14 May 2020, 1:46 PM.

Source: Home page of Manupatra - Legal Research Database

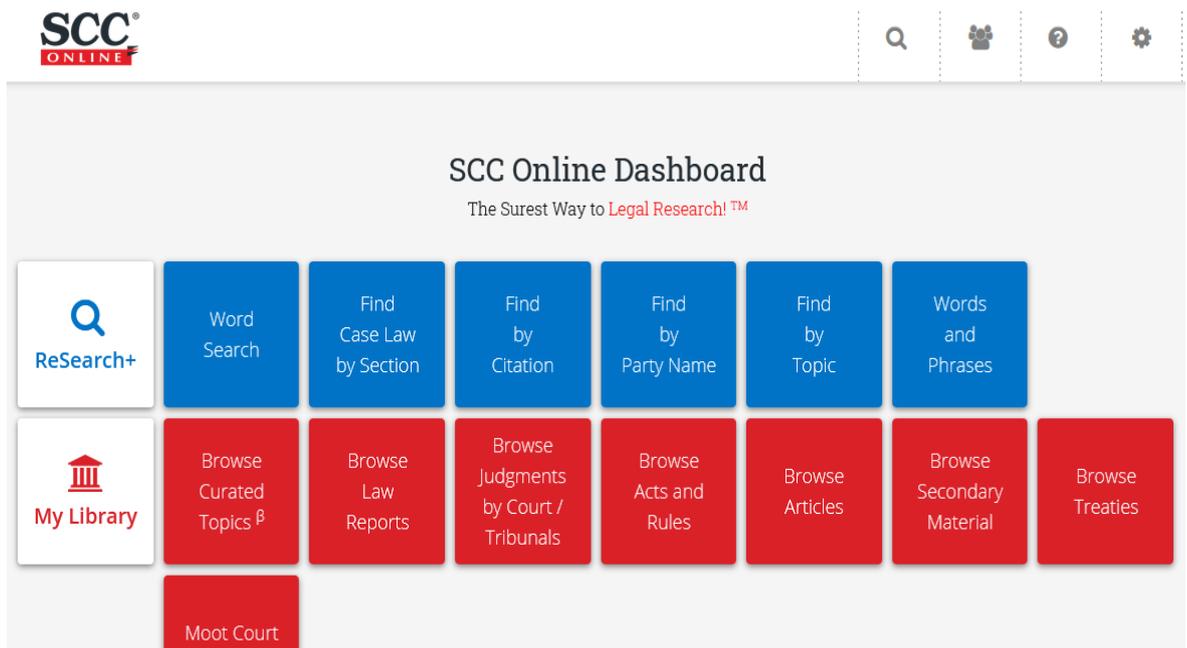
Manupatra is a comprehensive and a very vast legal database in India offering legal community a set of prime online service. It offers to a combination of legal and business modules as well. Being one of the largest content aggregator the database is equipped to handle exhaustive search queries through Manu search, Legal Search, Citation Search, Act search which could be further narrowed subject wise or in chronological order. A technologically driven database covers international material and also offer analytics and tools for better search results and interpretation. The database provides a visual delight to the users through case map, authority check, timeline, judge analytics and search analytics. In addition, it also offers citation analysis with cross citations of more than 300 journals, cited in para assists in going back and forth and moving in the relevant paragraphs directly where the relevant search has been referred. Manu cite further offers a complete view of list of cases referred in the current case. The database also extends certain valuable add on to filter or categorize the search results under various heads for easy navigation. The results can be filtered with Court, Document Type, Keyword, Subject, Judge etc. The option to print the document with or without

case note in pdf format provides an ease of access. The same searched document further can be shared through email providing a real time document sharing.

Under 50 different subjects of law the database has classified the Acts, Bills, Judgements for quick and easy retrieval. In Manupatra Taxonomy the topics and further subtopics are presented in a hierarchical pattern which supports the search with the keywords or terms associated.

The company Manupatra, started in 2001 and soon has emerged as market leaders while offering intuitive and smart search for legal content to support the lawyer's practice. Reinventing the legal research, the data base holds a capability to deliver the load of wide variety of queries for Legal Educational, Finance, Risk Management Intellectual Property, Tax Accounting and many more domains & sub domains. Offering a customized tailor made plans for subscription it is customer preferred service provider for decision support information.

## 5. SCC Online



Source: Home page of SCC Online - Legal Research Database

SCC Online is one of the distinguished legal research database which offers a highly valuable content from Indian to International front. The legal research database is known to be a product of Eastern Book Company publishes a huge set of cases, law reports, commentaries in both forms print and electronic. The company is very well

known for its contribution in the field of production of legal literature. With finest use of technology, the web edition of SCC Online was initiated in 2009 with coverage of 3.4 million documents from 20 countries around. The legal research service SCC Online stands for a synonym for prompt, reliable and authentic content delivery. The online database comes with a subscription package on user friendly interface offering both Indian and International content. To ponder a few Indian Case-Law of Supreme Court of India (1969 onwards) including the headnotes, Privy Council (1872-1949), The Indian High Court cases and Tribunal cases can be easily browsed starting back from 1779. Indian Statutory Law including central statutes, circulars, notifications, instructions, rules, regulations etc. Indian secondary materials consisting Constituent Assembly Debates, reports of Commissions and Committees including Law Commission of India, Bilateral Treaties. The database offers a platform for convenient search pattern with word search, search by case law, by citation, by party name, topic search and words and phrases search as well. The different search styles may continue to run through curated topics, law reports, judgements by court & tribunals. The database is enriched with a massive collection of well-known Law Journals and other related secondary material. covers Legal Articles of following journals:

- Supreme Court Cases (SCC)
- Practical Lawyer
- The Edict
- NUJS Law Review
- Asian Journal of AIR and Space Law
- The Law Weekly
- GNLU Journal of Law
- Development & Politics
- GNLU Law Review
- Developing World Review on Trade & Competition
- Singapore Academy of Law Journal
- Singapore Academy of Law Annual Review
- Dhaka University Law Journal New
- National Law School of India Review

It also includes reference materials and free resources on varies topics especially Intellectual Property, eLitigations etc. User also can browse a specialised set of Moot Court Resources.

The given table lists out the different operators used during the exploration on Legal electronic databases for searching the desired results where Yes is denoted with ‘Y’ and No is denoted with ‘N’. The table gives a bird eye view of different operators/connectors/symbols to bring out the desired results during the search operations.

Table 2 Operators/Connectors/Symbols used in Electronic Legal Databases

S.no.	Operators/ Connectors/ Symbols	Lexis Advance	Westlaw	HeinOnline	Manupatra	SCC Online
1	Phrase Search	Y	Y	Y	Y	Y
2	Proximity Operator	Y	Y	Y	Y	Y
3	Grammatical Connectors	Y	Y	Y	Y	Y
4	Universal Character	Y	Y	Y	Y	Y
5	Root Expander	Y	Y			
6	Wild Character	Y		Y	Y	Y
7	Fuzzy Search			Y		
8	Contextual Search					
9	Boosting a term			Y		
10	Negative Keyword (Exclusion)			Y	Y	
11	Turning Off Plurals and Equivalentents		Y			
12	Parenthesis	Y	Y	Y		Y
13	Contextual Search				Y	

### Comparative Table of Connectors/ Symbols/ Command used in Legal Research

In the days of lockdown due to COVID -19, the human beings are in great strides of technological developments. The virtual manifestation of Law library is the only relief to the legal researcher. The researcher for the different legislations or law related documents needs to access the legal databases to locate the right piece of information. In order to ascertain the desired results, the users generally run a search and generates a raw set of information in case not tuned to handle

the huge legal database properly. However, many training programmes regularly take place for such information literacy on regular intervals by the law library but it is essential for the researcher to proceed with the analysed set of results. While constructing a search query it is essential to retrieve the given results which saves your time and also leads to the target and the desired result outcome. To understand the right syntax to achieve the desired results instead of only working with jargons, given below is a comparative table of Connectors/ Symbols/ Command used in Legal Research. The given table is also a reflection of different Connectors, symbols, operators which are essentials to filter and narrow down the search results. The examples given are to understand the extent of use of operators. The tabular presentation helps to apprehend the function of the operator and further how to retrieve the results in the document during the course of locating the required legislation etc. Using these operators or symbols helps would prove to be methodical and provides the researchers with essentials skills in moving from searching to researching. Every database uses similar or different symbols and operators for running the search but it is important to get upto the required set of results in the stipulated time. The given search results should not only save the time of the researcher but should also eliminate the inappropriate hits. The given comparison not only supports and helps in identify the Boolean operators and Phrase search. The given set of examples extends the scope of research questions if combined well with proximity, grammatical or numerical search strategy. To further validate the use of wild character, root expander or universal character reduces the amount of right results generated during a search run on any of the legal database. Any of the Electronic database does not understand the natural language hence it becomes essential for a researcher to use any of the given character individually or in a combination to validate and get the outcome based on it. In the back and length of any of the research running the use of given set of Connectors, symbols or operators yield in jargon free results in stipulated time.

Table 3 Comparison of different operators, symbols or connectors used in the Electronic Legal Databases

Name of the operator	Function	Lexis Advance	Westlaw	HeinOnline	Manupatra	SCC Online	Example	Retrieves document
<b>Boolean Operator</b>	Locates two search terms in a document	AND or &	&	AND	There is no need to input "AND" or "OR" between keyword. Search will automatically take care of all these thing. First, Search will try and look for documents that match all the words and will display them and if none is found, it will look for documents that match any of the keywords.	AND	probate and damages	The search retrieves both "probate" and "damages"
	Locates document with either or both words	either "OR" or a space between two words	or	or / +  <i>The + (or required) operator dictates that the term after the + symbol MUST exist somewhere in a single document</i>		OR	Teacher or Professor  Teacher OR Professor +Student	The search retrieves either "teacher" or "professor" or both
	Use NOT to exclude term(s) from your search results.	AND NOT / % / BUT NOT	But not or %	NOT		NOT	The search retrieves higher education NOT community colleges	

Name of the operator	Function	Lexis Advance	Westlaw	HeinOnline	Manupatra	SCC	Example	Retrieves document
<b>Phrase Search</b>	use quotes to search for a phrase	“ ”	“ ”	“ ”	“ ”	“ ”	"love canal"	will search for documents containing the exact phrase "love canal"
<b>Proximity Search Or Grammatical Connectors &amp; Numerical Connectors</b>	Locates documents with two terms in the same paragraph	/p	/p <i>The search will retrieve the first term preceding the second within the same paragraph: "right +p counsel"</i>	w/p or /p	/p		Wrongful /p death	The search retrieves the words "wrongful" and "death" in the same paragraph
	Locates documents with one word within a number of words of the other	/n <i>(value of "n" can be any number up to 255)</i>	/n <i>The search will retrieve the first term preceding the second by "n" terms (where "n" is a number): "capital +3 punishment"</i>	/# Jury /5 discrimination	Select the option - NEAR EACH OTHER	NEAR compensati on NEAR "land acquisition"	patent /10 infringement	The search retrieves the word "patent" within ten words of the word infringement

<b>Name of the operator</b>	<b>Function</b>	<b>Lexis Advance</b>	<b>Westlaw</b>	<b>HeinOnline</b>	<b>Manupatra</b>	<b>SCC</b>	<b>Example</b>	<b>Retrieves document</b>
<b>Grammatical Connectors</b>	Locates documents with terms in the same sentence	/s	/s <i>The search will retrieve the first term preceding the second within the same sentence: "burden +s proof"</i>	w/s or /s	"corporate tax "s	NEAR	Wrongful /s death	The search retrieves the words "wrongful" and "death" in the same sentence
<b>Universal Character</b>	Replace one or more Characters	*	*	*	*city will match city, capacity, complexity, specificity	brief*	<i>m*n</i> col*r finds not only color and colour, but hundreds of other words.	The search retrieves with the word "man" or "men"
<b>Root Expander</b>	Retrieves word with variant ending	!	!				<i>lend!</i>	The search retrieves with the words "lender" "lending"
<b>Wild Character</b>	To search for words where there may be variations of the word that	? <i>Use one ? for each variable letter.</i>		?	'?' will match word, ward	?	i.e. te?t , w?rd	The search will produce results that contain text or test. Word or ward

	you want included in your search				*nand? will match Nanda, Nandy, Kesavananda, Gokulananda, Nityananda			
<b>Name of the operator</b>	<b>Function</b>	<b>Lexis Advance</b>	<b>Westlaw</b>	<b>HeinOnline</b>	<b>Manupatra</b>	<b>SCC</b>	<b>Example</b>	<b>Retrieves document</b>
<b>Fuzzy Search</b>	To search for terms similar in spelling to another term. Like proximity searches, fuzzy searches use the tilde symbol as an operator.			~ <i>To search for terms more similar to the word roam than what the default parameter of 0.5 produces: roam~0.8</i>			roam~	This search retrieves the terms like foam and roam
<b>Boosting a term</b>	The caret symbol (^) with a boost factor at the end of the term. The higher the boost factor, the more relevant the boosted term.			(^)			Iroquois Indian and the term Iroquois is more relevant than Indian, boost it using the caret symbol along with a boost factor number next to the term	The search will retrieve term: Iroquois^4 Indian - This search will make the term Iroquois more relevant - Boost phrase terms as in the example: "Iroquois

								Indian”^4 “Indian Customs” - By default, the boost factor is 1. - Although the boost factor must be positive, it can be less than 1 (for instance, 0.2)
<b>Name of the operator</b>	<b>Function</b>	<b>Lexis Advance</b>	<b>Westlaw</b>	<b>HeinOnline</b>	<b>Manupatra</b>	<b>SCC</b>	<b>Example</b>	<b>Retrieves document</b>
<b>Negative Keyword (Exclusion)</b>	The - (or prohibit) operator excludes documents which contain the term after the - symbol. <i>NOTE: If using special characters in a search, the – must have a space before the special character, but not after.</i>			-	-		To search for documents which contain “watershed planning” but not “watershed system”	The search query will retrieve “watershed planning” - “watershed system”

<b>Turning Off Plurals and Equivalentents</b>	Turns off plurals of a particular term by placing the # symbol in front of the term.		#				#child	To retrieve child but not children enter #child. Placing the # symbol in front of a term turns off the automatic retrieval of equivalencies.
<b>Name of the operator</b>	<b>Function</b>	<b>Lexis Advance</b>	<b>Westlaw</b>	<b>HeinOnline</b>	<b>Manupatra</b>	<b>SCC</b>	<b>Example</b>	<b>Retrieves document</b>
<b>Parenthesis</b>	To search grouped clauses to form sub queries	() (car or automobile) /p (injury or harm)	()	()		()	(water shed or "water rights") AND planning	will produce documents that contain either watershed or water rights and planning
	To match only those documents in which all the keywords specified in your query				@		to find documents with 'corporate', 'tax' and 'law' within 5 words of each other and in the same order as specified, you can use the	"corporate tax law "@5

							Ordered Proximity Operator.	
<b>Contextual Search – Sentence</b>	To match only those documents in which all the keywords specified in your query appear within a Quotation, you can use the Contextual Search within Quotation.				/q		"corporate tax law"/q	
	You can mix Contextual and Proximity Search if you would like specify the scope (Para, Sentence, Quote) as well as the distance of search keywords.				/s @s /p @p		"corporate tax law"/s "corporate tax law"@s "corporate tax law"/p "corporate tax law"@p	

## **Conclusion**

Presently in the harsh light of COVID-19 not only we the human beings but even legal system is also changing. The signs of technically developed legal culture is developing. COVID – 19 is very different, it has brought a lot of change just within few weeks in the style we live, we work or we survive. The whole world has now transitioned to Online learning. This transformation is very much evident in the culture of legal information as well. In this data driven race, the Law libraries are providing a secured access to the resources all across. The Electronic Legal Databases once again have given a window of opportunity to the legal research community. The collective commitment of the Law Libraries to serve their users is rolling with the norms of social distancing and remote working. Henceforth, to conclude the use of Electronic Legal databases, this comparative study becomes of paramount usage for the researchers working on the huge data retrieval resources. To gain the wisdom to access, these Electronic Legal resources it is important to attain and adapt the deep insight of legal documents it offers. By adopting the rationale offerings of these databases is just not what is required. The legal researcher during the journey has to begin from scratch and these Electronic Legal Databases offers a great support. With the enhanced search techniques using the Connectors, Symbols and Operators to ascertain the required results by penetrating to the depth of the legal record is the real achievement. In order to assimilate and reach to the scrutinized outcome during the legal research the given table of connectors, symbols and operators is to be extensively used by the researchers. The study given is synchronized exploration which offers individual or a combined use of operators during the process of legal advent. The comparative study will be a key element to get rid of set of non-essential data which validates the significant usefulness of the Electronic Legal Databases. Believing in the fact that with the support of Electronic Legal Databases the access to full text legal documents in the present time of disaster has been appropriately given for the users to make the best use out of it. Finally, against all the odds and challenges the Law libraries are taking this Pandemic as an opportunity to reach out and serve its users. This study hence will open up a culture of knowledgeable access to the Electronic Legal Database with the easy to understand approach.

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